

THE
JOURNAL OF HORTICULTURE,
COTTAGE GARDENER,
AND
COUNTRY GENTLEMAN.

A CHRONICLE OF THE HOMESTEAD. POULTRY-YARD. APIARY, & DOVECOTE.

CONDUCTED BY

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LIBRARY
NEW YORK
BOTANICAL
GARDEN.

VOLUME XXVII., NEW SERIES.
VOL. LII., OLD SERIES.

LONDON:

PUBLISHED FOR THE PROPRIETORS, 171, FLEET STREET.

1874.

712
July Dec.
1874
187

LONDON:
PRINTED AT THE JOURNAL OF HORTICULTURE OFFICE,
171, FLEET STREET.

TO OUR READERS.

THE following are extracts from letters received during the last month of 1874:—

“At the gable-end of a gardener's house not far from my own is the tallest and widest-spreading Elder tree I have ever noticed. He told me yesterday that he calls that tree ‘The Cottage Gardener,’ for he and his sons rest under it; his fowls roost in it and eat its berries; and his bees visit its flowers.’ ‘We have wine from it,’ he added in conclusion, ‘all the year; and those little neighbouring dwarf Elders with leaves like it, but never growing or bearing fruit, we say are ‘The Cottage Gardener's’ opponents.”

One of the first members of our staff, in partly retiring, but to be succeeded by his son, says—

“I lose none of my interest in the old paper, and if I can be useful shall be its humble servant. I shall always look with pleasure, and something akin to gratitude, to my association with you in its columns, and have every good and hearty wish for the success of the ‘Journal,’ and kindest feelings for its Editors.”

We are proud of such communications, for they testify that we have true and able contributors, that you, our Readers, appreciate them, and that neither contributors nor readers think unkindly of

THE EDITORS.

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WEEKLY CALENDAR.

Day of Month.	Day of Week.	JULY 2-8, 1874.	Average Temperature near London.			Rain in 49 years.	Sun Rises	Sun Sets.	Moon Rises.	Moon Sets.	Moon's Age.	Clock before Sun.	Day of Year.	
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From observations taken near London during forty-three years, the average day temperature of the week is 71.5°; and its night temperature 50.5°. The greatest heat was 97°, on the 3th, 1852; and the lowest cold 35°, on the 7th, 1861. The greatest fall of rain was 0.78 inch.

MUSCAT GRAPES.



MATEURS generally seem to think there is something difficult or mysterious about growing Muscat Grapes, and the same feeling is not altogether absent from professional gardeners. The poor appearance of this class of Grapes, too, at many establishments where other sorts are well grown, tends to confirm the idea that there is some mystery about their culture. Once get rid of these wrong notions, and the culture of the Muscat of

Alexandria becomes as simple as that of the Black Hamburgh. It is necessary, however, to bear in mind two or three facts concerning it: It does not flower so early as the Black Hamburgh; it takes a longer period than that variety to ripen to perfection, for instance, supposing the Black Hamburgh takes five months and a half, the Muscat of Alexandria and its varieties will take seven months; it wants more light than black Grapes do, for the latter will colour perfectly under the thickest foliage. Muscats must have space between the leaves for the light to reach the fruit. Excepting in the hottest part of summer, they will bear the sun shining directly on the fruit. They are also grosser feeders than the Black Hamburgh.

Muscat Grapes can be grown with a certain amount of success in a Black Hamburgh house, but owing to their flowering and ripening at a later season than the Hamburghs, they cannot be expected to grow to perfection there. If Grapes with a Muscat flavour are required from a Hamburgh house it is better to depend on some of the early Frontignan varieties, which flower and ripen about the same time as the Hamburghs, and can be grown perfectly with them.

Where a house cannot be devoted specially to Muscats they can be grown to great perfection in a house with such sorts as Lady Downe's, Alicante, and Mrs. Pince, taking care to afford them more room than the black varieties, for the reason I have already given—that they require more light. The best place to grow them, where a large quantity is required, is a good-sized span-roofed house, with the ends running north and south; they there get the benefit of the sun all day long; it shines most directly on them in the morning and evening, and they are partially shaded at midday by the rafters. The Vines should not be planted nearer together than 5 or 6 feet if they are intended to be kept to one main rod; if they are not intended to be restricted to one rod, they should then be allotted a similar space for each main stem that is allowed to grow. The weight of fruit will be as great as if the Vines were crowded, and the quality, of course, will be infinitely superior.

It is altogether a mistake to suppose that Muscats require more fire heat than other Vines. I never attempt to keep them higher than 55° during cold nights in the spring, and they are often as low as 50°, even when in flower. As for setting, I can assure my readers that I have had as much difficulty to thin Muscats this season as I have had to thin Hamburghs. I believe the prin-

cipal cause of bad setting is too much fire heat and too little air and water.

Muscats should not be kept stopped too closely while the fruit is swelling. Stop them at first three or four leaves beyond the bunch, then allow them while they are flowering to make another leaf or two, and also during the second swelling. Till the fruit is nearly full grown, they should be allowed to make as much foliage as there is room for without obstructing the light from the fruit. When the fruit is fully grown, some of the immature shoots may be cut off, which will hasten the ripening of the principal eyes for the coming season.

Such plants as Azaleas, Fuchsias, Gardenias, Geraniums, &c., can be grown perfectly well in the same house up to the middle or end of May; after which time only such things as grow best in the shade can be accommodated.—WILLIAM TAYLOR.

ANTHURIUM SCHERZERIANUM CULTURE.

YOUR correspondent "T. J. H." asks me to say a few words respecting the culture of this now well-known and much-valued plant, and truly they must perforce be few, for I really know of nothing requiring less care and trouble than the plant in question. I have often thought it a nice subject for discussion and a puzzle for the judges when I have seen this plant staged as one in a collection of stove and greenhouse plants in flower, when really it often has not had a single flower open upon the spadix. I have known people assert that the spathe was really and truly the bloom, but few of my readers will have fallen into this error. For matter of argument we might say Anthurium Scherzerianum cannot be classed as a first-rate ornamental-leaved plant, because the foliage is not sufficiently attractive to allow of its admission to this section. Then, again, it is not a plant remarkable for the beauty of its flowers, for these are extremely small and unattractive; but the beauty and brilliancy of its spathe or floral leaf is such that it at once carries the day against all competition, and lands it quite in the front rank, in spite of the immense number of exotic gems which now serve to enchant our eyes in the gardens of horticulturists throughout the length and breadth of the three kingdoms. I have heard the question raised as to whether it should take rank as a stove or greenhouse plant, but I think there cannot be a shadow of reason on the side of those who argue for the latter. True, during some four months of summer it thrives admirably in the greenhouse or conservatory, but it is too frequently forgotten that in such structures the thermometer ranges very high during summer, but that if the plant were left in the same position all the winter it would present a woe-begone appearance, if, indeed, life existed in it at all.

There are many varieties of this plant now to be found in our plant houses, some of which have been imported direct, but the greater number of our plants are home seedlings. However, amongst the thousands which I have seen I could not say I have met with even one which

could be called worthless. The large-spathed form is truly the most magnificent, and as an exhibition plant is by far the most valuable; but for home use, and for the decoration of apartments, the somewhat smaller variety with a rounder spathe in my opinion is much the best; it has the advantage of being more compact in growth, and, moreover, produces a larger amount of spathes in proportion to the size of the plant. Another striking form, which has obtained the name of longispatha, is also very desirable, as being thoroughly distinct and brilliant in colour. It is not, however, my intention in this place to enter into a detailed account of all the various forms; suffice it to say much depends upon the style of treatment the plants receive. None in a young state produce large spathes, these only come with age and vigour. At the same time I do not wish my readers to imagine that one form can be grown into the other by skilful management.

In many instances a great mistake is made in potting this plant. It not unfrequently happens during my peregrinations that I find it growing slowly, or in fact badly—the result of being potted too firmly, and that, too, in close binding soil. This I consider is a shoal my readers should steer clear of, for I have never upon a single occasion found anyone excel whilst practising this system. In potting Anthurium Scherzerianum the first thing to secure must be good drainage; for although it enjoys copious supplies of water, everything that would stagnate and become sour must be kept from coming into contact with its roots. The soil with which I have obtained the greatest success is a mixture consisting of about two parts good fibrous peat broken up rough, one part light turfy loam, and one part sphagnum moss; to this I add sufficient silver sand to make the whole feel gritty when taken in the hand. Let it be well mixed together, but keep the sieve out of sight. When the soil is ready proceed to repot the plant, and in doing so it is the fashion to elevate the soil into the shape of a small cone, after the style or system adopted in potting Orchids. To this I have no objection, because it provides the roots with more surface room, and at the same time adds somewhat to the appearance of the plant, otherwise I know of no reason for the adoption of the system. In potting, press the soil down firmly, but not hard, and finish up the surface with a layer of living sphagnum; this latter is more for appearance sake than a necessity, but still the roots do love to creep through the growing moss.

As before remarked, this Anthurium enjoys an abundant supply of water, both from can and syringe, but that from the latter should be withheld to a considerable extent during the dull days of winter. In the growing season the plant will not object to any amount of heat, but the atmosphere must be well charged with moisture, and the lowest temperature to which it should be subjected at this time is about 65°. If the specimen is strong and in good health, the grower may calculate upon having a spathe produced from the base of every new leaf the plants make, which will continue in their full blaze of beauty between three and four months. If the plant has already become large enough to fill a pot of goodly dimensions, there is no necessity to repot annually; it will be found sufficient to remove the surface soil with a potting stick, and replace with a compost prepared as previously directed.

If the above simple directions be followed, no difficulty will be experienced in the culture of this showy and beautiful Anthurium, which has not inaptly been called the "Flamingo Plant."—EXPERTO CREDE.

JUDGING MELONS—READ'S SCARLET-FLESHED MELON.

I AM always on the look-out for first-class Melons. They are more difficult to grow and finish satisfactorily than the Pine Apple—the acknowledged "king of fruits." At the late show at South Kensington (June 4th and 5th), though there were eighteen fruits exhibited, there was a great want of finish throughout. They were not fully swelled, and scarcely netted. I looked in vain for Read's in the Scarlet-fleshed class, to see what it was ripened three hundred miles south of where I live. Scarlet Gem, the type of Read's, carried off the first and second honours, which led me to conclude that flavour is all our judges care about in Melons. Fruit of handsome shape—spherical, elliptical or oval—plump, well swelled, without ribs, netted all over, and finely coloured, go for nothing; if an ill-grown, misshapen, ribbed, smooth-rinded, and small Melon has flavour it takes the first rank. I know fruits are

grown to be eaten, not looked at; but you may contend that the leg of a mountain sheep is far sweeter mutton than that of a Leicester, the former weighing 6 lbs., and the latter twice as much. Some would be content with the small fruit, but for appearance—and I hold it is all-important on festive occasions, when the dessert is required to be noble—there is no question that the large one is the more appetising. The great aim of the cultivator is the same as that of the cattle-breeder and feeder—viz., to diminish the coarse parts and increase the "flesh." The lean beast need not enter the lists with the thoroughly-conditioned animal; but with Melons it matters not how small and mean-looking they may be so long as they have flavour.

It is well known that in some kinds of fruits, and I may say generally all descriptions, the smallest examples, not the consequence of overcropping, have the highest flavour; no Pine Apples compare with the Queen in summer, or the Jamaica or Montserrat in winter. Muscat of Alexandria is far before all other Grapes in the crackling flesh, just as the Hamburg is in the sugary juice. The Royal George is the sweetest of all Peaches; the Green Gage of Plums; the May Duke of Cherries; Winter Nelis of Pears; and Ribston of Apples. I admit this; but ought it to follow that because a known kind is the best in flavour, it should upon an exhibition table be honoured to the exclusion of superior qualities for consumption in others? Could not quality advance with size? A Melon of 4 lbs. can surely be grown as high-flavoured as one of 2 lbs. or under. Quality requires to be taken relatively, for in many cases it is only a question of culture. The large fruit may be wanting in flavour from being grown under conditions favourable only to size, the weightier conditions of quality-giving not being considered. It is possible to give fruits immense proportions by feeding, but this, unless accompanied by increased facilities for the elaboration of the juices, tends to inferiority of flavour. On this account only can I account for Melons being judged by flavour, which results from good cultivation—as giving the plants the needful heat, moisture, air, light, and root-support. There is, too, a flavour inherent in certain kinds of fruit. Grow one such under similar circumstances to another, and it will ever be superior-flavoured, and if the judging go by flavour will always be first. It is evident, therefore, that judging Melons is only a question of tasting; and as taste differs so greatly, I do not perceive how any satisfactory inference can be drawn by an on-looker. A novice could see why the first or second prize is given for Pine Apples, Grapes, or Peaches; but no one, except an adept at Melon-cutting, could tell why that small Melon should be first, when there are others far nobler and handsomer in appearance.

Now, I do not consider that flavour should be the sole test in judging Melons; I do not think any person has at all times the same sense of good and ill flavour. I confess to not liking a small Melon, for in such there is a greater proportionate waste than in a large one. Then there is the mutilation, in fact destruction, of the fruit consequent on tasting. If Melons cannot be judged by their external appearance, how is it most other fruits can be so judged? Under the rich yellow skin of a Muscat Grape everybody concludes—in fact it is never questioned—that the flavour is high. With black Grapes it is the same: if the bunches are compact, the berries large, black as jet, and well furnished with bloom, flavour is presumed. It is the same with Peaches: if they are well-swelled, well-coloured, the flavour is not called in question. The consequence is the fruit after exhibition can be used for their owner's dessert; whereas in Melon competition the fruit, whether successful or not, is lost for that purpose. The cutting also spoils their appearance on the exhibition table.

There are some facts in connection with the flavour of Melons which lead me to conclude that they may be judged satisfactorily without cutting, and to these I will briefly allude, observing first, that Melons are of two types—spherical and elliptical. The former are round, flattened at each apex like an Orange, original representatives of which are the Egyptian in Green-flesh, and the Cantaloup among Scarlet-fleshed. Melons of the second type are oval, as the Persian and Cabool, originally white, yellow, or green-fleshed, but now having scarlet-fleshed varieties. The Beechwood was originally from Persia, and oval, but the best fruit are now spherical, the original form having been altered considerably by cross-breeding.

The very circumstance that Melons are always cut shows that flavour has advanced very little, and the advance is always

open to question. True, we have varieties annually certificated, described as the finest yet tasted, and these soon pass away, giving place to others; but the broad fact is the first honours at exhibitions continue to be taken by older sorts, or slight removes from these, under the designation of hybrids or seedlings.

The best Melons are those which are not ribbed, but are perfect in evenness, whether the form is round or oval. Examples in the spherical form are Scarlet Gem, Malvern Hall, and Read's Scarlet-flesh, in the Scarlet-fleshed class; Golden Gem, Beechwood Improved, Bromham Hall, slightly ribbed; and varieties of the Victory of Bath race, as Gilbert's and Royal Horticultural Prize. Of elliptical forms the best are Moreton Hall in Scarlet-fleshed, and the Persian, Trentham Hybrid, and Gilbert's and Meredith's Cashmere. Melons which have no ribs, or but slight ones, and have thick short footstalks, and hard shell-like skins or rinds, are subject in ripening to part from and crack round the junction of the footstalk with the fruit if the soil or atmosphere is at all moist, and which do not give off a powerful aroma, are invariably the highest in flavour. Fruits with these characteristics are mostly solid, not hollow in the centre; the seeds disposed in the central flesh, and few, not occupying more than one-third the fruit, the remaining two-thirds being eatable flesh, with a skin of about an eighth of an inch thick. Very few Melons unless netted at the end of the fruit next the footstalk are good in flavour, and as a rule the more netted and hard the exterior the more concentrated are the juices and the flavour high. High colour is no criterion of flavour; and powerful aroma is equally uncertain as indicating high flavour. Deep-ribbed Melons, the skin spotted or dappled green, yellow, and white, as some are very prettily, roughly netted, warted, or earbunneled, and with powerful aroma, are usually hard-fleshed and hollow—not melting, juicy, and rich-flavoured, but very poor in flavour, and having thick rinds or skins.

Judged by qualities externally observable, characteristic of a high-flavoured Melon, we should have—Rotundity, perfect freedom from ribs, 6; netting, if finely netted all over or at the stem end, 3; colour, 1; size, 1; and aroma, 1; or twelve points. New kinds to be scrutinised by the foregoing standard, and compared for flavour with some standard kind of known high flavour. The staging of "seedlings" and "hybrids," which latter are properly cross-breeds, along with older kinds, causes the cutting of all to glean the simple fact whether the new are superior to the old in flavour.

These remarks are offered as suggestions, and I should be glad to hear the views of others. I would fix the lowest weight at 2 lbs., it would not rise above 4 lbs., if the fruit were up in all the other points. The weight might be ascertained by the circumference. A Melon 1 lb. in weight is 1 foot in girth; 1½ lb., 1 foot 2 inches; 2 lbs., 1 foot 4 inches; 3 lbs., 1 foot 6 inches; and 4 lbs., 1 foot 8 inches. The weight of elliptical-shaped Melons may be ascertained by taking the circumference round the middle and that lengthwise of the fruit, adding both together and taking the mean; for instance, a Melon of oval form 1 foot 10 inches round lengthwise, and 1 foot 6 inches round the middle, will have a mean circumference of 1 foot 8 inches, and weigh 4 lbs.

To return to Read's Scarlet-fleshed. I had a two-light frame, and a plant was put out under the centre of each light. It progressed famously, setting its fruit freely, and so many setting numbers were cut off, six fruit being left on each plant. I had an idea from its free-setting that it was a small kind, like Scarlet Gem, Wills's Oulton Park, and some others of this type, and only regret the fruit were not reduced to three, or at most four, on a plant. They ripened the second and third week in June. The heaviest weighed 3 lbs., and the others downwards to 1 lb. The plants have been cut-back, and will apparently soon be in bearing again. I have no experience of it in pits or houses heated by hot water. The fruits were quite round, beautifully and closely netted all over, and to the touch hard as a cricket-ball. It cracked, or rather the footstalk showed signs of parting from the fruit when ripening. The aroma was not remarkable. I thought it faint, but no cracked fruits occurred, all being cut off as soon as ripe, which they are when cracking or parting from the footstalk, and Melons are best kept in fruit-rooms to ripen if full flavour be wanted. The flesh is thick, fully two-thirds that of the diameter; the seeds not numerous, and very few sound in the one tested; the rind very thin, a mere hard thin shell; flesh scarlet, firm, but melting, rich, and most excellent. It is the best in flavour of any scarlet-fleshed Melon I have tasted,

whilst in appearance it is the handsomest, not being in the least ribbed.—G. ABBEY.

NOVELTIES IN THE ROYAL GARDENS, KEW.

In the stove are two new *Eranthemums* from the South Sea Islands, introduced by the Royal Gardens. They have coloured foliage, and are likely to be cultivated on that account; they are not yet named. No. 1 is of erect habit, with broadly ovate leaves about 9 inches long and of a uniform colour, similar to that of a Copper Beech or Hazel. It is distinct in habit from all other plants with dark foliage. No. 2 has a freely-branched habit; the leaves are lanceolate, with bright yellow reticulation, sometimes with scarcely a trace of green. It is very distinct, and is likely to be valuable. Plants newly propagated do not always show the golden character. It was exhibited by Messrs. Veitch a short time ago in fine condition. Besides these, another new variety was imported at the same time, but which was already introduced. It is on the Continent, and at least two London nurserymen have a good stock. It is a handsome plant when in its best condition, has ample foliage variously variegated with creamy white. All the above are of free growth and easy propagation. They require an intermediate house or stove; the treatment for other members of the genus will suit them well. The first two, if not already, will soon be obtainable from the leading nurserymen. Here also *Ataccia cristata* is in flower. The long, sterile, drooping pedicels, which are the most attractive feature, with the queer flowers and leafy involucre, compose a most grotesque inflorescence. A close ally is in fruit, the new *Tacca artocarpifolia*, from Madagascar. It is, perhaps, more curious and ornamental than the preceding. It has divided leaves more than 2½ feet across, and sends up a scape over 5 feet in height; the sterile pedicels are about 1 foot long, and still remain, though in withered condition.

The most beautiful flowers newly open among the Orchids are *Disa grandiflora*, a healthy plant; *Trichopilia Galeottiana*, two varieties, concolor and picta, in the same pot—the latter has the lip slightly spotted with pale red; *Aërides Lobbi*, and the curious *Cirrhaea saccata*. *Dendrobium Pierardi* is very beautiful, so also is a variety of *Lælia purpurata*, white, with the exception of the lip. *Oncidium luridum* has a fine spike of bloom 7 feet long.

At the Rockwork is an interesting and beautiful hybrid *Saxifraga*, *S. autumnalis* × *S. mutata*. It is best described as being intermediate between the parents. It has a branching habit, and is easily cultivated. There is also a splendid Orchid, the name of which has not yet been given. It is 2½ feet in height, and has a dense spike of purple flowers. It grows freely planted in peat, and is very ornamental.

In the Herbaceous Ground, *Aphyllanthes monspeliensis* is nicely in flower. *Centaurea* (*Rhaponticum*) *pulchra* is ornamental from its neat foliage and numerous pink-flowered capitula. *Antirrhinum numidicum* has been described among the "novelties of the present season," and from two sources it proves to be *Linaria triphylla*. *Campanula Medium* var. *calycanthema*, from its petaloid calyx, presents a more conspicuous mass of colour than the species. *Carex pendula* is very ornamental; it has long drooping spikelets, and is worth planting for effect in suitable places. *Penedanum officinale* (in the Economic Ground) is one of the most ornamental of the fine-foliaged Umbelliferae. It produces a round mass of finely-divided foliage, which is more evenly disposed, and is not so stiff-looking as the *Ferulas*; the height of this specimen is about 3½ feet. The yellow foetid juice was formerly used against hysterics. *Athamanta Matthioli* is a good plant of similar character, but smaller dimensions; it is now conspicuous from its numerous umbels of white flowers. The double varieties of *Papaver orientale*, of which there are many colours, are very ornamental, and are useful for sowing in rough corners, where they often make a display without trouble.

In the old Victoria house, where the Victoria regia has this year been planted, *Batatas paniculata* is commencing to flower freely. If I mistake not, the writer of an article in a continental paper recommended its being planted out of doors on a wall. *Euryale ferox* is in flower; as an aquatic it must rank next the Victoria for nobility of appearance. It is grown for the sake of its seeds in China, which, after being baked, are eaten. The deliciously fragrant and beautiful flowers of *Nelumbium speciosum*, the "Sacred Bean," are being produced freely. "The seeds and stem, which contain much starch, are used as food in India and China" (*Museum Guide*).

Chlorocodon Whitei is in flower in the Palm house, "the aromatic roots of which are extensively collected and sold by the native tribes as 'Mundi' or 'Mind,' and used by them as a stomachic" (Dr. Hooker, "Bot. Mag."). It is a curious *Asclepiad*, a native of Natal. It has large evergreen foliage, and would be useful where a climber of that character is required. Pieces of the root grow freely, and it requires a warm greenhouse or stove. It was figured in the "Botanical Magazine" of 1871, when the above name was given. *Pavetta caffra* is very pretty; it is covered with white flowers, and from the protrusion of so many styles it has a light appearance.

In the Temperate house the beautiful *Spiraea palmata* is very attractive. It does not seem to be much grown for conservatory decoration, though eminently suited for the purpose. "By far the handsomest species of the genus hitherto imported, and certainly one of the most beautiful hardy plants in cultivation; the deep purple red of the stems and branches passing into the crimson purple of the glorious broad corymbs of flowers, contrasts most exquisitely with the foliage, which in autumn assumes beautiful tints of brown and golden yellow" (Dr. Hooker, "Bot. Mag.," 1868). *Cyphomandra betacea* is very ornamental in one of the beds; now coming into flower, it still retains a number of the fruits of last year; they are the shape and size of a hen's egg, reddish yellow in colour, and hang by slender stalks from the rigid branches; they remain on the tree altogether about fourteen months. The plant is cultivated in South America for the sake of the fruit, where they are used in a similar way to the Tomato.

In the Succulent house are the three plants supposed to be lost to cultivation at page 514 last week—*Kleinia* or *Cacalia articulata*, the Candle Plant; *Crassula imbricata*, under the preferable name *C. lycopodioides*, which, according to the laws of botanical nomenclature, is the one that should be upheld; and *Monanthes polyphylla*, which should be replanted in pans at least every year, otherwise it is liable to lose vigour and at last to die.

MIDLAND COUNTIES GRAND HORTICULTURAL EXHIBITION,

AT ASTON PARK, BIRMINGHAM.

THE arrangements for this great Exhibition, which may be said to take the place of the large provincial Show of the Royal Horticultural Society, which will not be held during the present year, are in a very forward state, and are being worked-out with spirit. The large tent occupied by the Royal Horticultural Society in 1872 has been roofed over, and formed into two longitudinal divisions. The northern division is wholly covered-in with glass. One half of this is fitted-up with a hot-water apparatus, and is used by Mr. Quilter for the growth of the large specimen Palms, tree Ferns, and other tender-foliaged plants. These will still continue to occupy the centre of the house, and will be an imposing feature; but all round there is a staging which will accommodate the Orchids, new plants, tender specimens, &c. The other half, which is used as a winter promenade, will be fitted-up to contain table-decorations, of which a large number of elaborate designs are expected, bouquets, button-holes, &c. The structure is airy and lofty, and the necessary means have been taken to mitigate the effects of the sun's rays, and make it pleasant for the visitors. The other longitudinal division is planted with *Rhododendrons*, *Clematises*, &c., with a broad winding path down the centre; and in addition it will afford accommodation for miscellaneous collections of plants tastefully arranged.

An immense tent, lofty, airy, and of great strength, will contain all the large collections of plants, with ample space at the side for smaller groups. Another long tent will be occupied by the cut Roses, cut flowers, &c.; and another by the fruit and vegetables. They will be so arranged as to afford as far as possible a continuous promenade. Every facility will be afforded exhibitors to secure a proper staging of their plants; notices containing a list of the classes to be staged within will be posted at the entrance to each tent, and attendants will be found in each to indicate the proper position for the plants, and otherwise assist exhibitors; and, in fact, every precaution will be adopted to secure the rapid staging of the plants, a comprehensive arrangement, and such a prompt clearing of the tents, that the judging may be got through quickly and uninterruptedly, and the tents thrown open to the public at the announced time. The disposition and arrangement of the plants will be under the superintendence of Mr. Thomas Baines, of Southgate, and Mr. William Spinks, Mr.

Quilter's foreman, and formerly of Chiswick. As soon as possible after the work of judging shall have been completed, lists of awards will be posted at the entrances to all the tents.

The comfort and convenience of the exhibitors will be carefully looked after by Mr. Quilter. One room will be set apart as a meeting-place for horticulturists, where appointments can be made, and friends meet together. Another will be fitted-up as a temporary reading and writing room—a want always felt at large gatherings. A cold collation will be provided every day from twelve to four, at a moderate charge, and the tariff of refreshments supplied on the grounds will be arranged in a like spirit.

On Wednesday, July 8th, the judging of the implements and the trial of lawn-mowers will take place. This is a most important and extensive feature of the Show, and the great desire of Mr. Quilter is to afford opportunities for displaying all the newest improvements in garden appliances. The lawn-mowing contest is so arranged as to afford every exhibitor an opportunity for fully testing the capabilities of his machine. Mr. Charles Quilter will have the supervision of this part of the Exhibition.

A horticultural dinner will take place in the afternoon of the second day, when the Mayor of Birmingham will take the chair, and the cost of the dinner has been fixed at a price that will bring it within the reach of all.

AMONG THE NORTH-FOLK.—No. 1.

THAT is Camden's name for the county, and far superior is it to our curt corruption, Norfolk, or, as our base pronunciation still further mangles it, Norfuk. However, the North-folk have no right to complain, for they and other East-Anglians are the worst corrupters of names that ever bewildered me. I have found out and am well housed at Hunstanton, but I had to inquire for it as Hunston. No countryman knew Eye, but Ay was about a mile off; and Botsdale was unknown, but they knew Busdel. The cottagers in some of the outlying villages still call Gooseberries "Thebes," and yeast "God's-good;" but they have one form of expression which deserves general adoption: in speaking of a recent occurrence they say, "It was near now."

As aforesaid here I am at Hunstanton, which, being interpreted, means Hanna's Dwelling, and though the Normans won his and the broad acres of many other Anglo-Saxons, they did not extirpate their place-names; all are still of Anglo-Saxon origin, even the ruined chapel on the headland here is "St. Edmund's." Camden says that both it and the village were built by Edmund, last titular King of East-Anglia. He was A.D. 903 killed by the Danes, and buried at "Breada-worth," known now as St. Edmund's Bury. As he had been a great benefactor of monastic establishments he was canonised, and St. Edmund's day is November 20th.

The district, I think, would repay the attention which might be bestowed upon it by archaeologists; more than one tunnel would probably repay them for opening. They must not wait for an invitation, inasmuch as such researches do not seem to be appreciated. The ruins of St. Edmund's chapel and of Ringstead St. Peter's church I found, the one in the middle of a Barley field, and the other in a field of Clover, without the possibility of reaching the ruins without trampling through the crops. Those crops, and of Wheat, are excellent—above an average—and the last-named is safely in bloom during continued fine weather.

In the cottage gardens—and these, happily, are general and well cultivated—the Potatoes are vigorous, and the early varieties yielding abundantly. Of the flowers around the cottages I will only mention that the Roses, even the standards, are marvellously vigorous, and free from both mildew and green fly. Their flowers and those of Valerian, which is much patronised, are intensely crimson. The sea air and the sea manures accomplish these results. I speak of the manure in the plural, because not only is seaweed largely used as a fertiliser but fish also. I saw a twenty-acre field of Mangold Wurtzel that had been manured just previously to the last ploughing with mussels. Apples are a total failure, the frosts in early June cut off the blossoms. Pears and Plums are abundant. Cherries I cannot speak of, for I never saw a district where there are fewer Cherry trees. Strawberries and small bush fruits are above an average crop.

In Hunstanton churchyard is a square plot with a low rail, and borders of flowers around it. In the centre of the plot are two tombs of the Le Stranges. I have more than once advo-

cated the floral decoration of churchyards, but this plot, without intending a pun, looks strange. It seems to say that those who rest in that plot are still superior to those who are buried outside it, for the rest of the churchyard is a wilderness of long grass. Although I shrink from punning the family referred to did not, for over one of them, who died in 1654, is inscribed—

"In heaven at home, O blessed change!
Who while I was on earth was Strange."

That worthy, jovial in death, lived more than threescore years and ten, being one of the many evidences of the salubrity of the district. In churches and churchyards are inscriptions recording that those they commemorate had lived more than eighty years; and they were not unvigorous years, for one epitaph in Holme-on-the-Sea church tells that one Stone and his wife each lived to be eighty-seven, and to see seventy-two of their descendants. That the district is healthful is proved by better testimony than that of these epitaphs, for official returns show that the death-rate is the lowest in England, being only 13.9 per 1000 annually. The healthfulness is explained by its thorough drainage by the chalk subsoil, the bracing coolness and dryness of the air, and the purity of its water. The same promoters of health prevail at Sandringham, and they aided in warding off death from the Prince of Wales in 1871—G.

BURNING CLAY.

WE reprint the following from a back volume in answer to "A SUBSCRIBER" and another querist, merely adding that it was the practice adopted by Mr. D. Thomson, when at Archerfield:—

As soon as a quarter in the garden became vacant, a fire or two was started, according to the size of the quarter. When only one fire was required, it was, of course, started in the middle of the quarter. The site for the fire was first trenched to the depth of 2 feet 9 inches, turning the top spit (which had through a long course of years been improved a little by liming, the addition of ashes, road-scrappings, &c.), into the bottom of the trench, taking out the two bottom spits for burning. So thoroughly clayey was the greater part of the soil moved, that the men had to dip their tools in a pail of water at every lift, to make the next spadeful slip off the metal. On this site the fire was commenced. Wood which was only fit for charring or firewood, and which is generally plentiful enough about most gentlemen's places, was used. In that locality coal was costly, and not so effective in this case as wood; the latter also affording in burning a desirable quantity of potash. The site for the fire being ready, a little stack of wood was formed 5 feet in diameter at the base, tapering cone-like to the height of 5 feet, beginning with a few dried faggots in the middle, and finishing with stronger junks of wood round the outside. All round this stack of wood a coating of the clay was laid to the depth of about a foot. It was found best to pack it on in lumps as it was turned out of the trench. When this was done the wood was set fire to at the centre, and long ere the wood was all consumed the clay caught fire and burned freely. As soon as the first layer was nearly burned through another layer was added all round, which in its turn soon burned through also. The fire was then broken down with a strong iron-handled hoe, for the double purpose of adding more wood to quicken the fire, and enlarging the basis of operations. After the fire was thus set agoing the wood was of necessity laid horizontally over the burning heap, putting the strongest pieces of wood next the burning mass, and finishing-off the layer with the smallest, to prevent the clay from lying too closely to the wood and obstructing the draught necessary to combustion.

In the meantime trenches were opened at the extremities of the quarter, and the clay taken out, as already described in making the site for the fire, and forwarded to the fire, there being the solid undisturbed surface to wheel it over, and the distance lessened as the fire became larger and required more feeding.

But to return to the fire. When it was again found necessary to break it down for the purpose of extending the base, and increasing its capacity for consuming the clay, another layer of wood was added, and then a layer of clay over the surface, and all round the outside of the heap. After this, as the layer of clay was burned through, another was packed on all over and round without any wood, and so on with two or three layers, till it became necessary to enlarge the base of the fire, by drawing it down from the top, then more wood was

added; and from the great power which the fire attains it is necessary to have plenty of clay and men at hand to cover over the wood quickly, or it would be consumed without doing much good; and so this process was continued till the necessary quantity was burned. I have frequently had three great fires going at a time, on to the tops of which I have wheeled layers of clay to the thickness of 3 feet and more at a time. When the fire became powerful it formed a solid pile of fire, which very soon worked its way through thick and successive layers of clay, transforming what was once an insoluble, wet, tenacious paste, into a heap of material greatly altered in its mechanical properties, and with a great capacity for the absorption of ammonia, besides being mixed with charred wood and potash.

As soon as the heap was sufficiently cool to be moved, it was wheeled back over the surface of the quarter and regularly spread, and the large lumps broken-up. On the surface of all was wheeled a garden rubbish heap, rotten leaves, road scrapings, dung, and other decayed vegetable matter that could be obtained. A trench was then opened at the end of the quarter, and the whole was turned over and mixed the same as is done with a compost heap, to the depth of the original clay, which was forked-up as well as it would allow at the bottom of each trench. This formed a staple, on which almost any crop that could be put on it in the way of vegetables grew with such a luxuriance as I have never seen equalled either before or since. I have seen Brussels Sprouts over 4 feet in height, studded with hard sprouts more like a rope of Onions than anything else. Peas, Canliflowers, &c., were amazingly fine crops. One quarter which I burned in 1854 had the finest crop of Carrots that could be desired, and to have attempted such a crop on it previous to its being passed through the fiery ordeal would have been in vain.

ORCHIDS IN BLOOM

AT THE VICTORIA NURSERY, UPPER HOLLOWAY—JUNE 27th.

<i>Acridos crispum</i>	<i>Masdevallia coriacea</i>
<i>Lindleyanum odoratum</i>	<i>Harryana ochracea</i>
<i>purpurascens majus</i>	<i>Cypripedium Hookeri</i>
<i>virens Ellisii</i>	<i>barbatum bierum grandiflorum</i>
<i>affine superbum</i>	<i>superbiens</i>
<i>Larperetii</i>	<i>Parishii</i>
<i>Lobbii</i>	<i>Stonei</i>
<i>Schroderi</i>	<i>Roezii</i>
<i>Dendrobium Devonianum</i>	<i>spectabilis</i>
<i>infundibulum chrysanthum</i>	<i>Cyrtorchilus stellatum</i>
<i>transparens</i>	<i>Vanda tricolor</i> (many varieties)
<i>McCarthyi</i>	<i>insignis</i> (many varieties)
<i>Pierardi latifolia</i>	<i>snayis</i>
<i>Angoloea Clowesii</i>	<i>linbata</i> (new species)
<i>Ruckeri</i>	<i>Saccolabium retusum</i>
<i>eburnea</i>	<i>Bumel</i>
<i>Dend. cinilum filiforme</i>	<i>Phalaenopsis grandiflora</i>
<i>Tichoplia crispa</i>	<i>Cattleya Mossie</i> (many varieties, and in great quantities)
<i>Oncidium flexuosum</i>	<i>Mendeli</i>
<i>uccellatum</i>	<i>Warneri</i>
<i>bifidum majus</i>	<i>Lelia purpurata</i>
<i>Batemanii</i>	<i>Epidendrum vitellinum majus</i>
<i>Barleria spectabilis</i>	<i>cinabarinum</i>
<i>Odontoglossum Pescatorei</i>	<i>Maxillaria venusta</i>
<i>Alexandree rubescens</i>	<i>Lycaste Skinnerii</i>
<i>Uro-Skinneri</i>	<i>Duppei</i>
<i>Masdevallia Lindenii</i>	<i>Mesospidium sanguineum</i>
—EXPERTO CREDE.	<i>Disa grandiflora</i>

ODONTOGLOSSUM VEXILLARIUM.

I HAVE seen this beautiful *Odontoglossum* exhibited on two or three occasions, but all previous examples come far short of the extreme beauty of two handsome small specimens at present in flower in the hothouses of S. Rucker, Esq., of Wandsworth, under the care of Mr. Pilcher. There are two varieties, the one lighter in colour and more delicate in its markings than the other. The lighter-coloured of the two has produced four spikes from one bulb, and fifteen flowers. The other variety has thirteen flowers on four spikes. Mr. Pilcher grows this species in his cool house, and treats it in the same way as *O. crispum* (Alexandree). Although Mr. Pilcher is not the first to flower *O. vexillarium*, I fancy nothing has yet been seen in England to approach his plants in beauty.—J. DOUGLAS.

ARAUCARIA IMBRICATA FRUITING.—Mr. Barham, gardener to Lord Ormathwaite at Warfield Park, Bracknell, informs us that

there is a tree of *Araucaria imbricata* 16 to 17 feet high at that place showing fruit. There are other instances which have come under our knowledge, as at Bieton and Stratfieldsaye. At the latter place the tree has fruited for two or three years, producing ripe seed, from which Mr. Bell has raised a large quantity of seedlings.

ROYAL HORTICULTURAL SOCIETY.

JULY 1ST.

It is now some years since the National and Royal Horticultural Society's Rose Shows were blended together, and for some years, too, it has not been our lot to see so small a display at this annual meeting, so much looked forward to by rosarians. The season has been most untoward, and every allowance must be made on that account; and even now we hardly know what allowances should be made, so varying has been the weather within the last few days—thunder showers in many places, not a drop of rain in others. The Show, held on this occasion in the western conservatory corridor, was small compared to those of former years, and the blooms were far from equal, either in number or quality, to those usually exhibited at this meeting.

In Class 1, for seventy-two single trusses (nurserymen), Mr. G. Prince, Market Place, Oxford, was placed first with stands containing good examples of Maurice Bernardin, Baroness Rothschild, Exposition de Brie, L'Abbé Brammerel, Madame Hippolyte Jamain, Paul Neron, Alfred Colomb, Edouard Morren, Marquise de Castellane, Madame Laurent, and Marie Van Houtte. Second, and very closely, came Mr. C. Turner, of Slough, with fine trusses of La France, Napoleon III., Rubens, Général Jacqueminot, Jules Margottin, Maurice Bernardin, Duke of Edinburgh, Céline Forestier, Ferdinand de Lesseps, Dr. André, and Prince Camille de Rohan. The third prize went to Messrs. Paul, of Cheshunt, the fourth to Messrs. Mitchell, of Piltown.

In the class for forty-eight triples, which in point of display is always highly effective, Mr. Turner was first with Maréchal Niel, Paul Verdier, Souvenir de Malmaison, Duke of Edinburgh, Prince Camille de Rohan, Camille Bernardin, Victor Verdier, Général Jacqueminot, Louis Van Houtte, and Baroness Rothschild. Messrs. Paul & Son were a good second.

In the next class, for twenty-four triples, Mr. Cranston was first with La France, Victor Verdier, Marie Baumann, Marquise de Castellane, Prince Camille de Rohan, &c. Second came Mr. Fraser, Leyton, and third Mr. Prince.

In twenty-four single trusses Mr. Cranston was first with Edouard Morren, La France, Paul Verdier, Maréchal Niel, Gloire de Dijon, Victor Verdier, Maréchal Vaillant, &c. Mr. C. Turner was a good second; and Mr. G. Cooling, Bath, was third.

In the amateurs' class for forty-eight single trusses, Rev. G. Arkwright, Pencombe Rectory, Hereford, stood first with a very fine stand, in which we especially noticed La France, Sémateur Vaisse, Duchesse de Caylus, Ferdinand de Lesseps, Baroness Rothschild, Maurice Bernardin, Pierre Notting, Leopold I. and several more very fine. Rev. J. M. B. Camm, Moulton Wyld, Chalmouth, was second with excellent trusses; third Mr. Farren, Crescent, Cambridge; and fourth Mr. Ingle, gardener to Mrs. Round, Colchester.

In the remaining amateurs' classes there was also a generally good competition, Mr. Farren, Cambridge, taking the lead for twenty-four single trusses, Mr. T. Gould the second place, and Mr. Ingle the third. For twelve, Mr. J. Mayo, of Oxford, was a very good first; Mr. D. Chapman, of the same city, an excellent second; and Mr. T. H. Gould third; Capt. Christy, of Westeham, being fourth.

For twelve single trusses of Roses of 1871, 1872, or 1873, Mr. Cranston, of Hereford, took the first place with a collection, of which the best were Reynolds Hole, Madame Thérèse Parriou, Lyonais, Bessie Johnson, Annie Laxton, Cheshunt Hybrid, and Etienne Levet. Second came Mr. Turner, of Slough, with Bessie Johnson, Baron de Bonstetten, Mrs. Baker, Miss Hassard, promising, and John Stuart Mill; third, Messrs. Paul & Son. For six trusses of any new Rose of the same years, Mr. Turner was first with Etienne Levet, very fine. Messrs. Paul second with Annie Laxton; and Mr. Prince third with Elie Morel.

In Tea-scented and Noisette Roses, Messrs. Paul & Son took the lead, Mr. Prince being second. In the amateurs' class the Rev. G. Arkwright, Mr. Ingle, and Mr. Farren carried off all the prizes. Gloire de Dijon, Cheshunt Hybrid, Madame Willemoz, Rubens, Souvenir d'Elise, and Triomphe de Rennes were well represented.

For twelve single blooms of different varieties the first prize was deservedly awarded to Mr. Turner, of Slough, who had remarkably good examples of Etienne Levet, La France, Ferdinand de Lesseps, Louis Van Houtte, Baroness Rothschild, and Duke of Edinburgh.

For twelve trusses of Alfred Colomb, the principal awards went to Rev. J. B. M. Camm, and Mr. Chard, gardener to Sir F. Bathurst, Bart.; for twelve of Duke of Edinburgh, to the richly-coloured blooms of Messrs. Paul & Son, and those scarcely

inferior of Mr. Turner, the latter taking first for Baroness Rothschild, and Mr. Camm second. For La France, Rev. G. Arkwright was first, and the Rev. J. B. M. Camm second, whilst of Marie Baumann the only twelve considered worthy of an award was that of Mr. Prince, of Oxford.

No vases of cut Roses were exhibited, though usually there is an abundance of these; but from Messrs. Paul & Son and Mr. Turner came excellent groups of Roses in pots. A large and very ornamental group of plants was furnished by Mr. Williams, of Holloway, a smaller one by Mr. Aldous, of South Kensington, whilst Mr. Turner contributed stands of Pinka and Verbenas of the highest merit.

In competition for the prizes offered by James Carter & Co. for Peas, there were about a dozen exhibitors. For six dishes Mr. Pragnell, gardener to G. W. Digby, Esq., was first with capital examples of Hundredfold, G. F. Wilson, Champion of England, Superlative, Wonderful, and James's Prolific Marrow. Mr. Elbot, gardener to J. Hibbert, Esq., Maidenhead, was second with similar kinds, although there were several exhibitors of creditable dishes, such as those of Mr. Chaff, gardener to C. H. Goschen, Esq., Croydon; Mr. Cross, of Sidmouth; Mr. Brown, Henley-on-Thames; and Mr. Chard, gardener to Sir F. Bathurst, Salisbury. These latter looked to be a fine lot, but were much too old. In the class for four varieties Mr. Bailey, gardener to T. T. Drake, Esq., of Amersham, was first with Laxton's Filbasket, Superlative, William J., and Laxton's No. 1. The second best came from Mr. Miles, gardener to Lord Carington, Wycombe Abbey; his sorts were exactly the same as the preceding. In this class there was a third prize awarded to Mr. Gilbert, gardener to the Marquis of Exeter, Burghley. Mr. Burnett, gardener to Mrs. Hope, The Deepdene, Dorking; Mr. Moorman, Kingston-on-Thames; Messrs. Dobson & Son, Isleworth; and Mr. J. Smith, of Romford, also showed good dishes.

In the miscellaneous class there were two magnificent Smooth Cayenne Pines, shown by Mr. J. Tonkin, gardener to T. Keke-wich, Esq., to which a bronze medal was awarded.

FRUIT COMMITTEE.—Alfred Smea, Esq., F.R.S., in the chair. Mr. Dean, of Bedford, sent samples of the old White Dutch Cabbage Lettuce under the name of Leyden White Dutch. He also showed a Pea called Robert Fenn, which was referred to be grown in the garden; and Dean's Dwarf Marrow, which was passed. Mr. J. Cotton, Kingate Lodge, Kilburn, sent a Cucumber called Queen Park Gem, which was passed. Mr. Richards, gardener to Baron Rothschild, Gunnersbury, sent a Queen Pine weighing 5 lbs. 6 ozs.; and Mr. Perkins, gardener to Charles Keyser, Esq., Stanmore Priory, sent a Ripley Queen, weighing 5 lbs. 13 ozs., produced from a rooted sucker planted in August, 1873. The latter was a very handsome fruit, and received a cultural commendation. Mr. Bennet, gardener to the Marquis of Salisbury, Hatfield, sent fruit of Read's Scarlet-flesh Melon, which was gone to decay and of bad flavour. Mr. J. Read, The Gardens, Aisle Hall, Northwich, sent two fruit of Read's Perfection Melon. It is a Scarlet-fleshed variety, too much like Scarlet Gem in the condition in which it was exhibited to be considered distinct. Mr. Cooling, nurseryman, Bath, sent a handsome large Strawberry called Lord Lyons, which was so deficient in flavour as to be passed, with a request that it may be tried at Chiswick. Thomas Laxton, Esq., of Stamford, sent a seedling Strawberry of remarkable firmness of flesh, and good flavour. It was recommended to be grown at Chiswick.

Mr. Woodbridge, gardener to the Duke of Northumberland at Syon, sent thirteen dishes of distinct varieties of Cherries, which were so highly appreciated as to receive the unanimous thanks of the Committee, with a recommendation to the Council to award the collection a bronze medal. Mr. McLaren, of Ash, Surrey, sent a plant of McLaren's Prolific Raspberry, which received a certificate a few years ago. It is a prolific variety about 3 feet high, and producing an abundance of fine large fruit.

FLORAL COMMITTEE.—Dr. Denny in the chair. From Mr. Bester, manager to the Pine Apple Nursery Company, came *Lobelia pumila magnifica*, fine deep blue with a small white eye; this received a first-class certificate. A similar award was made to Mr. Croucher, gardener to J. Peacock, Esq., Hammersmith, for *Escheveria Peacockii*, a very ornamental kind, resembling *E. secunda* in shape, but whiter. Harrison Weir, Esq., Weirleigh, Brenchley, sent yellow Foxgloves; and Messrs. E. G. Henderson groups of Begonias, Delphiniums, Lobelias, and zonal Pelargoniums, of which last Dr. Masters, a splendidly coloured Tricolor, received a first certificate, as did Iris *Kempferii* Edward George Henderson, with large, richly-coloured, velvety purple flowers feathered with gold. Sir Garnet Wolseley Rose from Mr. J. Cranston, of Hereford, a fine deep crimson, seedling from Prince Camille de Rohan, likewise had a first-class certificate. Mr. R. Dean sent a good collection of Antirrhinums, also a double variety of the pink *Silene pendula*, which had a first-class certificate.

From G. F. Wilson, Esq., Weybridge, came beautiful pans of the interesting and ornamental little *Nertera depressa*, as well as correctly-named cut specimens of *Lilium Washingtonianum*, *Humboldtii*, *puberulum*, *philadelphicum*, *californicum*, *longiflorum*, and varieties of *canadense*, &c. Mr. R. Barr, jun., also sent a large collection of cut flowers of Lilies. From Messrs. Backhouse, of York, came *Oncidium stelligerum*, of Reichenbach, with graceful wreaths of flowers. This was awarded a certificate.

STRATFORD HORTICULTURAL SHOW.

A GRAND horticultural Exhibition is held in West Ham Park, in connection with the Essex Agricultural Society's Exhibition. It opened on June 30th, and closes to-day. We have attended many of these annual gatherings, but none of them with which we have been acquainted on previous occasions has been at all equal to that held this year. A series of large tents is devoted to the different horticultural productions. A very large circular tent in the centre of the grounds contains the flowering and fine-foliaged plants. In the former, for twelve specimens, Mr. J. Ward is first, a long way ahead of the other competitors; he has *Erica Parmentieriana rosea*, *Statice profusa*, *Bougainvillea glabra*, and a gorgeous *Anthurium Scherzerianum*. Mr. J. Wheeler, gardener to J. Phillpott, Esq., Stamford Hill, is second with nice plants. *Erica Cavendishii* is well flowered. Mr. D. Donald, gardener to J. G. Barclay, Esq., Leyton, is third. For six Mr. Ward is again first, Mr. Wheeler second, and Mr. Donald third.

The fine-foliaged plants in the amateurs' classes are not quite so good as we have seen them in London this year; the specimens are smaller, though in other respects they are well grown and very effectively disposed. Mr. Donald has the first prize, Mr. Ward the second, and Mr. Douglas, gardener to F. Whitbourn, Esq., Loxford Hall, Ilford, the third. Before leaving this tent a word of praise must be accorded to the magnificent group of ornamental-foliaged and flowering plants sent by Mr. B. S. Williams, of Upper Holloway, London. In the centre is a splendid *Cycas revoluta* and *Gleichenia spelonca*. These are flanked by magnificent tree Ferns, *Croton*, and the graceful *Cocos Weddelliana*. Mr. Williams also takes the first prize for twelve stove and greenhouse plants in flower. *Ericas* come from Mr. J. Ward; he has twelve matchless plants, and takes two first prizes for them.

Orchids are also sent by Mr. Ward, such as he usually exhibits, *Epidendrum vitellinum majus*, *Dendrobium Bensoniae*.

Exceedingly good groups of stove and greenhouse Ferns are exhibited in quantity from Mr. Donald, first; Mr. Simmonds, gardener to Alderman Finnis, Waustead, second; Mr. Douglas third. Mr. Lane, gardener to Major-General Pytche, Romford; Mr. Wheeler, and others.

Fuchsias were not nearly so good as we have seen them at country shows. Mr. G. Wheeler, gardener to Sir F. H. Goldsmid, Regent's Park; and Mr. D. Donald are exhibitors. Mr. J. Ward sent six very good Show Pelargoniums, and Mr. D. Donald six Fancies. Mr. G. Wheeler, Mr. Simmonds, and Mr. Donald have *Colens*. Some of these are pretty, others are coarse in appearance and far from effective. *Liliums* come from Mr. Douglas and Mr. C. Parker, Clay Hall Works, Old Ford. The first-named has five pots of *L. auratum*, and a fine pot of *L. Humboldtii*.

As we expected, cut Roses are very fine. Mr. W. Ingle, gardener to Mrs. Round, Colchester, is first with a fine stand of fresh blooms in twenty-fours. Mr. W. Harrington, Corbetskey, Romford, is second. Mr. Ingle is also first for twelve. There is a good competition in twelve trebles. Here Mr. Ingle had to give way to Mr. J. C. Quennell, Brentwood, who was first.

Mr. W. Paul, of Waltham Cross, sends a very fine group of variegated Zonal Pelargoniums, and cut blooms of the plain-leaved sorts.

Table decorations are in a tent by themselves, and are disposed on a double row of tables, plenty of space being allotted for each exhibitor. For three vases, Mr. Burley, nurseryman, Brentwood, and Mr. Soder arranged their vases much in the same way, and very well finished they are. Mr. Soder's is rather heavy, although Mr. Burley, who obtained the first prize, would have improved his if less materials had been used. The third-prize three are much too heavy. The prize went to Miss Hill, Bow Road. *Briza gracilis* and some of the finer Grasses, *Adiantum cuneatum*, *Rhodanthe*, pink *Geranium*, and Water Lilies form the make-up of the prize vases. Mr. Soder is first with a single vase, Mr. Burley second, and Miss Hill third. What are termed the March vases are used in all the prize stands.

In fruit the Pines are very poor; but Grapes are very fine indeed, especially Black Hamburg. Mr. Douglas is first with very fine bunches, large in berry, and beautifully coloured; Mr. W. Bones, gardener to D. McIntosh, Esq., Romford, is second; and Mr. Lane third. Excellent Buckland Sweetwater was sent by Mr. Douglas; Muscats by Mr. Bones. The best Peaches

come from Mr. J. Stevenson, gardener to F. C. Barker, Esq., Leigh Hill, Essex; who also sends the best Nectarines.

Mr. Chambers, gardener to H. Fowler, Esq., of Woodford, has the best black Cherries; and Mr. Douglas the best red. Currants of sorts, and Gooseberries are also exhibited in quantity. The best Green-fleshed Melon was sent by G. E. Wythes, Esq., Capt Hall, Epping, the variety being Trentham Hybrid; Mr. Lane is second with Ickfield Hybrid.

Vegetables are an important and special feature; some excellent collections are shown, neatly set up in baskets, and disposed round the sides of the fruit tent. The best collections of ten sorts is sent by Mr. Wythes, Mr. Douglas, and Mr. Bones. They contain excellent Hathaway's Excelsior Tomatoes; G. F. Wilson and Hundredfold Peas. Dwarf Kidney Beans are also very fine. An excellent brace of Tender and True Cucumber shown by Mr. Douglas took the first prize.

FLOWER GARDENS IN WINTER AND SPRING.

No. 1.

THE principal defect of the bedding-out system is the short time that the masses of colour continue in full beauty, cold ungenial springs and early autumnal frosts curtailing the display so much, that we cannot calculate with any degree of certainty upon its duration for more than four months. In most large places this is immaterial, owing to the absence of the family in spring and early summer; but where this is not the case it becomes extremely desirable to render the flower beds as ornamental as may be throughout the year, and to this end, when the summer plants succumb to the adverse influences of autumn, they should immediately be replaced with some hardy ornamental plants, of which we have now so rich a collection.

The summer occupants of the flower garden being now fairly established in the beds, the present time appears to me to be very suitable for the consideration of future measures, in order that a clear decision as to our actual requirements may be arrived at before the rapidly approaching season for the propagation of spring-flowering plants is upon us, as well as for showing with what ease, simplicity, and economy spring and winter gardening may be executed. We do not now hear so much about the use of broken brick, spar, coal ashes, and chalk in the formation of fanciful designs upon the surfaces of the beds in winter; and I am glad of it, for with such a profusion of hardy shrubs and plants ready to our hands, one can hardly understand how the blindest followers of "fashion" could be induced to turn from the use of living forms to that of "dead" materials. It is only in large flower gardens that spring and winter gardening can attain its fullest development, the very term implying a combination of shrubs and hardy flowers, such as necessarily requires considerable space to do full justice to it. Fine and desirable as such extensive displays undoubtedly are, the very numerous modifications of them which may be adapted to the requirements of smaller gardens, are equally beautiful in their way, and it is to one or two of such, as being more generally useful, that I desire first of all to call attention.

In all gardens of moderate extent it invariably answers best to confine the arrangements to the simple combination of a few choice spring flowers that are tolerably similar in habit of growth and in the duration of their flowers, which may readily be raised and prepared for the beds in large quantities. Pre-eminent among pink flowers in this class is the lovely Italian Soapwort (*Saponaria calabrica*), perfectly hardy, of a dwarf, dense, yet spreading growth, producing its flowers in rich profusion. Beds of it may be compared to a soft fleecy cloud rather than a mass of pink, for there is nothing heavy in its appearance, the pretty flowers being so gracefully disposed upon the slender branchlets that they look like so many pink gems sprinkled over a delicate network of green. To these valuable properties may be added the length of time which it continues in flower; commencing in March with the bright Catchfly of Sicily (*Silene pendula*), it continues in full beauty late in June, long after the *Silene* is "faded and gone." The seed should be sown the first or second week of August, transplanting into a rich open soil a few inches apart as soon as the plants are large enough, giving careful attention to all the necessary weeding, watering, and stirring of the soil, so as to have the plants in a thoroughly sturdy and vigorous condition by the time they are required for the beds. If this is not well done, and they become crowded in the nursery, a weakly attenuated growth ensues, so that when the plants are removed to the beds, instead of being so neat and compact as to be even then ornamental in a certain degree, they present a

ragged and forlorn appearance, many of them sooner or later perishing, and thus the negligence which was apparently of so trifling a character in the first instance does eventually seriously affect the appearance of an entire design.

Thus much, and certainly not more than it deserves, of the high rank of the *Saponaria* amongst the notable flowers of spring; but I cannot turn from it without a parting word concerning its value as a decorative plant in summer and autumn, a couple of sowings in March and April affording a supply of plants that, with ordinary care, will form beds of as attractive and ornamental an appearance as any which are filled with the

choicest *Geraniums*. It is also well adapted for planting in vases, its trailing growth drooping over and concealing parts of the sides in a most picturesque manner.

Silene pendula is an old and general favourite, ranking next in importance to the *Saponaria*. It, too, has a nice spreading habit of growth, reaching barely a foot in height, and if planted in a poor soil it may be kept as low as 3 or 4 inches from the surface. It is altogether of a bolder type than *Saponaria*, beds of it forming striking masses of deep pink. The seed should be sown about the last week in July. There are white varieties both of *Saponaria* and *Silene* that are equally

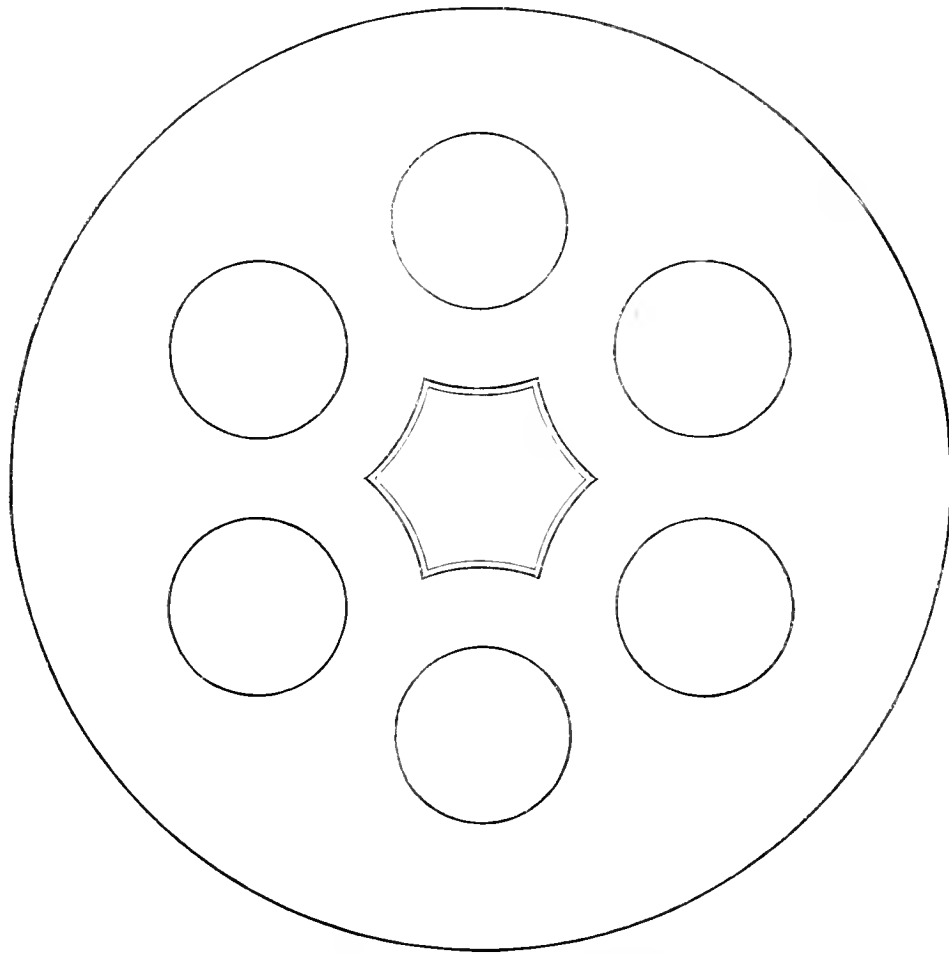


Fig. 1.—DESIGN FOR A SMALL SPRING GARDEN ON TURF.

1. *Saponaria calabrica*, pink.
2. *Myosotis sylvatica* alba, white.
3. *Nemophila insignis grandiflora*, blue.
4. *Limnanthes Douglasii*, pale yellow.
5. *Saponaria calabrica*, pink.

6. *Saponaria calabrica* alba, white.
7. *Myosotis sylvatica*, blue.

The central bed may be *Silene pendula*, pink, with an edging of *Nemophila insignis*, blue.

valuable and effective, and which, with *Myosotis sylvatica* alba, form a capital trio, each of which possesses such distinctive features as to render all three indispensable in all colour-combinations of any extent.

Of plants having blue flowers we may take one of the loveliest of Californian annuals, *Nemophila insignis grandiflora*, too well known to need description, sowing the seed the last week of August, and the graceful *Myosotis sylvatica*, which requires to be sown quite two months sooner than the *Nemophila*. The *Nemophila* should have a light, rich, porous soil raised well above the surrounding level, as it suffers very much from excessive moisture. I have had whole beds of it die outright in winter when the soil has been of a close adhesive texture. *Myosotis sylvatica*, which may often be found in its wild state in Scotland and the north of England, ought perhaps to have had the first place, for while the *Nemophila* is occasionally somewhat uncertain, this fine plant is invari-

ably good, forming most attractive masses of blue. The slender yet sturdy growth of the stems, surmounted by the well-proportioned clusters of pretty blue flowers, gives an air of lightness and grace, which has, doubtless, contributed very materially to its present popularity. To these may be added the pretty blue *Collinsia verna grandiflora*, sown early in August; and if yellow is required, *Lasthenia californica*, sown about the end of August, makes a fine bed of rich golden yellow, and it continues in full beauty from April till late in June. It is of a somewhat tall straggling growth, and therefore should be planted thickly. *Limnanthes Douglasii*, of a pale yellow or straw colour, is also a useful plant. Its seed should be sown the first week of September.

With the exception of the different periods of time at which it is necessary to sow the various seeds in order to produce a uniform display of flowers, the whole of this small but very choice selection of spring-flowering annuals are amenable to

one simple cultural process, consisting of the careful watering and transplanting of the young seedlings into rich nursery borders, to be removed from thence into the flower beds in autumn, when the beds are cleared and dressed with manure or rich soil. The ten kinds which I have selected embrace three shades of blue, two of pink, two of yellow, and three white kinds of distinct form and growth. Sufficient seed to afford a large supply of plants may be procured for three or four shillings, so that it is evident the expenditure of either time or labour need not deter anyone from carpeting the beds with green foliage during winter, and rendering them bright with gay flowers throughout the spring and early summer.

My aim in contributing these notes is to induce those who have not hitherto seen or understood much of the real beauty of spring flowers to take up their culture in earnest. For the further assistance of such I append a few hints concerning the arrangement of the plants in the beds. If a ribbon border were required I would proceed thus:—Beginning in front, white, pink, blue, yellow; or blue, white, pink, yellow, keeping the yellow *Lasthenia* at the back because of its tall growth; but if a deep yellow were specially required for a front row, then we must call in our invaluable ally Golden Feather *Pyrethrum*, of which a stock of plants is raised by sowing seed any time in August. Following Golden Feather in front with blue *Nemophila*, pink *Saponaria*, white *Silene*, and with blue *Myosotis* behind, we have a combination that few summer flowers can equal, and which certainly none can surpass.

Small beds, each containing one distinct colour, as shown in the plan (fig. 1), have a pleasing effect, and solitary beds may be filled in a variety of ways. A bed near a house would be very beautiful if planted with pink *Saponaria*, surrounded by a broad band of its white variety, and with an edging of blue *Nemophila*; or, if the bed were large enough, the *Nemophila* might form a band as wide as *Saponaria calabrica alba*, adding an edging of Golden Feather *Pyrethrum*. The same arrangement would be equally effective at a distance by substituting *Silene* of both kinds for the *Saponaria*. Another striking bed might be composed of golden *Lasthenia* for a centre, with concentric rings of *Collinsia verna*, white *Myosotis*, pink *Silene*, and blue *Nemophila*, proceeding outwards from the *Lasthenia* in the order named; and for beds of two colours we may surround *Saponaria calabrica* with various appropriate edgings, such as *S. alba*, *Nemophila insignis*, and Golden Feather *Pyrethrum*.—EDWARD LUCKHURST.

PACKING CUT FLOWERS.

IN answer to "A. S. L. M." it is no doubt true that great quantities of flowers are spoilt through careless packing; at the same time far more are spoilt through neglect after they arrive at their destination. The box will be opened, and perhaps the contents placed in a warm dry room, a few put in water, and the rest left exposed to the dry atmosphere of the room for an hour or two, or until an opportunity occurs for setting them in water. This is no fancy picture. I have often known such to be the case.

I will first give a few hints as to how the flowers should be packed, and afterwards state how they should be treated when they arrive from the country. Tin boxes made with moveable trays are always to be preferred. They should be made of good strong tin, as they are very liable to be knocked about in travelling. They can be made of any size required, but with large boxes there should be divisions, so as not to have great quantities of flowers placed together. The great evil in packing is having too many crowded together without any division of a substantial nature between them. Packing in thin layers with a little cotton wool between such choice flowers as *Gardenias*, *Stephanotis*, &c., is always better than damp moss, which is sometimes used. The moss is heavy, and is liable to do more harm than good owing to its shifting about when travelling. Roses may be packed in a box with the stems in damp moss. If trays with holes in them are used the stems can be put through the holes into the damp moss, so that there can be no danger of its injuring the petals.

A very important matter is the cutting of flowers. They should always be cut in the morning or late in the evening. Morning is better. If gathered in the middle of the day, with a hot sun, they will never last fresh any length of time.

Flowers should be unpacked immediately they arrive, and if possible in a cool damp room or cellar, and at once placed in cold water. Many kinds of Ferns will not last fresh for

more than a few hours after they are cut; and in rooms where gas is used they are almost certain to wither up in one night, unless they are removed to a cool damp cellar, or even to the open air for the night. Plants of Ferns and many other plants growing in pots, and carefully attended to as regards watering, will seldom look fresh for many days if kept in rooms where gas is used—a sufficient proof of its injurious effects on vegetable life. Cut flowers should always be placed as far as possible from the gas-burners, and near a window where they can have fresh air. The water used should be changed often, and a small lamp of charcoal placed in it, which will keep the water pure, and help to prevent the flowers from fading.—J. S.

READ'S SCARLET-FLESHED MELON.

I HAVE found this Melon a shy setter, but with a little care in fertilising the flowers, and keeping the air of the pit or frame drier than usual until the fruit shows signs of swelling off, I have secured an abundant crop. I have at present two dozen fruits under two lights of a pit, and half of them are larger than an Orange and swelling quickly. I will cut off all the small ones in a day or two to an average crop, when I find I am safe. I grow my Melons on manure in a pit which can be heated with hot water as soon as the heat is found to decline. I quite agree that the habit of the plant is ample and good, but I think it will be found to succeed in and require a high temperature.—W. L., *Lisburn, Co. Antrim*.

ROSE CLAUDE LEVET.—Mr. Cant is right in saying that *Pierre Seletzky* is a capital Rose. It is of much the same colour as *Claude Levet*, but it is full to the centre, which *Claude Levet* is not. Its formation, disposition of, and quality of the petals, together with circular outline, are excellent. It will be one of the best of its year. I have pleasure in recommending it. It is, moreover, on the *Manetti* a good grower.—W. F. RADCLIFFE.

THE TIGER FLOWER, ODONTOGLOSSUM GRANDE.

THIS is just the plant for an amateur to commence the cultivation of Orchids with, because its constitution is so robust that it will live under very trying conditions, and, as a rule, plants of any description have to suffer some rough and un-congenial usage during the earlier days of a young beginner's practice; and whilst it undoubtedly is one of the gayest of its class, it is so reasonable in price that a first failure does not entail a sufficiently heavy loss to deter those with even a small income from making a second venture, and those who possess only a *Wardian case* to indulge their fancies may hope with ordinary care to be entirely successful in its culture.

Odontoglossum grande (fig. 2) has now been an inhabitant of our plant houses for some thirty-five years. For its introduction we are indebted to the late Mr. Skinner, who did so much during his visits to South America to familiarise us with the Orchid flora of Guatemala. It is a sturdy bold-growing species, characterised by its dark blue-green pseudobulbs, bearing a pair of ample dark green leaves, which are, when healthy, thick and leathery in texture; the scape is erect, and produced from the base of the pseudobulb, coming away almost simultaneously with the young growth, and the flowers open during early autumn, and last a very long time in full beauty if not sprinkled with water from the syringe. The individual blooms usually measure some 5 or 6 inches across, but extra fine varieties are sometimes to be met with which considerably exceed that size. The sepals and petals are rich orange yellow, having the appearance of being varnished; the basal portions are ornamented with broad transverse bands of rich brown. The lip varies in size considerably in different specimens, and is creamy white in colour, being dotted and streaked rather sparingly with bright purplish brown. Each spike bears usually from three to five or six flowers, and I have had a not-very-large plant produce as many as forty blooms, in which state it is truly a gorgeous spectacle. This, taken in conjunction with the fact that it is sufficiently robust to allow of its being used for the decoration of apartments, or, indeed, in any situation where gay and festive flowers are desiderata, renders it a favourite with all who know it, and should be a sufficient recommendation to all those who have not that pleasure to at once add it to their collections.

I have before observed that *Odontoglossum grande* blooms during autumn, but within the last few years we have had a

variety introduced which is in full beauty about Christmas; so with a plant of each variety an amateur may maintain a succession of these brilliant flowers during the dullest of the winter months.

This species is a great lover of shade and moisture, and when provided with these it will not fail to thrive. For soil use good rough fibrous peat, from which the small gritty particles have been beaten, and mix with it some living sphagnum



Fig. 2.—*ODONTOGLOSSUM GRANDE*.

moss. The pots should be drained well, and, although a less supply of water (as a matter of course) during the dull dark days of an English winter is absolutely necessary, this element, however, must not be entirely withheld, for they will not suffer to be dried off. During summer the temperature should be about 70°, or, indeed, whatever the atmosphere of the house can be kept down to, but no fire heat should be applied; in

winter, however, I have had the plant thriving admirably in a night temperature of 48° to 50°, and these are conditions which no amateur, I am of opinion, would find any difficulty in providing it with.

One word of advice more and I have done, and that is, bear in mind that during the season of growth care must be taken to prevent water resting in the large imbricating sheaths which

envelope the young growth. Neglect of this results in the decay of the shoot, thus not only depriving the possessor of the beauty of its blooms, but, by destroying the leading growth, permanently injuring the plant.—EXPERTO CREDE.

THE CEDAR OF LEBANON.

It was some time during the latter part of the reign of Charles II. that the Cedar of Lebanon was introduced to this country. Many of the early-planted specimens still exist, but many also have disappeared within a few years. It was evidently a great favourite at the time of its introduction, and was much planted in the villa gardens round London, where, in the neighbourhoods of Hammersmith, Chiswick, Sion, Twickenham, Whifton, Richmond, Walthamstow, and similar localities, original specimens are still to be found; but the

encroaching builder has no compunction in removing whatever stands in his way, and many of the finest trees of Cedar of Lebanon which were frequent in the neighbourhood of the metropolis, have in these latter days disappeared. Some there are that still remain. At Chiswick House, for instance, there is still an avenue of these trees, which is, perhaps, unsurpassed anywhere else by the beauty of their forms, feathered as they are to the ground, and sweeping the turf to immense distances. At Stratfieldsaye, where a grove of them had been planted at an early period, the trunks rise sheer-up like columns 80 or 90 feet high, the spreading branches meeting overhead and forming as it were a temple of vegetation. [See vol. xxiv., page 245.]

"There is," says Figuier, "no nobler object than the Cedar. 'The Lebanon,' say the Arabian poets, 'bears winter on his head, spring on his shoulders, and autumn in his bosom,'



Fig. 3.—LARGE CEDAR AT NORMANTON PARK.

while summer sleeps at his feet,' and in confirmation of the truth of the sentiment a few venerable Cedars still remain; they form a beautiful grove on the line of route from Baalbec to the coast. They are large and massy, rearing their heads to an enormous height, and spreading their branches afar; but they have a strangely wild aspect, travellers say, as if wrestling with some invisible person bent on their destruction while life is still strong in them; but they are gradually disappearing. In 1575 there were found twenty-four standing in a circle; in 1630 Fermanil counted twenty-two; there are now seven standing near each other, and a few more almost in a line with them."

The subject of our illustration is a fine specimen of Cedar of Lebanon at Normanton Park, Rutlandshire, growing in the pleasure grounds near to the kitchen garden. About 3 feet from the ground it branches off into a great number of limbs, every one of which would form an ordinary-sized tree. At this height from the ground it is 28 feet in circumference; the spread of branches is about 90 feet in diameter, and the height from 90 to 100 feet. It is supposed to be two hundred years old.

CANDLE PLANT.—*Cacalia articulata* is still in cultivation, a small plant having been kindly sent to me by Mr. Maule, of the Nurseries, Bristol. Could you tell me where *Pachyphy-*

tum roseum is from, and when introduced?—JOHN GRUMMITT, *Sheffield*.

Mr. JAMES FLINT, a well-known collector in this district, has a specimen of *Cacalia articulata*—Candle Plant, and I have no doubt if Mr. Grummitt were to make application a cutting would be forwarded to him. Mr. Flint, who is a most enthusiastic amateur, is always glad to encourage the cultivation of specialties.—W. F., *Airdrie, N.B.*

NOTES ON VILLA AND SUBURBAN GARDENING.

Flower Shows.—When the cultivator of flowers has been successful in raising his favourites, and his parterres begin to develop their beauties, he is conscious of a very natural desire to show his productions to others. The wish that our friends should admire the same objects as we do is an inseparable accompaniment to the amateur gardener, and has sometimes made him a mark for the merriment or ridicule of those who are destitute of his tastes. Often have I seen an inhabitant of the suburbs of London, who is happy in the possession of about two poles of ground at the back of his dwelling, drag an unwilling visitor round and round his flower beds, and din his ears with the praises of his *Cauliflowers* or his *Sweet Williams*. In such cases the grower has links of fancy and of feeling which bind him to those products of his labour and skill of which the spectator is unconscious, and the unwilling manner in which the

latter follows his guide reminds one of a bear in the Zoological Gardens, who walks about indeed and looks around him enough, but would evidently get away if he could from the chain which confines him.

But if the grower has to complain of undiscerning and tasteless mortals who wonder at what they call his useless enthusiasm, he can always find devotees like himself in the nearest horticultural society, and there in the presence of a company, though few, there will be no danger of his beauties wasting their sweetness on the desert air. The tendency will rather be the other way, for the visitors may be so critical and keen in their conceptions of floral excellence, that your productions may be blamed for not having been grown with sufficient care, or prepared for the show with the proper degree of art. But do not be discouraged at this, but join the society at once. Get the principal lists of articles to be competed for as early as you can, and then select those in the growth of which you are most likely to be successful. But I shall presume you have done this, and are now prepared to contest the reward of excellence or superiority with your neighbours. A few hints derived from my own observations and experience in connection with a society of amateurs may not be useless in reference to the general subject of flower shows. In employing Art for the purposes of successful competition, let Art always be the handmaid of Nature, to wait upon and follow her rules, and to confer upon her a higher beauty. This principle should regulate the choice of articles to be exhibited, for some will bend much and others little to the care of the gardener. Those called florists' flowers are always desirable objects, as they are so amazingly affected by skillful growth. But the rule is adverse to the practice of what is called dressing flowers, that being an operation which more often alters than improves the subject of its manipulation. If by art a Carnation may present a form in a show-pan which it never had or could have when grown on its stems in a bed, the triumph may be allowed in a technical point of view, but ought not to be admitted by a rational horticulturist. A Carnation-grower should seek the improvement of the growth of the flower, and not to be satisfied with trussing-up and patching the disordered petals with string and cardboard. The object is to make art so as to bear on vegetable growth, that bad habits may be corrected, and symmetry and beauty more uniformly obtained. A visitor at a floral exhibition not initiated in the mysteries of flower-craft, who would see a stand of Carnations, and purchase of the exhibitor on the faith of their being so compact and regular, would have a right to complain if he found the following year that these qualities were conferred by dressing. Skill in growing is in my opinion the object to be aimed at in horticultural societies, and artificial trimming should be discouraged. It is on the same principle that the system of sticking and propping-up is objectionable, and is disused at the higher shows. Some *Pelargoniums* present an immense front of flowers, while the back is a miserable scaffolding of sticks; others throw off all their branches from one stem, and dispose foliage and bloom equally round their pots. The first may be more attractive, merely as presenting a mass of bloom, but there can be no doubt that the latter deserve the prize, as developing most the subserviency of Art to Nature.

A real love of science should be always made to repress a mere spirit of gambling at flower shows. No one can have been long acquainted with the operations of such societies without having seen a dangerous tendency in some minds to look for prizes for their own sake. Persons have been known to withhold their patronage from these institutions because sufficient prominence has not been given to some productions which they happen to fancy, or perhaps have in abundance in their garden. The veriest rubbish has in this manner found its way to the exhibition; and when the folly of such a system has compelled its continuance, the guinea has been withheld and the patronage withdrawn. Unequivocal marks of disappointment and vexation may also be seen sometimes displayed by some unsuccessful candidate, although the superiority of the winning article is unquestionable. All such feelings and tempers will be best conquered by loving floriculture for its own sake. Those who do this will feel compensated for the loss of a prize by the superior method of growth which they now have exhibited for their imitation, and they will go and count their deficiencies by the higher examples brought under their notice.

The greatest triumph which gardeners have achieved in the management of plants is that by which almost innumerable and very beautiful varieties of flowers have been raised from the weeds of our fields, as in the Heartsease and Tulip, and to what in exotics are comparatively little better, the single *Dahlia*, the *Dianthus*, *Pelargonium*, and several other genera. This is effected by what is technically designated hybridising and cross-breeding, by which process the proportions of dissimilar but allied species, and in some cases genera, are so intermixed that the seedling produce will partake of the character of both parents, and the flowers be frequently superior to those of either.

Nature unaided by Art has accomplished much, and has produced the Golden Pippin Apple from the wild Crab, and the

Damson and other Plums from the common Sloe, yet it must be confessed that Art properly directed has effected and will effect more in a few years than Nature, dependant upon accidental circumstances, would do in a long lifetime. As an operation to fill up the leisure hours of the lady gardener and amateur I do not know anything more pleasing, for there is something akin to creative power in it, as we are bringing new forms into existence, and though all the offspring may not be equally interesting, some may be very pretty, and others superlatively beautiful. "No one but a parent can have a parent's feeling" is a trite saying, and certainly the pleasure of an enthusiastic florist in viewing a first-rate flower of his own raising, amounts in some cases to a species of idolatry. To explain the method of artificial fertilisation it will be necessary to make a few remarks on the formation of flowers. In all flowers when divested of the petals or corolla there will be found standing in the centre and attached to the flower-stalk, of a *Fuchsia* for illustration, a small pin-like substance which is called the pistil or female organ, and surrounding it a number of shorter pins of various lengths with rather large heads, which are called stamens or male organs. A slight examination of various flowers will show how beautifully Nature has provided for the multiplication of the different species of plants, as in some cases the farina falls from the anther upon the stigma, while in others it is deposited there by an elastic force in the filament, as is exemplified in the *Kalmia*. The pistil consists of three parts—viz., the ovary, the style, and the stigma, and has been likened to a column, as the first will represent the pedestal, the second the shaft, the third the capital. The stamen also consists of three parts, which are called the filament, anther, and pollen or farina—a sort of mealy powder which the anther throws out, which, when it falls upon the stigma or top of the pistillum, fructifies it, and a production of seed is the consequence.

Now, when gardeners wish to produce hybrid or cross-bred plants they divest the flowers which it is intended to produce seed from of their stamens, and proceed to fertilise the stigma with the farina taken from some other plant; and thus, if I wished for a family of plants between *Fuchsia globosa* and *F. Venus* *Victrix*, I should take the stamens from the flowers of the latter directly the flowers were open, and fertilise the stigma with farina taken from *F. globosa*, and the result would probably be plants resembling *F. globosa* in habit, and partaking of the colour of *Venus* *Victrix* in the flower. The habit of the plant generally resembles the male parent, and the flowers those of the female, and for this reason particular attention should be paid to the choice of parents if we wish to make decided improvements in the habits of our plants. After the stigma is fertilised it should be guarded from the contact of honey-sucking insects by a muslin bag placed over the flower, or by keeping the plants in a pit or frame covered with strong gauze or fine canvas. The best instrument to convey farina from one plant to another is a camel-hair pencil, and the best time to apply it is early in the morning when the flower is full grown and the stigma is covered with its own mucus; but to make assurance doubly sure, it is well to apply the pollen several days successively.—W. KEANE.

DOINGS OF THE LAST AND PRESENT WEEKS.

KITCHEN GARDEN.

WE are truly grateful for the rain we have had; during the last week 0.75 inch fell, making the total for the month 1.98 inch. The want of rain seems to have been felt in many parts of England, and also in Scotland this year. Whenever a dry period occurs in Scotland, the old people make a comparison with the memorable year of drought—1826, when the cereal crops did not grow more than a few inches in height. It has been stated that since then no season so dry as the present has occurred. In our own garden water has been short, but owing to our system of culture, which has been previously detailed, the crops have suffered but little. The rain has also given us an opportunity to plant-out all green crops—Brussels Sprouts, Savoys, Breccoli, &c. The above may be planted in the driest weather if plentiful supplies of water can be given, and the plants will not suffer much.

The earliest crop of Peas has been cleared off the ground, and the sticks used for successional crops. We have generally made a sowing of Peas at this time. Last year nearly all the most approved early sorts were tried, but none of them gave satisfaction. In moderately heavy, or what would be called medium soils, Peas do well late in the autumn, and furnish dishes of Green Peas until the frosts destroy them. We have tried them here many years in succession, but have not been very successful with them. The weeds have also been picked out of the walks. This is best done after rain; they come out more readily when the ground is wet, and moreover they are more conspicuous. Gooseberry or other bushes growing near the Box edging have a tendency during the growing season to hang over and destroy the Box; we went over ours and propped up the branches with forked sticks, and in other cases cut away

the superfluous wood. Scarcely anything looks worse in a garden than imperfect Box edgings, with gaps at irregular intervals the whole length of the path. Unsuitable soil is often blamed for this, when the primary cause is to be found in crops overhanging the edgings during the summer months.

FRUIT AND FORCING HOUSES.

Pinerias.—There are plenty of good suckers on the Queens, and as soon as we have the opportunity we shall have them taken off and potted, using 6 inch pots for the smaller plants, and 7-inch for those of a larger size. We have under the force of circumstances been obliged to use different sorts of soil for Pines, but the best seems to be medium clay, using only the surface turf of an old pasture; added to this are one-sixth part of rotted manure and some crushed bones. This compost is recommended for fruiting plants; a lighter compost may be used for potting the suckers. Orange trees grown at the back of the Pine house are progressing well. A great difficulty with them is to keep the leaves clean; even with frequent syringing an accumulation of a black substance takes place upon the leaves. This is removed with a sponge and soapy water; it proceeds from scale on the wood, which must also be washed off. A surface-dressing of pounded charcoal, bone meal, and guano in equal proportions is very beneficial to them.

Figs in pots have also supplied us with a few fine-flavoured fruit. Not every variety of Fig is adapted for pot culture, although those that have failed here may not do so in other gardens. The best that we have tried are White and Grizzly Bourjassotte. Gros Verte is also a dwarf-growing variety producing fine-flavoured fruit.

Orchard House.—There is a considerable drawback in the cultivation of any fruit or flower when two or more varieties requiring diverse treatment are grown in the same house. This is always the case when Strawberries and Peaches are grown together; syringe the Strawberries effectually night and morning until the fruit colour, even then red spider is sure to appear before all the fruit is gathered. The atmospheric conditions necessary to produce good flavour in Strawberries are the very opposite of those required for Peach trees making rapid growth, and having fruit in the earlier stages of development. Now that all the Strawberries in pots are cleared out, the house is shut-up early and the trees thoroughly syringed night and morning. The trees were surface-dressed for the first time last week, and after this dressing they start into a much more vigorous growth. If the trees are large enough, as they are in our case, they must be closely stopped-back. Abundant supplies of water are now essential, and the watering should always be done by the same man, who will, if he is attentive, get to know the quantity required by each tree, and will act accordingly. A close scrutiny must be made for aphids, as this must be destroyed by fumigation or washing on its first appearance. If this pest is allowed to have much license given to it, the trees will be permanently injured.

GREENHOUSE.

At this season the display of flowers in the greenhouse is kept-up by what is called in gardening phraseology softwooded plants, and if the house is to be kept tidy very much more work is required—removing petals that have dropped, or decayed and withered flowers. The stage Pelargoniums are now past their best, but Zonal kinds, Fuchsias, and other plants are very useful. A very distinct plant, though one not often seen, is *Lisianthus Russellianus*. If properly treated this is easily grown and lasts a long time in beauty. The seeds should be sown in light peaty soil in a hothouse; in a young state the plants are very easily killed if great care is not taken with them. The pot must be placed on a shelf near the glass, and shaded from sunshine. When large enough to handle place each plant separately in a very small pot, always keeping the pots on a shelf near the glass, and shading from sun during their growth. Our plants which have just come into flower were grown in the Melon houses, where the temperature has ranged from 60° to 65° at night since January. The potting material throughout has been Orchid peat with a small portion of leaf mould added to it, and the plants have flowered in pots 8½ inches diameter, inside measure. The Orchid peat is very porous, and the plants on that account should not suffer for lack of water at the roots. Probably this would be very injurious if not fatal to them.

We are now potting the Azaleas, and removing them to a house where they can have a good heat—70° or more at night; this should have been done two or three weeks ago, but to do all our work just when it ought to be done is more than we have yet been able to accomplish. The potting material for Azaleas is very simple, and is composed of turfy peat; the pots are also well drained. This is a matter that ought not to be done carelessly under any circumstances; but in the case of all hard-wooded plants that must remain three or four years in the same pots, the results of bad drainage must be obvious to any intelligent cultivator. The Azalea is very subject to the attacks of red spider, but when the plants are making their growth they require plenty of water at the roots; they must also be syringed

two or three times a-day, and they delight in a moisture-laden atmosphere.

We cannot grow *Carnations* and *Picotees* in beds in the open ground in the soil to be obtained here, but they succeed tolerably well in pots. Another advantage to be derived from this mode of culture is that the pots can be removed under glass when the flowers open, where they can be protected from the weather. Ours were removed indoors this week. Potting young plants of Tree or Perpetual-flowering *Carnations*. The plants intended to flower in November and December should be of large size by this time, and should be potted into their flowering pots by the end of this month or early in August.

Lilium auratum is now in full beauty, and when well grown has a magnificent effect in the greenhouse or conservatory. One or two others of the new species of recent introduction are very distinct and good. Messrs. Veitch, of Chelsea, exhibited one of the newest of the Californian species—*L. purpureum*, which gained a first-class certificate at Kensington; it is of small growth, densely spotted, and very sweet. We have *L. Washingtonianum*, *L. puberulum*, and *L. Humboldtii* now in flower; the first-named had only two flowers on a spike, but these were delicate in their colouring and very elegant. *L. Humboldtii* seems to be allied to the Tiger Lily in the formation of its flowers. One bulb threw up two spikes, and had more than a dozen flowers on one, and this bulb was so weak in its growth last year that it did not flower; the petals are turned back and meet at the points, they are of a bright orange colour, and densely spotted with brown and black.—J. DOUGLAS.

TO CORRESPONDENTS.

* * It is particularly requested that no communication be addressed *privately* to either of the Editors of this Journal. All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only.

We also request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

MARSHAL NIEL ROSE INFESTED WITH SCALE (F. E.).—Your plant is terribly infested with the brown mussel scale, which if not removed will destroy it. Take a hard brush, an old plate-brush or some such thing, and remove as much of the scale as you can with that. Then wash the shoots with a solution of Gishurst compound made by dissolving 8 ozs. in a gallon of water. Apply this carefully to the hard branches only, and avoid touching the foliage or tender shoots. Repeat this from time to time, and you may succeed in cleaning the plant. Winter is the best time to apply so strong a solution, when the tender growth is past, but as the case is a desperate one you may run the risk now. If this do not succeed, cut the plant down, and watch carefully the new growth.

NOTTINGHAM NETTING, &c. (Fifteen-years Subscriber).—You can get the netting of any of the seedsmen who advertise in our columns. It is not at all uncommon.

POPPIES AND CAMOMILE (C. C.).—We do not know of any manual that treats on the culture of these plants. We presume you mean field culture for medicinal purposes.

VINE ROOTS IN LEAF SOIL ON BORDER—POT VINES (R. S. M.).—If the soil is not more than a few inches thick leave it on, and apply the same depth to the other part of the border; but if it must be removed it will not be safe to do so until the present crop of fruit is ripe, and it will act injuriously to cut away and expose the roots to cold; therefore, you will need to apply a covering of leaves or litter when the leaf soil is removed. Stop the Vines in pots when they have canes 8 or 9 feet long, allowing the laterals to make two or three leaves before stopping, and when the wood is brown place against the wall or fence out of doors to harden. Prune to the length required when the leaves fall, removing to a cool dry house until required for forcing. The best compost for pot Strawberries is three-fourths turfy rather strong loam, one-fourth well-rotted manure, and one-sixth of old mortar rubbish.

BED OF CLEMATIS JACKMANI (C. R.).—We should not only well raise the bed in the centre, but also have the edge above the surrounding level. The soil should be sandy loam enriched with leaf soil, well-rotted manure, or decayed vegetable refuse. The stones may be placed on the surface, but not close together, leaving some openings between them for putting in pegs to secure the shoots to, and for top-dressings. We should have one plant in the centre of the bed, and others round the edge at 1 foot from it, the plants 4 feet apart. You will thus require six plants. Put in pots or stakes so as to be not more than 6 inches above ground, and to these secure the shoots. The slugs may be kept under by frequently dusting the bed with quicklime.

MUSHROOM SPAWN NOT RUNNING (T. W.).—There are various reasons why your Mushroom bed has not produced. The spawn may not have been good, and heat may not have been generated. Did you cover the bed with litter? Without knowing exactly your treatment we cannot tell the reason of your failure, but the probability is the fault was in the spawn.

CELINE FORESHIER ROSE (J. J. Cartwright).—We would recommend you to remove your Rose tree from the shaded eastern position in which it is now growing, as it evidently does not suit it. Let it have an open but sheltered situation. You need give yourself no trouble about *Spinex* (*Hoteia*) japonica. If you were to leave it in the ground it would bloom freely next year without

any winter protection. If, however, you wish to bloom a few plants in pots, take them up in autumn, pot them, and place them in your large cool frame.

DOUBLE PYRETHRUMS (*Old Subscriber*).—Annoire, Delicata, Duchesse de Brabant, Emile Lemoine, Gloire de Nancy, Hermann Stenger, Haage et Schmidt, Imbricaria plenum, Imperatrice Charlotte, Madame Boncharlat, Mons. Barral, Penn Ronce, Princess Charlotte, Progress, Rose Perfection, Solfatere, Striata plena, and Virginal.

CATERPILLARS AND APHIDES ON GOOSEBERRY BUSHES (*A. B.*).—To free them of caterpillars mix with a gallon of rain water 1 oz. of white hellebore powder, and keep close to the air. On a fine dry day shake well up, and with an old whitewash brush sprinkle the liquid on the trees infested by the caterpillars, repeating the application if necessary. Bear in mind that the hellebore is a poison. For the green aphid add six gallons of water to one of tobacco juice, and then 2 ozs. of soft soap to every gallon. Thoroughly dissolve and strain before use, applying to the bushes with a syringe, the ends of the shoots where practicable being dipped in the liquid. The aphides must be wetted with the solution. See answer to another correspondent in last week's Journal, page 516.

DEUTZIA GRACILIS AFTER FLOWERING (*Idem*).—Set them on and partially plunge in coal ashes in an open but sheltered situation out of doors, and keep them well supplied with water. When the leaves have fallen remove the plants to a cold pit or a sheltered spot, and plunge the pots to the rim in coal ashes. In January take them to the potting bench, reduce the ball a little, removing any loose soil, and picking out some with a pointed piece of wood, and after loosening the sides of the ball put in a size that will admit of some fresh soil all round. Afford good drainage. Sandy loam, with a little leaf soil is suitable. Place in a light airy position in the greenhouse, and keep moist, but watering carefully until the plants are in free growth, then supply moisture more freely.

BLACK HAMBURG GRAPES RUSTED (*E. W.*).—The probable cause of this is painting the hot-water pipes with flowers of sulphur, or the Grapes when in an early stage of their development were exposed to cutting winds. It cannot be called a disease, nor is it infectious.

ORANGE-TREE GRAFTING (*Mrs. Henderson*).—It is best done in spring when the stocks are commencing to grow. Place them in bottom heat to insure growth previous to the scions starting. Whip-grafting is the best mode for small plants, and for large stocks cleft or crown-grafting. They succeed best kept in rather close and moist. A little grafting-wax is better than clay; secure with cotton, and cover with a little fine moss so as to keep the graft moist and encourage the flow of the sap.

GLASS COPING OVER PEACH TREES (*Idem*).—It should not be removed. It is necessary to the ripening of the fruit and wood in summer and autumn, quite as much so as in spring for protecting the blossom and young tender growths. The trees would be better of thorough syringings in the evening, especially in dry weather and hot days, until the fruit change colour, with copious waterings at the roots in dry weather until the fruit swells for ripening. For the mildew dust with flowers of sulphur from a muslin bag, or the foot of a worsted stocking, and apply to the border a top-dressing of short manure after a thorough watering at the roots.

FRUIT TREES STOPPING (*Mrs. C.*).—Stop or shorten the shoots now—those required to form spurs to three leaves, if the shoots are not strong and the leaves distant, but more closely if vigorous, not leaving the shoots longer than an inch or two. These remarks apply to the shoots on the main branches, the leaders of which should be stopped at from 6 to 9 inches of growth, and at the third leaf afterwards. Your trees being young, you will require to leave shoots at about 1 foot apart every way, and treat them as main-branch leaders. The above observations apply to bushes and pyramids; if they are wall trees do not stop the shoot at the extremity of the branch, but lay it in at full length, and stop the other shoots at the third leaf. The leading or central shoot of the tree should be stopped when it has grown a foot, if it is vigorous; if weak, do not stop it, but shorten it in autumn to 12 inches. If the trees are fan-trained you will need at every 3 feet to originate a branch or shoot, and not stop it but lay it in at its full length, and so that at 3 feet it will for Plums be 9 inches from the branch below it. For Peaches the distance between the branches should be a foot. The side shoots ought to be pinched to one leaf after the first stopping.

CUTTING PEACH-TREE LEAVES (*E. A. Trichene*).—It is not beneficial to Peach trees in a forcing house to cut their leaves in two whilst fruiting. When the fruit is covered by the leaves it is desirable to admit light and air, in order to enable them to colour well and ripen perfectly, which they do not always when shaded by leaves. Shorten any leaves which overhang and crowd the fruit, but beyond this we do not recommend cutting or removing any of the leaves. The leaves are necessary to the thorough ripening of the buds, but if the shoots and leaves are much crowded it is better to thin-out the shoots so as to admit light and air, rather than seek to do so by the removal of the leaves.

RECENTLY PLANTED VINES NOT GROWING (*G. S.*).—The Vines have probably received a check from too much or too little water at the roots, or not applying it of the same temperature as the house. We should afford slight shade from bright sun, and maintain a moist atmosphere, watering only moderately until the Vines are growing freely, the soil, however, being kept moist, and when the growth is free water copiously. The laterals on the four side shoots we should stop at the first leaf, and remove all the laterals but the uppermost joint and the two lowest leaves, keeping those left closely stopped to one joint as growth is made. The laterals on the main cane we should not stop until six leaves were made for the first year of growth, to four for the second, two for the third, and afterwards stop the laterals at the first leaf, and after the first stopping keep to one leaf of each succeeding growth throughout the season. The Vines you have in pots we should plant out at once if the border is ready, and in planting spread-out the roots a little, but do not disturb the ball much, watering moderately, and shading for a few days until the Vines are re-established. The laterals may be stopped as described for the leaders of those planted out, and if kept in pots stop the laterals at the first joint, and stop the canes at 9 feet. They should be cut-back, after the leaves fall, to such a length as will allow of the cane reaching the trellis when planted out in spring.

MOTH (*Mrs. Carey*).—The moth is Sphinx Ligustri, the Privet Hawk Moth. Your letter has been sent to Mr. Johnson.

FUNGUS (*J. W. P.*).—The fungus on Mint is not the same with that on Hollyhocks, the spores are very different. It is Puccinia Anthrac.—M. J. B.

ROSES WITH INSECTS (*Miss Dennis*).—They are covered with aphides. The cause is the late cold east winds, which check the growth of the plants, curl the leaves, and allow the insects to get ahead. Wash your trees morn-

ing and evening with a strong jet of water from a garden engine or stout syringe. Or wash them with Gishurst compound, 2 ozs. dissolved in a gallon of water. Dissolve it and let it stand twelve hours before using it, and pour the clear liquid from the sediment.

INSECTS ATTACKING CINERARIA LEAVES (—).—The leaf sent shows the mines or channels formed within the substance of the leaf by minute larvae, which leave the upper and under surfaces entire. We believe they are caused by the larva of a very minute two-winged fly (Phytomyza sp.?), rather than by the caterpillars of a little moth, many of which have similar habits. Pick off and burn the attacked leaves.—I. O. W.

NAMES OF PLANTS (*Mrs. Henderson*).—We regret to say we cannot undertake to name Roses or other florists' flowers. Your other queries are in another place. (*R. Maries*).—Ad-antum reinfemore. (*Anna Liffey*).—It is like Beauty of Calderdale, but it is very difficult to name florists' flowers. (*S. B.*).—The Primula is verticillata var. sinensis, a native of Abyssinia. The bloom of Viola is a case of fasciation, or union of two. (*Subscriber*).—2, *Asclepias curassavica*. The Orchid was too shrivelled for determination. (*H. G.*).—*Cephalanthera grandiflora*. (*A. H. K.*).—1, *Thalictrum elatum*; 2, *Papaver pilosum*; 3, *Lunaria purpurea*. (*E. D. H.*).—*Astragalus glycyphyllos*. (*H. Etherington*).—1, *Oxyechium lucidum*; 2, *Nephrrolepis cordifolia*. (*H. Snodgrass*).—1, *Hypochaeris radicata*; 2, *Santolina* sp. (*S. G.*).—*Gloxinia tubiflora*, *Hook. f.* (*A. T.*).—*Sisyrinchium striatum*, *Sm.* (*B. T.*).—1, *Selaginella uncinata*; 2, *S. sp.*; 3, *S. Macdougalli*; 4, *S. Kraussiana* (?); 5, *Pteris serrulata cristata*; 6, *Lactaria* (too young). (*R. D. D.*).—1, *Saxifraga sarmentosa*; 2, *Lysimachia vulgaris*; 3, *Tanacetum vulgare*; 4, *Hypericum calycinum*.

POULTRY, BEE, AND PIGEON CHRONICLE.

HANTS AND BERKS SHOW AT READING.

It is always a trial to go from larger to smaller; the smaller should always by rights go before the larger, just as luncheon precedes dinner. Still, it is a badly-balanced mind that cannot enjoy smaller things as well as larger. I once sat by the side of a lady, a very young lady, at a concert in a county Town Hall, and on asking her if she enjoyed it she replied, "Oh! I was at a London concert last week. You should have heard Madame So-and-so sing." Now, the dear young girl positively did not enjoy her county concert because of having been at the one in London; though, perhaps, there was also a little vanity mixed with the affair. This, however, was wrong. Why not enjoy both? I have seen York Minster, but why should I not enjoy looking at Wells Cathedral? If you have seen the Lake of Geneva, good reader, don't go and turn up your nose at Lake Windermere; if you do, you are a bit of a goose, although I don't like slandering that sensible bird by comparing you to her. Fortifying myself with these reasonings I reach Reading, and mean to enjoy that Show, and not continually be turning up my nose because it is not so large as the Bath and West of England seen by me just a fortnight ago at Clifton. I remember the Hants and Berks at Reading eight years ago. I saw it then, and never before nor since, and well—it was not a large Show, certainly.

On reaching the station I lunch at the new refreshment-rooms, mindful of short commons perhaps, or bad fare, at the Show. I ask the waiter, just in an innocent way, what the church bells are ringing for. "Oh! sir, it's the Agricultural Show." "Many people in Reading?" "Never, sir, saw Reading so full. The Queen has sent a lot of stock, and so has the Prince." All this sounded promising; and it was evidently gala time—flags, streamers, bells, shops at their best, and all gaiety, and best of all, crowds of people. On my way to the Show-yard I saw unmistakable proofs of a large Show and not a small one. The great gathering outside, the nigger minstrels, the blind man reading, the large confectionary tents—in short, a sort of fair outside. Then the large number of carriages waiting, and the crowds pushing forward. The rumour that the Prince of Wales was to be present of course increased the multitude, especially of the many who gazed at the arrivals, but lacked the halfcrown for entrance.

I enter, and what a difference to the Show eight years ago! Hants and Berks is now just a rather smaller Bath and West of England, machinery in motion, implements, horse ring, and streets of bazaars included. No Fine Arts department, no horticultural tent, it is true, but a Dog show, which Bath and West of England lacks; and Sutton's seed pavilion in all its glory as at Clifton, and a whale to be seen for twopence!—rather a low affair this, surely! I mistake one of the dog tents for the poultry, not expecting two for dogs; but on entering I find I am wrong, for poultry do not bark or repose on velvet cushions.

At length I find the right tent, fair in size, yea sufficient, but shockingly hot and lacking ventilation. I find the numbers of the two Shows are as follows:—

BATH AND WEST OF ENGLAND.		HANTS AND BERKS.	
Poultry.....	431	Poultry.....	267
Pigeons.....	98	Pigeons.....	60
		Rabbits.....	23
		Extra Stock.....	4
	529		294

The Reading Show is now, as to pens, more than half the

size of the Bath and West of England. This was very different eight years ago. Dorkings begin the classes; this natural enough, as we are high the county whence they take their name. Spanish first at Bristol. Dorkings first at Hants and Berks, and among them first of all come Coloured Dorkings, cock and hen. I have myself no objection to this showing of pairs, and considering the pairs, the whole number of birds shown was 414, and at Clifton there were 262 single birds shown; so, counting single birds, and not pens, there was no such great difference between the two Shows. Counting bird and bird they stand thus—Clifton, 600 head of poultry; Reading, 414 head of poultry.

The Coloured *Dorkings* were good, but in the third-prize the hen was apparently half silver-grey, so light was her colour. Rev. G. F. Hodson also showed a very good pen. Of Silver-Greys proper there were very few, and those shown with the White; the first Whites a beautiful pair. All the varieties of *Cochins* were shown together. Among them, Balis first, White second, and Blacks commended; they might have been *h.c.* instead of *c.* Many of the *Game* were too small. Among Black Reds Mr. Matthews showed a beautiful pen, No. 35. The second-prize Brown Reds pleased me much. Mr. Matthews' first-prize Duckwings were beautiful; the second too light in colour; the next pen, No. 61, better in this respect according to my taste. The *Polands* were treated liberally, being separated into Golden and Silver. This, no doubt, was quite right. This arrangement brought three pens of Golden and five Silver; all were good. Mr. Hinton took first with a pair of Silvers, which he valued at only £22s., and nothing with a pair in his estimate worth £21! Of course the first-prize birds were sold at once, their price being only 10s. more than the prize they won. This singular difference of estimate in birds by a veteran fancier and veteran Judge was singular. My view was that the hen in the unnoticed pen was the better, particularly the marking of her topknot. Shall I congratulate or condole with Mr. Hinton on his luck? The *Spanish* were not much. The *Hamburgs*, unlike eight years ago, were numerous, but another show kept, it was said, Mr. Beldon's birds from Reading. In all the varieties there were many, and some good. In size the birds shown in the same varieties varied much, some to my mind being over large. *Brahmas* in both classes were strong, the Whites, even the prize birds, too yellow. Among the Dark was one pen, No. 141, that struck me more favourably than it did the Judge, for it was unnoticed; but then the Judge can handle birds, the reporter only can look at them, for I once tried, but was summarily stopped. The *Game Bantams* were too much Bantams. There was a pen which belonged to the same owner as the second-prize birds, and next to them, which contained a thoroughly good cock, wing well tucked-up, and tail without the suspicion of a squirrel turn. The Any other variety Bantams were not numerous—no Silver Sebrights (where were those shown at Clifton? they must have been first).

Passing the few French fowls of different varieties I reach one of the best classes in the whole Show—that for any description not in the former classes. First Malays. That noble bird of Mr. Hinton's, bred splendidly large—how did he manage to get him so fine? Second Black *Hamburgs*; rather too nearly related to Spanish. *h.c.s* were thickly scattered, a pair of Scotch *Dumplings* being thus noticed. The legs were short, but the fowls larger than I used to see in that class in Scotland. A pair of *Aedulians* were also present, a variety always grateful to the eye at a show from their unique colour; so also pleasant to see from their rarity was a pair of White Malays. If I were a committee, one man made into many, I should give more prizes to a Variety class than any other, for I am sure it is the class of all others that pleases the public. I would give four or five prizes, always withholding some unless the specimens were worthy. It must be borne in mind that other classes are for enthusiastic fanciers of their special varieties, but the Any variety is the people's class, and also the class in which a man exhibits his second and smaller hobby, or his wife's it may be; and "any variety" gives variety, and variety is always pleasing. Rouen *Ducks* good, Aylesburys not so good. Among other Ducks, good East *Indians* first; Mr. Sunsbury's *Shovellers*, shovel-like bills indeed, second. Two pens of *Muscovys*, formerly often seen in farmyards in the Fens. *Geese*, in pens, at least very few—only two. Mr. Ridley's *Turkeys* very fine.

PIGEONS.—The food is too often scattered on the floor, consequently the wattled birds were starving. I put this remark first, and I hope fanciers will demand that there should be pans for food or not send their birds. It is almost a case for the Society for the Prevention of Cruelty, and for an article in "The Animal World."

Carriers.—Second-prize better than the first if the cock had not been Roman-nosed. **Tumblers.**—Only two pairs: first good Kites, second fair Black Mottled. And tell it not at Glasgow, not a single *Pouter* in the Show, except a girl who was having a tiff with her lover in front of the pens, and she pouted so well I should like to have put her in a large pen, labelled "A good *Pouter*, but by no means to be commended." **Fantails.**—Blue first—first, no doubt, because of the rarity of this colour con-

sistent with fairness of shape and tail. Miss Milward won second with *Fantails* of the special *Fantail* colour—pore white. The *Trampeters* were much better than at Clifton. Blacks first, Mottled second. Almost all the eight pens had merit.

Homing Birds were very numerous indeed—the largest class in the Show. All but one pair belonged to Reading or its immediate neighbourhood. How these birds were to be managed was in this way: "The birds," said the catalogue, "will be liberated at two o'clock on the last day of the Show, having been previously stamped with a number which will be unknown to the owner. The prizes not to be paid to the winner unless the number which will be found on the birds on their return home be communicated to the Secretary by a letter posted on the day after the Show." This notice I own I cannot understand. First prize, according to ordinary judging in the tent, went to a pair of Silvers; second to a pair of Red Chequers, by no means of a rich colour.

The Any other distinct variety class—seventeen pens, three, however, empty—brought together a pair of Runts not matching; a pair of very old Barbs, which reminded me of the tale of a poor woman near me, who bought a second-hand dress of a material which had once been very good rather than a new dress of an inferior material, new and showy, but not good. Upon her being questioned by a neighbour as to her preferring the old dress to the new she answered, "I like the has-beens better than the never-wases." The second prize in this class went to a pair of *Isabels*—the cock a nice upright bird—or, as they did not show clearly the white bars, they might be called *Pigmy Pouters*. But the *Pigeons* that caught and attracted my attention most were entered as *Chequered Autwerps*. These, thus called probably by the printer's mistake, should surely be called *Chequered Archangels*, and exceedingly pretty birds they are—good, clear, blue-chequered wings and yellow necks, the colours contrasting admirably, and the form *Archangel*-like. I should like to know the history of these birds, and whether they breed true, for without doubt they are very pretty.

Such were the poultry and *Pigeons*. I strolled through the Dog tents, and shall not soon forget a lovely *Maltese* reposing on its blue velvet cushion, on which was embroidered its name, "Madge." I looked at the Rabbits, and was glad, as a fancier of *Lops* when I was a boy, that they held their own still. I walked from one part of the Show to another; had to pay 2d. for sitting two minutes in a chair, a very sharp boy pouncing on me, and a man of stern aspect coming up after and demanding a second 2d., and scarcely believing me when I told him I had already paid. Oh, Hants and Berks! this is scarcely a "royal" proceeding to charge for a rest on a chair. Why, Bath and West of England would scorn to do it, for around the band-stand were at Clifton plenty of seats, and the music was listened to without being disturbed by exacting man and boy. I noticed in my ramble a very pretty rustic pole-house for *Pigeons*. I notice it, not wishing anyone to buy or erect such a cruel abode for the poor birds, but simply to show that the fancy is attracting attention now, or such an ornamental work would scarcely have been exhibited. May the Hants and Berks prosper, and increase as much in the next eight years as in the eight years that have last passed.—WILTSHIRE RECTOR.

MORE SHOWS.

I was exceedingly pleased this week to hear that another town in Devonshire was about to hold an exhibition of poultry and *Pigeons* for the first time. It always gives me pleasure to hear such news, so I wrote and obtained the list of prizes that were to be offered; I found they were small to what we generally see, but I also found that the entry fees were small as well, and in proportion to the prizes. Taking into consideration that the town contains only a few inhabitants comparatively speaking, that there are only a small number of fanciers residing there, if any, and that this is the first effort—taking into account these drawbacks, I think the deficiency in the amount of the prizes cannot be wondered at. But my object in writing this is not so much about the South Molton Show, for that is the name of the place to which I refer, but to put it forth as an example to other places which have every opportunity to form a good show. There are scores of towns in England that have everything that is necessary to get up a really good exhibition, and yet with all their advantages they do not make a beginning. I feel certain that if some of these places were to make an effort by offering liberal prizes with low entry fees, were to adhere to the regulations that are formed, and were to have competent judges, they could not fail to make it a success. Let every town make the most of the advantages it already has; and should anybody be desirous of establishing a Show, let him take care that there is no other show to be held on the same day that will be likely to interfere with the arrangements. This can be avoided by advertising when the show will be held as soon as it is decided upon. Also let sufficient and qualified judges be appointed, and let the public know who they are to be by printing their names on the list of prizes, and in the poultry journals. I trust

shortly to see some more towns making an attempt to form poultry and Pigeon Shows, and I hope their exertions may not be in vain.—F. S. H.

THE STANDARD FOR PRIZE POULTRY, &c.

Upon reading the account of the formation of the National Ornithological Association at the last Crystal Palace Poultry Show, I was in hopes there was a possibility of something definite taking place in the matter of deciding upon a standard for judging poultry, &c., but up to the present time there seems to be no likelihood of anything being done in the matter; and the more I hear and see of the conflicting awards at the different shows, the more I am convinced of the necessity of some standard rules being laid down, to guide not only exhibitors but also the judges in making their awards. At the present time it is quite a lottery in prizetaking; each judge seems to have a standard of his own, frequently at variance with that of others; but I am of opinion the matter might easily be set at rest if our principal judges would take it in hand and agree amongst themselves what shall be the correct standard for prize poultry.—AN OLD FANCIER.

WHAT IS A "WHITE" BANTAM?

I RECENTLY received a prize-list of the Ipswich Show, and finding a class for "Black or White" Bantams, entered a pen of the former, on the supposition that those two varieties only would compete. The third prize was awarded to a "Japanese." Now, this might be a "White Bantam" (provided it was not one with a black tail) in a broad sense, but certainly is not what is generally understood to be such; and it was either a mistake to award the prize so, or the schedule was calculated to mislead. I, amongst many others, make it a rule never to show where more than the Black and White Bantams compete in one class, and I should not have entered for Ipswich had I known the class was open to other varieties.—E. CAMBRIDGE.

THE POULTRY-KEEPER.—No. 9.

LA FLECHE.

COCK—CHARACTERISTICS.

Body.—Well formed, firmly set on long and strong legs. The bird seems smaller than it is in reality, because the feathers are close-fitting. All the muscular part is well developed. Plumage black. Of all the French cocks the La Flèche (fig. 4)



Fig. 4.—La Flèche Cock.

is the one of most upright carriage. It is much like the Spanish, from which some believe it has been bred by crossings with the Crève-Cœur. Others think this variety is descended from the Breda, to which it has some points of resemblance. Skin white

fine, transparent, and elastic. Flesh tender, juicy, delicate, and readily fattened.

WEIGHT, SIZE, AND PECULIARITIES.

Weight.—At full age from 7½ lbs. to 8 lbs. 13 ozs. Flesh extremely fine and abundant. Bones light, about one-eighth of the weight.

Size.—From the upper part of the head to under the feet, 21½ inches. In an upright position, 25½ inches. From the back under the feet, 16½ inches.

Body.—Circumference taken in the middle under the wings, and where the thighs join it, 22½ inches.

Length of Body.—From the beginning of the neck to the end of the rump, 11 inches. Size of shoulders, 7½ inches.

Head (fig. 5).—Length, 3½ inches. Cheeks nearly naked from the beak to the ear.

Crest.—A little plume of feathers, sometimes short and straight, and sometimes long and drooping, is placed on the forehead, but behind the comb.



Fig. 5.—La Flèche Cock's Head.



Fig. 6.—La Flèche Cock's Comb.

Comb (fig. 6).—From 1½ inch to 2 inches, transversal, double, in the form of horns, bending forward, united at their base, usually far apart at their points, often united and pointed; sometimes having in the middle some branches. A small double comb which comes out of the upper part of the nostrils is placed about ¼ inch in front, and though hardly as big as a pea, this, which surmounts an elevation formed by the enlargement of the nostrils, gives a peculiar look to the head.

Wattles.—Hanging and very long, from 2½ inches to 3½ inches.

Ears.—Very large and folding under the neck, of a clear dull white, especially at the mating time. It is those which have the greatest white ears that most resemble the Spanish. The little bunch of feathers which covers the auditory organ is black.

Nostrils.—Very open, and of a peculiar shape. They are formed within the elevation that is in front of the small comb.

Beak.—Strong, slightly bent, of a grey sombre colour, becoming yellow at the point. Length, 1½ inch.

Iris of Eye.—Brilliant red, more or less deep.

Pupil.—Black.

Physiognomy of the Head.—The physiognomy is determined above all by the little elevation which comes out around the nostrils, surmounted by a little comb. This prominence of the comb seems to increase the characteristic depression of the beak, and gives some likeness to the rhinoceros. The comb and horns are like the Crève-Cœur, and the large white ear is like the Spanish.

Foot.—Sole of the foot very strong and very muscular. Circumference, 2½ inches.

Toes.—Strong, with long claws. Middle ones, 3½ inches; inside and outside, 2½ inches; hind one, 1½ inch.

Colour of the Foot.—Blue slate, more or less dark according to age, turning to dark grey in old age.

Weight of Chicken.—The chickens may be eaten when about five months old, but generally they are not fattened till seven or eight months old, the time when they have arrived at their last stage of growth. The male then takes the name of "a maiden cock," and when his fattening is ended, which should last a month or six weeks, he weighs 11 lbs. or more. A maiden cock not fattened at the age of eight months is from about 7½ lbs. to 8½ lbs., equal in weight to an adult cock in good condition. The weight of the flesh is variable, according to the stage of fattening, and if that of the bones is one-eighth in its normal condition, it is under that when the bird is fattened.

Plumage.—The plumage of La Flèche is entirely black, with the exception of some small white feathers, which may sometimes be seen in the small crest. The feathers of the neck are

long, fine, and thick; are iridescent with green and violet, and so are the feathers of the breast, the wings, the covert of the tail, the sickles, the extremities of the shoulders, the large feathers of the pinion, and the outside flight ones. The feathers of the thighs and the outside of the pinion are black. The feathers of the abdomen and of the side are greyish black. Amongst the large flight feathers are some of violet black with a green iridescence, and there are some white feathers before the first moulting.

DRIFFIELD POULTRY SHOW.

THE annual Show was held on June 21th, and but for a heavy thunder shower was a great success; but the rain was so heavy as to wet the birds to such an extent, that it was with great difficulty some of the awards were made.

Dorkings were of no great merit with the exception of the first-prize pen, which consisted of capital Dark Greys; but *Cochins*, on the contrary, were a fine collection, a splendid pen of Buffs winning the cup, and the same exhibitor also winning the second prize. *Brahmas* were poor in all respects, while the *Spanish* were but moderate, and only two pens were shown. In the three classes of *Hamburghs* there were only ten entries; the cup being won, however, by a good pen of Golden-pencilled, the first in Spangles being Silvers of fair merit. There were twenty-two entries in all of *Game*, the cup being awarded to a Black Red stag of promise, but which will improve with moulting; the second prize in the Red class going to Brown Reds of fair quality. The first-prize Duckwings were very good, but the rest poor, while the single cocks were a bad class. There was one class for *Game Bantams* and one for other varieties, all the birds in the latter being Blacks. The cup for Bantams was won in the single cock class, if we mistake not, by the Acering-two cup cock, which was shown in fine order; second coming a stylish Pile. Mr. Harvey's Golden Polands were awarded a cup in the Variety class, and well merited their position.

The **PIGEONS** were a good entry, and some of the winners will doubtless be heard of again, the cup for the best pen being awarded to a White Pouter cock such as we have not seen of late for style, girth, and carriage, the second being Black. The first-prize bird at Thorne was altogether out of show condition. Jacobins formed a capital class; the first a Red, very good in hood and chain. Fantails were very good, and the winners well placed. In the Tumblers awards were made more to head properties than colour, the first-prize bird failing much in the latter point. Nuns were very good, but the Dragons poor as a class; the first was, however, a good Blue. In Antwerps only two awards were made, and we considered this a stretch of privilege, the quality being very poor. In the Variety class a good Blue Owl stood first, with a Barb second.

A flying match from Scarborough to Driffeld excited some interest, the first being £1 by the Society, and second and third prizes given by tradesmen.

RABBITS.—The Lop-eared were a very good class, and many were noticed in the list, the first prize going to a Tortoiseshell doe of good length of ear and good colour, but not one of the largest, yet the award was correct. Second came a Black-and-white. In Himalayans both prizes were won with fair Rabbits, but there is room for improvement in this variety. A well-known doe won in Silver-Greys, but this is not in the best show condition, a fair buck being second.

DORKINGS.—1, W. Moritt, Goole. 2, R. W. Richardson, Beverley. c, D. White, Driffeld.

SPANISH.—1 and 2, J. W. Duggleby, Driffeld.

COCHINS.—Cup, 1, and 2, G. H. Proctor, Durham. *hc*, J. Allison, Driffeld; E. Winwood, Worcester; D. & J. Ibeson, Whitby. c, W. Harvey, Sheffield.

BRAHMAS.—1, F. Dobson, Kirbymoorside. 2, W. G. Purdon, Driffeld.

HAMBURGHS.—*Gold or Silver-spangled*.—1, J. W. Duggleby. 2 and *hc*, G. Holmes, Driffeld. *Gold or Silver-pencilled*.—Cup, 1, and 2, G. Holmes. *Cock*.—*Any variety*.—1, Master C. Holmes, Driffeld. 2, J. W. Duggleby.

GAME.—*Black-breasted or other Reds*.—Cup and 1, G. Akroyd, Sheffield. 2, H. M. Julian, Beverley. *hc*, Master T. Holmes; W. Adams, Ipswich. *Any other variety*.—1 and 2, A. & H. H. Staveley, Tibthorpe, Driffeld. *hc*, J. W. Duggleby. *Cock*.—*Any variety*.—1, H. M. Julian. 2, G. Sutton, Bootham, York. *hc*, M. Hunt, Bridlington.

BANTAMS.—*Game*.—1, F. Steel, Halifax. 2, E. Newbitt, Epworth. *hc*, R. J. Harley, Altrincham. c, W. Adams; Master C. Holmes. *Any other variety*.—1, W. Robinson, Driffeld. 2, Master Baron, Driffeld. *hc*, I. Dyson, Halifax; H. White, Norton, Malton; R. H. Ashton, Mottram. *Cock*.—*Any variety*.—Cup and 1, G. Anderson, Accrington. 2, E. Newbitt. *hc*, W. Adams. c, R. Stabler.

ANY OTHER VARIETY.—Cup and 1, W. Harvey, Sheffield. 2, G. Holmes.

FARMYARD CROSS.—1, G. Pounder, Kirbymoorside. 2, J. Ireland, North Fordingham. *hc*, G. Robinson, Fordingham.

SELLING CLASS.—1, G. Holmes. 2, T. Hope, Nantwich. *hc*, Miss E. Holland, Halifax; W. H. Young, Driffeld; G. Holmes, Driffeld. c, W. Hyde, Welham; R. Stabler.

TURNKEYS.—1, J. S. Jordan, Elmswell. 2, W. Taylor, Driffeld Wood.

GEES.—1, Mrs. A. O. Young, Driffeld.

DUCKS.—*Aylesbury*.—1, Mrs. Young. *Any other variety*.—1, C. Crowe, Bridlington. 2, Mrs. J. S. Jordan.

DISTINCT VARIETY.—*Six chickens*.—1, J. W. Duggleby (Spanish). 2, J. S. Jordan (Black Red Game). *hc*, G. Copley, Driffeld; Mrs. Hodgson, Driffeld; Mrs. Naylor, Driffeld.

PIGEONS.

CARRIERS.—1, J. E. Crofts, Blyth, Workop. 2, W. Harvey, Sheffield. c, J. A. J. Pickering, Mrs. Blanchard, Driffeld.

CROPPERS.—Cup and 1, Mrs. Blanchard. 2, J. E. Crofts. *hc*, J. Fawcett, Whitby. c, A. Spencer; J. Hainsme, Hull.

JACOBINS.—1, J. Blanchard, Driffeld. 2, J. E. Crofts. *hc*, J. Maynard, Driffeld; D. M. Garside, Manchester; J. Blanchard. c, W. W. Beerott, Hull; W. Harvey.

FANTAILS.—1, R. W. Richardson, Beverley. 2, C. Hall, Driffeld. c, J. Loveridge, Newark; C. N. Lythe, Gillingham, Hull.

TUMBLERS.—1, W. Adams. 2, W. Harvey.

NUNS.—1, R. W. Richardson. 2, J. A. Blanchard. *hc*, W. Leason, Driffeld.

TURNKEYS.—1, R. W. Richardson. 2, J. E. Crofts. *hc*, Master R. Maynard.

MASTER J. A. BLANCHARD.

TURNKEYS.—1, J. E. Crofts. 2, J. Marshall, Driffeld.

DRAGONS.—1, W. Harvey. 2, G. Blakey, Driffeld. *hc*, R. W. Richardson.

C. W. SMITH, LIVERPOOL; MISS N. MAYNARD, DRIFFELD; J. E. CROFTS; W. W. BEEROTT.

TURNKEYS.—1, J. W. Duggleby. 2, G. Blakey.

ANY OTHER VARIETY.—1, R. W. Richardson. 2, J. Aconley. *hc*, J. E. Crofts;

C. WROOT, HULL; W. HARVEY. c, R. W. RICHARDSON; J. BLANCHARD.

SELLING CLASS.—*Single or Pairs*.—1, Miss E. Maynard. 2, J. Aconley. *hc*, J. E. Crofts.

FLYING RACE.—1, W. Foster, Driffeld. 2, G. T. Foster, Driffeld. 3, T. Laycock, Driffeld.

RABBITS.

LOPS.—1, S. Myton, Fortes Noll, York. 2, J. Hume, York. *hc*, W. H. Raylor, Driffeld; S. Myton; J. Bowman, York; J. Wharton, York; J. Blakey. c, S. Myton; Master H. Hope, Driffeld.

HIMALAYAN.—1 and 2, W. Donkin, Driffeld. *hc*, J. Hudson, Driffeld.

SILVER-GREY.—1, J. H. Brand, Barton. 2, J. Mason, Hull. *hc*, J. Chappel, Dewsbury Moor.

ANY OTHER VARIETY.—1, W. Donkin. 2, A. Lund, York. *hc*, Master Topham.

BOSTON; J. MASON, c, J. MASON.

RABBIT.—Cup, W. Donkin.

CAT.—*Any variety*.—1, J. T. Foster, Little Driffeld. 2, W. Dale, Driffeld.

EXTRA STOCK.—1, Master Topham; Miss Robinson, Swaythorpe (Guinea Fowls). 2, G. Hawkins, Driffeld; Mrs. Rawlinson (Guinea Figs).

The Judges were Mr. W. Cannan, of Bradford, and Messrs. Maynard and Preston.

DONCASTER POULTRY SHOW.

THE good old town of Doncaster held its annual meeting on June 25th and 26th, when there was a good attendance of visitors.

Game were first, and in five classes had thirty-five entries, although taken altogether the entries were but scanty, at which we were surprised, for the prizes were good, though the classification was defective, as will be seen in the *Hamburghs*, where the Golden-pencilled were left out altogether. The cup for *Game* was awarded to a Brown Red cock, which though good was very deep in moult; the second, a Black Red very good, might have occupied that position, and in the following class the awards were considered to be bad, the second-prize pair being by far the best. In the next class a good pen of Brown Reds won; we think they were about the best pen in the Show, and the second prize we should have placed on pen 549. In Duckwings the hen in the winning pen was perfection. Messrs. Thornton and Chaloner also showed well. Of Silver-Grey *Dorkings* there was but one entry, but there were ten of Dark-Greys, the prizes being well placed. In *Spanish* the first-prize cock was very coarse, but the hen was excellent. The second-prize cock was fine, but the hen not equal to the first. The third-prize pen contained a good hen. In *Cochins* the first and third were Buffs, and the second White. In *Brahmas* the first-prize cock was perhaps one of the best that has been exhibited, but the hen was poor. We did not agree with the second and third awards, which ought to have been placed on Mr. Crabtree's pen. To know the quality of the *Hamburghs* we need only refer to the prize-list, where we find Mr. Beldon winning with every pen, as also in *Polands*. In *Game Bantams* we found them all Black Reds in the first class, Mr. Entwistle leading with the best coloured pair of Black Reds that has been seen for some time, securing the second prize also, and the third well deserved its position. In the following class Piles were first and second, no third being awarded. There was a class for Whites with only one entry, while no class was provided for Blacks, of which there is always a good muster, nor for any other colour. Of *Turkeys*, *Geese*, and *Ducks* the entries were few, but the winners generally good.

PIGEONS.—There were six classes with thirty-nine entries, Mr. Yardley winning three first prizes with good birds. In Carriers the first was a well-known Black cock, and second a Dun. In Jacobins, however, the awards were badly placed, Pen 701 being by far the best in the class, and unnoticed. In the Variety class the first were Black Barb, and second Ice Pigeons, and the awards were well made; but in Fantails the prizes ought by all means to have been reversed. The Selling class had six entries, the first White Turbitts, second poor Ice Pigeons, while a pair of Black Swallows ought in our opinion to have been in the list. Turner's pens were used, and the arrangements and attendance were very good.

GAME.—*Cock*.—Cup and 1, C. W. Brierley, Middleton, Manchester. 2, C. Chaloner, Whitwell, Chesterfield. 3, J. Fletcher, Stoneyhough, Manchester.

c, H. M. Julian, Hull; J. Jackson, East Markham, Tuxford.

GAME.—*Black-breasted Reds*.—1, J. Mason, St. John's, Worcester. 2, T. Woods, Sooton, Workop. 3 and *c*, C. Chadner, Whitwell, Chesterfield.

GAME.—*Brown and other Reds except Black-breasted*.—1, C. W. Brierley. 2, H. M. Julian, Hull. 3, Sales & Bentley, Whitwell, Chesterfield.

GAME.—*Duckwings and other Greys and Blues*.—1, Sales & Bentley. 2, J. W. Thornton. 3, C. Chaloner. c, W. HAWA, Tickhill, Rotherham; F. B. Frank.

GAME.—*Any other variety*.—1, R. Walker, Gomersal, Leeds. 2, C. W. Brierley.

3, H. C. & W. J. Mason, Bristol, Leeds.

DORKINGS.—*Silver-Grey*.—1, W. Roe, Newark. *Any variety*.—1, J. Walker, Rochdale. 2, J. White, Warley, Northampton. 3, W. Moritt, Goole.

SPANISH.—1, J. Thresh, Bradford. 2, H. Beldon, Gillingham, Bingley.

BURCH & BOUTLER, SHEFFIELD. c, J. POWELL, BRADFORD.

COCHINS.—1, W. H. Crabtree, Levenshulme, Manchester. 2, W. Whitworth, jnn., Longsight, Manchester. 3, J. White, Whitley, Netherthorn, Wakefield. c, H. Beldon.

BRAHMAS.—Cup and 1, W. Whiteley, Sheffield. 2, J. F. Smith, Sheffield. 3, T. F. Abndell, Cowley Mount, St. Helen's. c, W. H. Crabtree; G. Fox, Hanfield, Wilmslow, Cheshire.

HAMBURGS.—*Silver-spangled*.—1 and 2, H. Beldon. 3, Ashton & Booth, Broadbottom, Mottram. *Silver-pencilled*.—1 and 2, H. Beldon. 3, J. Clarke, Doncaster. *Golden-spangled*.—1 and 2, H. Beldon.

POLANDS.—1 and 2, H. Beldon. 3, A. Silvester, Sheffield.

BANTAMS.—*Black-breasted and other Bantams*.—Cup, 1, and 2, W. F. Eutwile, Westfield, Bradford. 3, J. K. Fletcher. c, Sales & Bentley. *White*.—1, Pickles and Whittaker, Greatfield, Edinfield, Eury.

GAME BANTAMS.—1, J. K. Fletcher. 2, F. Steel, Halifax.

FRENCH FOWLS.—Cup, W. H. Crabtree.

ANY VARIETY.—2, A. Cameron, Epworth; W. Mitchell, Birkenshaw, Leeds. c, W. Roe, Newrick; E. A. Johnson, Wath-upon-Deane.

GUINEA FOWLS.—1, W. H. Young, Driffield. 2, C. Stacey, Wilby, Doncaster.

TURKEYS.—1, J. Walker, Rochdale. 2, Miss Jordan, Eastburn, Driffield.

DUCKS.—*Aylesbury*.—1 and c, J. Walker, Rochdale. 2, W. Stonehouse, Whitley, Rouen. 3, W. Swann, Redington. c, J. Walker. c, G. Fentiss, Kirby Moorade; G. Fox, Hanfield, Wilmslow. *Any other variety*.—1, J. Walker. 2, Mrs. Arkwright, Sutton Scarsdale, Chesterfield. c, G. Liddle, Doncaster.

GESE.—1, J. White. 2, J. Walker.

SELLING CLASS.—1, Burch & Boulter, Sheffield (Spanish). 2, W. Whiteley, Sheffield. 3, J. B. Hepworth, Bears Wood Green (Game). c, F. B. Frank, Doncaster (Golden Sebright Bantams).

PIGEONS.

CARRIERS.—1, H. Yardley, Birmingham. 2, J. E. Crofts, Blyth, Worksop.

JACOBIANS.—1, H. Yardley. 2, S. Bamford, Conisborough. c, C. Anton, York.

ANTWERPS.—1, H. Yardley. 2, C. Anton.

ANY OTHER VARIETY.—1, C. Anton. 2, J. E. Crofts. c, J. Skilbeck, Coulton, Hovingham, York; H. Yardley.

FANTAILS.—1, W. W. Fowler, Pontefract. 2, J. F. Loversidge, Newark. c, H. Yardley, C. Anton.

SELLING CLASS.—1, W. W. Fowler. 2 and c, J. E. Crofts.

JUDGE.—Mr. J. Dixon, North Park, Bradford.

THIRSK POULTRY SHOW.

THE annual Show of the Agricultural Society was held at Thirsk on June 21th, in a large field very pleasantly situated, and with the exception of a drenching thunder-shower, which, though affecting the receipt of gate-money in a very serious manner, was not at all unwelcome in the parched-up state of the pastures in this neighbourhood, the day was a genial one. The pens used for poultry and Pigeons were those of the Society, made of wood on three sides, with a moveable front, and were both convenient and comfortable. Although the prizes were but small, and in Pigeons only one in a class, yet there were some very good birds; and the town being well situated for the transit of the birds, we strongly advise the Council to recommend an extended list, which will, without doubt, prove something like self-supporting.

Dorkings came first, two grand pairs of massive birds taking the prizes. *Spanish* cocks were poor, but the hens good; and in *Buff Cochins* were some very creditable specimens. Partridge were but poor; while only the winners in *Brahmas*, Dark and Light respectively, demand a note. *Golden-spangled Hamburgs* had three good pens, notably the first, which were as nearly correct as possible. *Silvers* were wretched; while the *Golden-pencilled* had a large entry, and some good ones; but in *Silvers* only one prize was awarded. In *Polands*, *Golden* won both prizes, and a fair pen of *Silvers* was shown. *Black Hamburgs* were poor as regards the cocks, but the hens were good. *Black Bantams* were a large class. There were many nice birds shown, though some were a little out of feather, the first being very neat; but they would have been beaten by the second had not the cock been in the wars. A third was awarded, and the hen in this pen was very small and pretty. *Game Bantams*, with the exception of the winners, were very shabby, and we recognised some recent winners in rather poor plight in that respect; the first being a stylish pair of *Duckwings*; and the second, though rather large, very fine in colour. In the *Variety* class, *Silver Sebrights* were first, and *White-booted* second.

Both *Rouen* and *Aylesbury Ducks* were very good; while a grand small pair of *Blacks* were shown in the next class. *Turkeys* and *Geese* were good in size, but few in number. In the *Variety* class were, first capital *Creve-Coeurs*; second *Houdans*, good and perfect in combs; while some good *Silbies* were highly commended.

A class was provided for chickens, but the show being a month earlier than heretofore they were not so well developed, but some promising birds were to the front; *Buff Cochins* being first, *Dark Dorkings* second, and two nice pairs of *Spanish* were very highly commended; no doubt these will be heard of again.

For *Pigeons* only one prize was offered, but the entries were pretty good, the quality of the winners being quite up to the mark. *Carriers* were a very equal lot, *Blacks* being first, and *Duns* highly commended. In *Pouters* a pair of smart stylish *White* stood first, and measured well; a good pen of *Red-pied* came unpleasantly close. *Tumblers* were poor; but the first-prize *Red Jacobins* very good; and *Fantails* a grand class in all respects. Of *Trumpeters* there was only one pen; and two of *Owls*, the first *White English*, and though good, showing a lot of the *Barb* cross. *Nuns* fair, but some trimmed; while the quality of *Barbs* was not high. Of *Dragoons* and *Turbits* there

was but one pen each. The *Variety* class was very interesting, a good handsome pair of *Black Swallows* winning first; *Plain-backed* Ice second; while two pairs of *Magpies* were noticed in the list. An able staff of attendants looked well to the comfort of the birds, in both food and water, and all were penned and repacked with the greatest promptness.

DORKINGS.—1 and 2, J. White, Warshaw, Northallerton. hc, T. P. Carver, Langthorpe, Boroughbridge.

GAME.—1 and 2, J. Watson, Knaresborough. 2, J. Robshaw, Whitley.

SPANISH.—*Black*.—1 and 2, Pallister & Hawkins, Tophelfe. 2, H. Dale, Northallerton.

COCHIN-CHINA.—*Buff*.—1, D. & J. Ibbeson, Whitley. 2, Lady Bolton, Bedale. hc, Wells & Sherwin, Ripon. c, Mrs. Brown, Easingwold. *Partridge*.—1 and 2, J. Bell, Kirkcaldie, Thirsk.

BRAMA-FOOTIA.—1, Mrs. Brown. 2, G. F. Umpleby, Boroughbridge. c, Mrs. Reed, Fotto, Yarm.

HAMBURGERS.—*Golden-spangled*.—1 and 2, G. Fentiss, Marton, Kirbymoorside. hc, T. P. Carver. *Silver-spangled*.—1, G. Waite, Swanton, Malton. 2, C. Holdsworth, Harrogate.

HAMBURGERS.—*Golden-pencilled*.—1, T. & G. Kidson, Norby, Thirsk. 2, J. Webster, Whitley. hc, G. Shipper, Kirbymoorside; D. Waller, Stokesley; C. Metcalfe, South Kilvington; J. Watson; Wells & Sherwin (2). c, J. Robshaw; J. Wetherill, Northallerton. *Silver-pencilled*.—1, J. Robshaw.

POLANDS.—1 and 2, J. Watson. 2, J. Clayton, Thirsk.

BANTAMS.—1 and 2, C. Walker, Boroughbridge. hc, T. Nuno, Thirsk.

BANTAMS.—*Black*.—1, Wells & Sherwin, Ripon. 2, R. H. Ashton, Mottram. vhc, T. P. Carver. hc, F. Steel, Stump Cross, Halifax; T. P. Carver. c, J. W. Corner, Whitley; Pallister & Hawkins; A. G. Mitchell, Bishop Auckland.

GAME BANTAMS.—1, F. Steel. 2, W. Gray, Towlaw, Darlington. hc, W. C. Dawson, Whitley (2). c, J. G. Bell, Ripon.

GUINEA FOWLS.—1, W. C. Dawson, Whitley. hc, T. P. Carver. 2, J. H. Cartwright, Wetherill, Northallerton. *Any other variety*.—1, T. P. Carver. hc, Wells & Sherwin.

DUCKS.—*Rouen*.—1, G. Fentiss. 2, T. P. Carver. hc, C. Graham, Aldborough, Boroughbridge; T. P. Carver. *Aylesbury*.—1 and 2, T. P. Carver. *Any other variety*.—1, T. P. Carver. 2, Mrs. Reed.

TURKEYS.—1, C. McC. Swarbrick, Sowerby.

GESE.—1 and c, J. Arrowsmith, South Kilvington. 2, Wells & Sherwin. hc, W. A. Speck, Thornborough, Thirsk.

GUINEA FOWLS.—1, Wells & Sherwin.

SELLING CLASS.—1, Pallister & Hawkins. 2, C. Holdsworth. hc, J. Cooper, Thirsk; T. P. Carver.

ANY OTHER VARIETY.—1, T. P. Carver. 2, Lady Bolton (Houdans). vhc, C. Holdsworth (Japanese). hc, Hon. W. O. Powlett, Bedale (Creve-Coeurs). c, J. Morton, Skipton-on-Swale (Mascary Ducks); C. Lickley, Ripon (Black Cochins-China); Miss Jaques, Richmond (Houdans).

ANY VARIETY.—*Chickens*.—1, Lady Bolton (Dark Brahmas). 2, J. White (Coloured Dorking). vhc, Pallister & Hawkins (2). Lady Bolton (Houdans). hc, Hon. W. O. Powlett (Light Brahmas); Lady Bolton (Buff Cochins); J. E. F. Fountier, Yarm (Black and Red Game). c, F. C. Taylor, Middlesbrough (Golden-pencilled Hamburgs).

PIGEONS.

CARRIERS.—1, J. Aconley. hc, D. M. Garside, Broughton; Wells & Sherwin; T. C. Taylor.

TUMBLERS.—*Almond*.—1, Wells & Sherwin. *Any other variety*.—1, Wells and Sherwin.

POUTERS.—1, J. Aconley. hc, Wells & Sherwin.

JACOBIANS.—1, J. Aconley. c, T. C. Taylor.

FANTAILS.—1, R. Wilson, Thirsk. vhc, T. C. Taylor; J. Wetherill, Northallerton. hc, Q. T. Blinn, Higher Broughton; Wells & Sherwin.

TRUMPETERS.—1, R. Wilson.

OWLS.—1, J. Aconley. hc, D. M. Garside.

NUNS.—1, Wells & Sherwin. hc, R. Wilson.

BARBS.—1, J. Aconley. hc, R. Wilson; Wells & Sherwin.

TURBITS.—1, R. Wilson.

DRAGONS.—1, Wells & Sherwin.

ANY NEW OR DISTINCT VARIETY.—1 and vhc, Wells & Sherwin (Swallows and Iech. hc, F. J. Kettlewell, Sowerby (Black and White Magpie); R. Wilson (Magpie).

The Judge was Mr. E. Hutton, Pudsey, Leeds.

IPSWICH POULTRY SHOW.

ALTHOUGH it must be admitted that prior shows at Ipswich have been much larger as to the number of entries, in almost every variety the competition this year outvied all preceding ones. The Show of last week was held, not as formerly in the Ipswich Corn Market, but under a couple of excellent tents in the grounds of the Lower Arboretum. This leads to a remark on an arrangement that is worthy of special note as not only adding most materially to the comforts of the birds, but also of everyone who viewed them. Thunder and excessive heat marked the weather, and Mr. Jeffries, the Manager, had very wisely provided an opening in the centre between the two tents, which, whilst acting as a shaft, insuring perfect ventilation and consequent comfort, provided as efficiently against any stress of weather from rain causing injury to the valuable collection on view. The only improvement the most fastidious could suggest was that had the pens been placed a little higher from the ground the general effect would have been improved. A very great change in the prize schedule was a matter of general congratulation. The conventional silver cups given as special prizes were superseded by lock-stitch sewing machines, lawn mowers, poultry coops, garden vases, and vases for table decoration. This change is certainly one that those who have obtained large collection of cups could not fail to appreciate, as we could refer to sideboards the owners of which, being absolutely overburdened with this description of plate, speak as lightly as truly of the utility of such prizes when secured by the score, or perchance the hundred.

The *Buff Cochins* of both sexes were unexceptionably good; so much so, that for general good quality they have rarely been exceeded. Lady Gwyder in the cock class took the first place with a bird truly grand in all points, and possessing the very bloom of high condition, the second and third prizes being also a very close run. Mr. Henry Lingwood's splendid *Buff* hen, however, was the recipient of the special prize in this division,

LAGG.—1, E. H. George, Stamford 2, Mrs. Deasley, Easton.

TRAUST—1, E. H. George. 2, T. Cox, Stamford.
BLACKBIRD—1, J. Griffin, Stamford. 2, C. Toon, Stamford.
ANY FANCY VARIETY.—1 and 2, E. H. George (Magpie and Jackdaw).

RABBITS.

LOP-EARED.—*Duck or Doe*.—1, S. S. Ward, Peterborough. 2, Rev. S. Walters, Stamford.

HIMALAYAN.—*Duck or Doe*.—1, S. Ward. 2, H. Mason.

SILVER-GRAY.—*Duck or Doe*.—1, R. Buffham, Spalding. 2, A. J. Roberts, Hereford.

ANGORA.—*Duck or Doe*.—1 and 2, M. Kew.

ANY OTHER DISTINCT VARIETY.—*Duck or Doe*.—1, R. Buffham. 2, M. Kew.

HEAVIEST (Any breed).—*Duck or Doe*.—1, R. Buffham. 2, Rev. S. Walters.

JUDGE.—Mr. John Douglas, The Aviaries, Clumber, Worksop.

BOSTON POULTRY SHOW.

- This was held on June 30th and July 1st. We must confine ourselves to giving the list of awards, deferring remarks on the classes till next week.

DORKING.—*Cock*.—1, W. Morfitt. 2, C. Wright, jun. *Hen*.—1, W. Morfitt. 2, No competition.

COCHIN (Buff).—*Cock*.—1, W. H. Crabtree. 2, No competition. *Hen*.—1, W. H. Crabtree. 2, R. L. Storey.

COCHIN (Any other variety).—*Cock*.—Plate and 1, W. H. Crabtree. 2, W. Whitworth, jun. *Hen*.—1, W. Whitworth, jun. 2, T. M. Derry.

he, C. Wilson; W. H. Crabtree; H. Beldon.

BRAMA (Light).—*Cock*.—1, P. Haines. 2, M. Leno. *Hen*.—1, W. H. Crabtree. 2, P. Haines.

BRAMA (Dark).—*Cock*.—1, J. F. Smith. 2, C. M. Walte. *Hen*.—1, W. H. Crabtree.

Hen.—1 and 2, W. H. Crabtree. *he*, J. F. Smith.

SPANISH (Black).—*Cock*.—1, H. Beldon. 2, K. Newbitt. *Hen*.—1, R. Newbitt.

2, H. Beldon.

HAMBURGH (Golden-spangled or Pencilled).—*Cock*.—1 and 2, H. Beldon. *he*, J. Ward; G. Hanson. *Hen*.—1, J. Smith. 2, J. Ward. *he*, Piddington; H. Beldon (2); — Hanson.

HAMBURGH (Silver-spangled or Pencilled).—*Cock*.—Plate, 1, and 2, H. Beldon. *Hen*.—1 and 2, H. Beldon.

GAME (Black or Brown-breasted Reds).—*Cock*.—Plate and 1, H. E. Martin.

2, W. Ball, jun. *Hen*.—1, H. E. Martin. 2, No competition.

GAME (Any other variety).—*Cock*.—1, H. E. Martin. 2, — Staveley. *Hen*.—1, — Staveley. 2, W. Ball, jun.

BANTAMS (Game, Black or Brown-breasted Reds).—*Cock*.—1, W. F. Entwistle.

2, J. K. Fletcher. *he*, W. F. Entwistle; F. Steel; W. F. Addie. *c*.—Amderton.

Hen.—1, 2, and c, W. F. Entwistle. *he*, W. Garitt; W. F. Addie.

BANTAMS (Any other variety).—*Cock*.—Plate and 1, J. K. Fletcher. 2, M. Leno.

he, R. H. Ashton; C. Reed. *Hen*.—1, W. F. Entwistle. 2, J. K. Fletcher. *he*, M. Leno.

FRENCH FOWLS (Any variety).—*Cock*.—1, R. H. Ashton (French Cochins). 2, R. A. Boissier (Houdans). *he*, W. H. Crabtree (Creve-Cœur); R. Coney (Houdans).

Hen.—1, R. A. Boissier (Houdans). 2, W. Cutlack, jun. (Creve-Cœur). *he*, W. Cutlack, jun. (Creve-Cœur); W. H. Crabtree (Creve-Cœur); R. H. Ashton.

ANY OTHER DISTINCT VARIETY.—*Cock*.—Plate, 1, and 2, H. Beldon. *he*, T. A. Wright (Black Hamburgs).

Hen.—1 and 2, H. Beldon. *he*, T. A. Wright (Black Hamburgs).

LOCAL CLAS (Any variety).—1, J. W. Riggall. 2, Miss Saddington (Golden-pencilled Hamburgs).

SELLING CLASS.—1, Mrs. M. A. Mason (Silver Poland). 2, J. T. Parker (Black Spanish).

DUCKS (Aylesbury).—1 and 2, W. Ball, jun.

DUCKS (Rouen).—1, W. Dudding. 2, Mrs. M. A. Mason.

DUCKS (Any other variety).—1, M. Leno. 2, J. E. Storr.

GESE.—1, T. M. Derry. 2, — Johnson.

TURKEYS.—1, M. Kew. 2, No competition.

PIGEON NOMENCLATURE.

I HAD almost forgotten the fact that I owed Mr. Lyell several answers relating to the above subject until looking through some back numbers lately. The questions, however, are in some cases unnecessary, as Mr. Lyell may find on referring to my last communication.

A blue Pigeon of a very light shade with black bars, if possessed of the slate shade on the head, flight, tail, &c., and a black tail bar, is a "grey" or "washed-out Blue," and a very ugly-coloured bird to boot. If, however, it have a drab shade over the above parts, and a dun-tail bar, it is a "black-barred Silver." I have seen many of these birds which sometimes possess the tail of an ordinary blue Pigeon, and are then simply a combination of both. That these black-barred Silvers are different all over from the dun-barred Silvers I readily admit, but if the mealy and buff birds were bred and crossed more, the same varieties would occur with them. Mr. Lyell no doubt calls a blue Pigeon, with a tendency to dun or brown in its bars, a "kite-barred Blue," and a properly black-barred Blue simply "blue." If he will therefore be consistent he will call the two varieties of Silver "black-barred Silver" and "Silver." Mr. Lyell can answer his next question for himself if he will take the trouble to inspect some Dun Carriers, that are clean and have their liberty, in the sunlight. He will soon find that the boasted whole colours are, if minutely examined, a myth, as the bar, though of course almost absent, is present, and that while some birds' shoulders are of a beautiful soft even tint throughout, others are chequered. Such birds, however, I willingly pass as "Duns," and dub these "Dun Silvers," which are of a somewhat lighter and dull shade, and have dun bars darker than their shoulders.

And now I wish to address Mr. Lyell on the subject of the Dragoon. The native and natural Persian and Turkish Carriers are described by Aldrovandus and Bechstein as "russet brown" (dun) and "black" respectively, "longish-faced and wattled." These birds having been brought to this country were in some instances bred for certain fancy points, and have gradually produced the Carrier of to-day. In others they were devoted to their proper calling, and when crossed with the blue Tumbler

and native Rock Pigeons, produced the three-quarter-bred Carrier called Horseman or Heavy Dragoon, the half-bred Carrier called Light Dragoon or Dragoon, and the quarter-bred Carrier called Skinnum. These three sub-varieties have gradually degenerated into a handsome Toy of various types, and the difference of opinion amongst the breeders of the fashionable Dragoon of to-day owes its origin to the variety of sources from which their pets have sprung. How any educated man can call the Dragoon "Dragon," simply because the Spitalfields weavers so denominated it, I am at a loss to understand. The slightest reflection will show Mr. Lyell that the name "Carrier," and the name of all the varieties descended from it, with the exception of the Skinnum or Skinner, which was bred by the weavers from the Dragoon, which in their hands was called "Dragon," imply the use of a horse, as witness Carrier, Horseman, Dragoon, Pouter Horseman, Ritter Taube, and Pigeon Cavalier. Whether the word Skinnum be a corruption of "Skinner" I do not know, and I shall be very pleased if anyone will enlighten me on the subject. Dr. Chapuis described the Pigeon Camus divided into two classes—les Camus grands and les petits Camus. These Pigeons, which are evidently the Heavy and Light Dragoon, were, he says, so called on account of the flatness of their wattle. The word "Camulet" would signify the last-named, and I feel certain that the name "Camulet," now applied to the white-eyed red-necked white Pigeon, whose home he designates as at Liège, is simply a corruption of "Camulet," and is altogether misapplied. Dr. Chapuis describes the Pigeon of Antwerp as Mr. Brent does, and states that the variety found at Liège, which I have described above, is called "the Swallow Pigeon" on account of its great powers of flight.

Le Pigeon Cravate Français (the Owl), le Pigeon Camus, and le Pigeon d'Anvers and de Liège produced the Smerle; and the fact that the Smerle is now giving place to birds which are in some instances nearly throughout Light Dragoons, speaks volumes for the powers of the old varieties of Horseman and Dragoon, which are in danger of being "improved off the face of the earth," through the indomitable desire of English fanciers to breed the really useful races of Pigeons as Toys. About ten or twelve years ago the Dragoons of both classes were very plentiful in this district (Cheshire and South Lancashire), and twenty, forty, and fifty miles (all their humble patrons required of them), or in some cases one hundred or even 180 miles were passed over by them. As to good looks they were quite as handsome as the Dragoons now shown. Now they are "few and far between, and the Belgians, varying from the Smerle and Antwerp to the nearly pure Dragoon, are all the rage. If, however, the Carrier were crossed with well-tested Skinnum-faced Belgian birds, and the produce (a tremendous proportion of which would of course be lost) trained, and after a few years again crossed with the Carrier; or if the heavy Belgians were crossed with the Carrier, and their produce treated in the same way as regards training, the Horseman and Dragoon might be reproduced without having recourse to the present pretty race of Toys. The fact that the Mealy-chequered Antwerps are called "red-chequered" in the new book does not prove it correct, any more than the fact of the birds being called "Antwerps" makes them so. They are derived from the Smerle and Barb, and I have seen some which, with a little more eye wattle, if the latter were red and the eyes pearl, would be splendid blue Barbs.—TURKEY QUILL.

WOOD PIGEON AND DOVECOTE PIGEON PAIRED.—My object in writing about this was to throw light on the meaning of the word "acar," and certainly not to impute untruthfulness or ignorance to "T. G.," and when I wrote I had "WILTSHIRE RECTOR's" letter only before me, as I had mislaid the number of the Journal containing the first communication on the subject, and, with "WILTSHIRE RECTOR," I was anxious to see the matter cleared up. I may add that "T. G." does not quote my concluding sentence correctly.—ALMOND TUMBLER.

RE-SWALLOWING HONEY.

WHETHER the nectar of flowers is chemically changed in the honey-bag or other laboratory of the bee previous to being deposited in cells, is a question on which different views have been and still are held. Hunter, Bonner, Polhill, Langstroth, and others expressed a belief that it underwent no change; but Kirby and Spence, Réaumur, &c., maintained that it did.

At the Entomological Society's meeting in February, 1873, a notice was communicated by Mr. F. Smith of recent researches made by Drs. Von Schneider and Von Siebold "on artificial honey obtained by feeding bees exclusively with malt. The question has been raised whether the substance thus obtained was real honey, and whether, consequently, the bee was able to change malt sugar into honey in its stomach." Dr. Von Schneider "arrived at the conclusion that the carbohydrates, sucrose and dextrose, contained in the malt are actually changed by the bee into honey sugar, and that malt honey differs only from ordinary honey in wanting the specific aroma given to the

latter by the flowers on which the bees had been gathering." Professor Von Siebold was also stated, when investigating the secreting organs of the bee, "to have discovered three entirely distinct and very complicated systems of salivary glands with separate excretory ducts."

In the face of such testimony, and without clear evidence to the contrary, it would be presumption to affirm nectar is deposited in combs in exactly the same condition as it is found when gathered. But although changed in some respects, this does not afford any ground for saying it requires to be "swallowed twice" or ten times, to be converted into honey proper. In wet unfavourable seasons honey is poor in quality, and if we take the crude-like product of one hive and feed another with it we shall find, on breaking up the fed hive, that the honey with which it was supplied is still crude, and has not been perceptibly altered by passing a second time through the receptacles of bees.

The experiment of getting supplies direct from the fields for inspection was tried yesterday (June 26th). A frame with empty comb was placed over the central aperture of a stock box during the forenoon, and removed at 2 P.M. As expected, the new honey brought in, when jerked from the cells into a glass vase, was found to be thin and crude, but it was the veritable article. It was almost identical with good honey when mixed with a third part of water. To try the effect of evaporation the new honey was placed under the fierce rays of a burning sun. At the end of two hours it became quite consistent, lacking in no property save aroma. It was sweet and thick, and all that could be desired, flavour excepted, and this admits of explanation.

But as bearing on the subject of "re-swallowing," I may mention that Monday, June 15th, was the first storing day in my district. At that date I had a unicomb observatory hive with stores just exhausted. Foragers went out and brought back loads, many of them going direct to the upper part of the comb, and putting what they had gathered into the empty cells there. These gatherings were carefully watched and scrutinised at intervals both by night and day. No attempt was made to remove them; they remained in the cells where they were first lodged, and as the weather proved favourable, had additions made to them daily. I remarked that sealing did not immediately follow the filling of the cells, and that it took place on the side of the comb exposed to the sun's rays two days sooner than on the side opposite. Whilst the cells remained open I also observed as a constant occurrence a bee dip its proboscis into half a dozen or more cells in succession, and apparently lick up the water which, being lighter than honey, had come to the surface or outside. The amount of water obtained in collecting honey is greater than I imagined, and the quantity doubtless explains why bees are not seen going in summer, as they do in spring, to pools and marshy places for a supply. I am therefore of opinion that "re-swallowing" is not needed for the manufacture of good honey; that proof of the alleged fact is wanting; that the specific gravity of honey tends to bring its watery particles to the front, where they can be evaporated by the heat of the hive or appropriated for use by the bees; and that nectar when collected only requires to have the water separated from it to become rich consistent honey.—R. S.

BEE-KEEPER'S CALENDAR FOR JULY.

In writing a calendar one is always beset with the difficulties and differences of early and late seasons, as well as early and late localities. In 1868 bees were gathering great stores from heather on the 24th of July. Some three years after that year the heather was just bursting into bloom about the 20th of August. Kent, Dorset, and other southern counties of England are much earlier than Lancashire and Cheshire, and these are much earlier than many counties of Scotland. Last year in the north of Aberdeenshire some of the best hives did not swarm till July, and some of the swarms rose in weight to 70 lbs., 80 lbs., and 100 lbs. each. The season there was favourable for honey-gathering; also in the Holderness district of Yorkshire and some parts of Norfolk. In 1842, bees in Middlesex and Hertfordshire continued to store-up honey till the end of September, whereas in most seasons honey-gathering there is over by the end of July. Generally speaking, white clover yields honey until the end of July, and heather up to the middle of September.

In writing this calendar the aim is to give the readers a firm hold of principles, or, in other words, the "why and wherefore," rather than an enumeration of details of management, knowing well that sound principles intelligently understood will make them superior to all the difficulties and exigencies of their apianry.

Where bees are not removed to the moors swarming should not be continued this month, and where they are annually taken to grouse land, swarms may be taken up to the end of the first or second week. Late swarming is objectionable for this reason, that the young queens left in the stock hives are so many days in their cells, and so many days after they are hatched (about three weeks altogether), before they begin to lay, that the honey

season ends before they have bred bees enough for winter. Hence the desirability of preventing late swarming.

Before I come to the various modes adopted to prevent swarming, let me call attention to the importance of examining old stock hives before their young queens commence to lay. Three weeks after their first swarms have left them the combs should be free from brood. A few drone cells may have healthy young brood in them till the twenty-fourth day, but if the centre combs of the hive have a few cells of worker comb unhatched, and these cells have scooped lids, suspect foul brood. Examine thoroughly, and if this disease exists in a hive, the bees should be driven out of it into an empty one. All the healthy brood has been hatched, and foul brood is an incurable distemper which paralyses all the activity of bees. The seasons to examine hives for foul brood are when there is no healthy brood in the combs—viz., three weeks after the old queens leave the hives, and at the end of the breeding season, say September.

Old hives and second swarms are exposed to a danger by their queens going off on their marriage tours when they are but a few days old. Many of them never return. In what way they are lost no one can tell. The swarms that thus lose their queens are thrown into a state of wild excitement, and for some days their loss is manifested by their paroxysms of grief and loud lamentations. Such swarms should be furnished with queens from other hives, otherwise they will dwindle away. When the bees of mother hives and second swarms are seen to kill their drones, the apianian may know that their queens are safe and properly fertilised. Drone-killing generally begins about ten days after young queens have commenced to lay. The general massacre of drones takes place at the end of the honey season.

We now come to notice the various modes of enlarging hives to prevent swarming. In favourable seasons for bees the hives of early swarms and their mother hives, as well as weak stocks that have never swarmed at all, are, generally speaking, well filled early in July, and should then be enlarged by ekes, nadirs, or supers. These, properly used, will prevent bees from swarming, and give them ample scope for building combs to hold both brood and honey. In all hives meant for stock for another year, breeding should now be promoted to the uttermost, for hives filled with brood in July and August will be strong and populous during next winter and spring. Now is the time to lay the foundation of success in 1875.

Eking is the best mode of enlarging hives where run honey is the object sought. Straw ekes or riddle-rims about 4 inches deep, and of the same width as the hives, placed beneath them, make them about one-fourth larger, without any complications whatever. Eking is the most natural and simple mode of enlargement, and the most certain to prevent swarming. When bee-keepers come to know that bees usually gather 6 lbs. in ekes for every 4 lbs. in supers, eking will become more general in England. It is practised extensively in Scotland, where run honey is largely consumed.

Nadiring is now well known to be the opposite of supering. Nadiring is accomplished by placing empty hives beneath full ones, and is adopted to secure both honey and stocks. The bees come through the crown holes of nadirs, and fill or partly fill these with combs, carrying most of the honey into the upper hives. At the end of the season the bees are driven below from the upper hives, which are put down for run honey.

Amongst amateurs, supering is the most popular mode of enlarging hives. Pure honeycomb is the *summum bonum* in bee-keeping to many people. Some letters on the art of supering appeared in this Journal last autumn. They compassed the whole subject, and might be read again at this season of supering with permanent advantage.

Supers of various sizes are made of wood, straw, and glass. Wood and straw supers are cheaper and more convenient than glass. When glass ones are used they should be covered thickly with wool or other materials. A hive or box fitted over a glass super is not enough. Whichever kind is used, and whenever used, the bees should be tempted to enter them at once, and commence work. A bit of guide comb in the top of every super, and a wood ladder to it, will enable the bees to reach the top easily. It should be borne in mind that supers do not always prevent swarming, and often in the hands of inexperienced people they do not even hinder it. Many swarms are lost and hives injured by ineffectual attempts at supering. Drone combs should be used as guides in supers; and all traffic between them and the outside world should be made through the hives on which they are placed—no doorway but one. Only the house-maids with clean feet and pure honey should enter supers. As soon as supers are filled they should be taken off, and empty ones put on. In bar-frame hives the bars of comb filled with honey should be removed, and empty ones put in their places.

Late swarms should be well attended to during the first ten days of their separate existence. Special attention and kindness to them are amply rewarded. A few half-pounds of sugar given at this time enable the bees to build comb rapidly, and as rapidly

fill it with brood. This branch of bee-management is less understood and attended to than many others. It is of the greatest possible importance to the bee-master to keep his swarms in a state of progress. For a little outlay in sugar he will receive in return "good measure pressed down, and running over." In June and July, swarms have a passion for comb-building and hatching brood. The sooner hives are filled with combs and brood the better, for early swarms, ekes, nadirs, and supers are frequently required. Three or four years ago my best swarms filled large hives and supers of 30 lbs. each afterwards.

By the end of this month many bee-keepers will be making arrangements for taking their industrious servants to the moors. The first journey to beginners is often a sad one; combs are shaken down, and the bees smothered. Amongst "The Private Thoughts" of an excellent clergyman, the Rev. Thomas Adams, we find one touching the loss of a cow which died; he wrote these words, "This morning I am a cow poorer but a thought richer." Of how many bee-keepers on their return journey may it be truly said, "They are some hives poorer but a thought richer." All such disasters would be avoided if cross-sticks in hives were used, and thorough ventilation secured. The doors and crown holes should be covered with fly-proof wire, and the hives securely nailed to their boards. Hives thus fastened will travel by road or rail one hundred miles without injury or the loss of a bee.

The harvests of honey gathered on the moors are often very great. Strong hives have been brought home 50 lbs., 60 lbs., and 70 lbs. heavier than when taken; but the wear and tear of such work destroys bee-life to a lamentable extent. We have taken hives with 10 lbs. of bees in them, and with brood from side to side, to the moors; and after gathering 50 lbs. each, they have come home with less than 3 lbs. of bees. Forty thousand or fifty thousand bees per hive have been lost on the heather. How can such an enormous loss of bees be accounted for? Well, when honey is in the flower bees will have it, will risk their lives to get it. In August hives become stored with honey, the space for brood is contracted, less work and fewer bees at home, more outdoors wearing out their lives with hard labour, and exposing themselves to sudden showers which frequently bring them to the ground by thousands. Thus they perish on the altar of their own industry. Some seasons are not so hurtful to hives as others. Mild weather and moderate work are not so destructive to bees; but the hives that are not taken to the moors are, generally speaking, fuller of bees and better for stocks than those that have been there; besides, heather honey increases the mortality of bees during winter; clover honey is more healthful.—A. PETTIGREW, *Salce, Cheshire.*

QUEEN BREEDING IN SUPERS.

LAST autumn one of your correspondents in the north wrote you advising the use of perforated zinc with holes three-eighths of an inch wide between stock hives and supers to prevent the queen bee breeding in the latter. He kindly sent me a pattern of the zinc, and I promised to let him know how it answered with me, but I was taken ill and unable to try it. I am now fitting it to my new frame hives, and should be glad to hear the experience of any of your correspondents who may have tried it, and if there are any objections to its use. I lost a fine super of honey, taken 4th of June, for want of some such preventive of the queen breeding in supers.—A. YOUNG, *APRILIAN.*

OUR LETTER BOX.

POULTRY HOUSE (*Irish Subscriber*).—The space you name (12 feet by 15) would accommodate twenty fowls if they have an unlimited run outside, or if they have a large one. There is plenty of space and air for that number, especially as the house can be ventilated under the roof. If, however, the outside run is limited and confined in space, not more than eight or ten fowls can be kept in such a house. They use it in the daytime much more than they would if it was so significant and so suggestive of space, that we will say we should not consider fowls confined if they had one or two acres to run over, especially if the surface of the ground be a broken one, covered with grass and shrubs. To fit up your house, the door should be in one corner; the perches should be within 24 inches of the ground, and running from side to side of the house, protected from draught by being put away from the door. The flooring must be of earth. It may be hardened by chalk mixed with it; this enables it to be swept with a birch or other hard broom. It should slant from the back every way to the door. The floor should be at least 6 inches higher than the ground on which the house stands. There should be windows for light and air. If glazed, they should be made to open; if made of wickerwork they should have shutters. They require to be open in summer, closed in winter. Glass is best.

GOOD OATS.—The sample of ground oats you have sent is very good. It is such as is used for poultry in the great rearing districts of Sussex. If you refer to our poultry advertisements you will see where the article is to be had and the terms.

UNING BEES BY SMOKING (*A Constant Reader*).—It is rather surprising to hear of bees being unaffected by smoke from both fustian and puff ball. We have never found any that could not be mastered by such smoke, and cannot suggest any reason why your neighbour's bees were not subdued like your own. Perhaps some comb or hindrance at the door prevented the smoke from entering the hive, the bees of which were furious. On one occasion we asked a young man to smoke a hive which we were about to

swarm artificially. He apparently did so, but on turning-up the hive the bees rose like a cloud in our face and stung very severely. The smoke had not entered the hive. When the infuriated bees had settled we took the smoking fustian in our own hands, subdued the bees, and swarmed them quietly enough.

DRIVING BEES (*Obliged Subscriber*).—If the old stock hive has honey enough in it to make it worth while to obtain it, we drive the bees out on the twenty-first day from swarming, whether a second swarm has issued or not. If second swarms have been had, the turn-outs will form smaller swarms, and should be put in smaller hives. The combs will be without brood three weeks after artificial swarming.

SWARM DESERTING ITS HIVE (*Idem*).—The large artificial swarm that remained only twenty-four hours in the hive probably had a queen, and returned to the old hive from caprice. Sometimes swarms are whimsical, and act in a very unaccountable manner. They leave their hives and gladly accept fresh ones. One swarm of ours was hived in three different new hives. It left them all. In your case the queen may have been injured and lost. But drive again if the queen be living, no harm has been done. The one hundred bees that continue in the 20-inch hive were young ones just hatched when driven-up with the swarm. They did not know the way back, and had not sense or power to follow the swarm.

METEOROLOGICAL OBSERVATIONS,

CAMDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W.; Altitude 111 feet.

DATE.	9 A.M.				IN THE DAY.						Rain.
	Baromet- ric at 2 and Sea Level.	Hygrome- ter.		Direction of Wind.	Temp. of Soil at 1 foot.	Shade Tem- perature.		Radiation Temperature		In. On grass	
		Dry.	Wet.			Max.	Min.	In sun.	On grass		
1874.	Inches.	deg.	deg.		deg.	deg.	deg.	deg.	deg.	In.	
June.											
We. 24	29.845	55.7	53.8	S.W.	59.9	66.4	52.3	117.2	51.3	0.060	
Th. 25	29.798	54.0	51.1	S.W.	58.6	69.8	51.5	119.8	48.4	0.010	
Fri. 26	29.655	59.1	55.7	S.E.	59.0	63.3	53.1	87.2	51.2	0.132	
Sat. 27	29.628	56.9	54.7	N.	58.4	71.8	53.4	122.2	52.1	0.020	
Sun. 28	29.697	60.2	56.2	N.	59.8	65.6	52.8	87.8	50.2	0.110	
Mo. 29	29.933	62.7	55.9	S.W.	59.1	70.2	50.8	124.1	48.0	—	
Tu. 30	29.941	66.0	53.9	S.W.	59.2	77.5	56.3	129.0	53.8	0.054	
Means	29.792	60.1	55.8		59.1	69.4	52.9	112.4	—0.7	0.086	

REMARKS.

24th.—Heavy rain in early morning; thunder about 11 A.M., and again at 3 P.M.; fair after 4 P.M.
25th.—Fine morning, but windy; frequent showers at intervals in the afternoon, part of the day, with much wind.
26th.—Dull, cold, rainy, and disagreeable all day.
27th.—Dull morning; showery forenoon; afternoon and evening fine, but rather close.
28th.—Morning fair but dull; forenoon showery; afternoon moderately fine; rain again in the evening.
29th.—Fine morning, showers in the forenoon; fair but rainlike in the afternoon, and rain in the evening.
30th.—Very fine morning, forenoon, and afternoon; hot clouded over with high wind before 6 P.M.
Rain almost daily, and at times rather heavy, but no storms here. Temperature generally above that of last week, but weather much less pleasant.—G. J. SIMONS.

COVENT GARDEN MARKET.—JUNE 30.

BUSINESS remains tolerably firm, and very little change has taken place during the week; the weather, however, has materially influenced the trade in Strawberries, they having been much injured and deteriorated by the heavy rains; the later sorts, however, will be greatly benefited by them. Heavy importations continue of Cherries, Apricots, &c., and especially of Potatoes from the Channel Islands and elsewhere.

FRUIT.

	s.	d.	a. d.		s.	d.	a. d.
Apples.....	1	sieve	0 10 0	Mulberries.....	1	lb.	0 10 0
Apricots.....	2	0	4 0	Nectarines.....	doz.	8	0 18 0
Cherries.....	1	lb.	0 2 6	Oranges.....	1	100	4 0 16 0
Chestnuts.....	1	bushel	0 0 0	Peaches.....	doz.	10	0 21 0
Currants.....	1	sieve	4 0 0	Pears, kitchen.....	doz.	0	0 0 0
Black.....	do.	0	0 0	dessert.....	doz.	0	0 0 0
Figs.....	do.	0	12 0	Pine Apples.....	lb.	4	0 8 0
Fruit.....	1	0	1 6	Pinnas.....	1	sieve	0 0 0
Cobs.....	1	lb.	0 1 6	Quinces.....	doz.	0	0 0 0
Gooseberries.....	quart	0	6 9	Raspberries.....	lb.	0	6 9
Grapes, hothouse.....	lb.	1	6 0	Strawberries.....	1	lb.	1 0 3
Lemons.....	1	100	8 12 0	Walnuts.....	1	bushel	10 0 16 0
Melons.....	each	4	0 8 0	ditto.....	1	100	2 0 2 0

VEGETABLES.

		s.	d.			s.	d.
Artichokes.....	doz.	1	0 6 0	Lettuce.....	doz.	1	0 10 3
Asparagus.....	1	100	3 0 6	Mushrooms.....	pot.	2	0 3 0
Beach.....	0	0	0 0	Mustard & Cress.....	punnet	0	2 0 6
Beans, kidney.....	1	20	0 0	Onions.....	bushel	4	0 7 0
Broccoli.....	bushel	6	0 0	Pickling.....	quart	0	0 0 0
Beet, Red.....	doz	1	0 3 0	Parsley per doz. bunches	3	0 4 0	
Broccoli.....	bundle	0	9 1 6	Parsnips.....	doz.	0	8 1 0
Cabbage.....	doz.	1	0 1 6	Pears.....	quart	1	0 2 0
Capisiums.....	0	0	0 0	Potatoes.....	bushel	3	6 0 0
Cauliflower.....	bunch	6	1 0	Kidney.....	do.	4	0 8 0
Cauliflower.....	doz.	2	0 4 0	New.....	1	lb.	0 0 3
Celery.....	bundle	1	6 2 0	Radishes.....	doz. bunches	1	0 1 0
Coleworts.....	doz. bunches	2	6 4	Rhubarb.....	bundle	0	9 1 0
Cucumbers.....	each	0	6 1 0	Salsify.....	bundle	1	6 0 0
Endive.....	pickling	doz.	0 0 0	Scorzonera.....	bundle	1	0 0 0
Endive.....	doz.	2	0 0	Sea-kale.....	basket	0	0 0
Fennel.....	bunch	0	3 0	Shallots.....	doz.	0	8 0 0
Garden.....	1	lb.	0 0 0	Spinach.....	bushel	2	0 8 0
Herbs.....	bunch	0	3 0	Tomatoes.....	doz.	2	0 4 0
Horseradish.....	bundle	0	4 0	Turnips.....	bunch	0	3 4 0
Leeks.....	bunch	0	3 0	Vegetable Marrows.....	doz.	2	0 3 0

WEEKLY CALENDAR.

Day of Month	Day of Week	JULY 9-15, 1874.	Average Temperature near London.			Rain in 43 years.	Sun Rises		Sun Sets.		Moon Rises.		Moon Sets.		Moon's Age	Clock before Sun	Day of Year.
			Day.	Night.	M.aa.		m.	h.	m.	h.	m.	h.	m.	h.			
9	TH	Bishop Stortford Horticultural Show closes.	74.1	49.4	61.8	18	56	48	14	8	14	0	14	4	25	4	190
10	F	Midland Horticultural Show closes.	74.7	50.3	62.5	16	57	3	13	8	33	0	40	5	26	5	191
11	S	Oxford Term ends.	75.4	50.7	63.0	11	53	3	13	8	10	1	59	6	27	5	192
12	SUN	6 SUNDAY AFTER TRINITY.	75.9	50.5	63.2	14	53	3	12	8	56	1	2	8	24	5	193
13	M		76.1	51.4	63.7	15	0	4	11	8	53	2	49	8	25	5	194
14	TU	Houston died, 1733.	74.5	50.5	62.5	15	1	4	10	8	11	4	21	9	1	5	195
15	W	Royal Horticultural Society, Zonal Pelargonium Show and Committee Meetings.	76.6	50.7	63.7	22	2	4	9	8	30	5	44	9	2	5	196

From observations taken near London during forty-three years, the average day temperature of the week is 75.3°; and its night temperature 50.5°. The greatest heat was 93½°, on the 14th, 1847; and the lowest cold 33°, on the 9th, 1353. The greatest fall of rain was 1.60 inch.

FLOWER GARDENS IN WINTER AND SPRING.

No. 2.



THE first paper upon this subject was devoted solely to the consideration of winter and spring flower-gardening from an economical point of view, and it was clearly shown that a bright and pleasing effect can be imparted throughout the spring to any design of moderate extent by means of annuals alone. Such being my object, I refrained altogether from any mention of bulbous-rooted plants for two important reasons—the first being that an annual outlay for bulbs is inconvenient to many, besides which I was anxious to do away with the very general, but erroneous, impression that bulbs and spring-gardening are inseparable; and the second, that owing to the very brief duration of the blossom of many of the bulbs, they ought not to be planted alone in beds forming part of a small design, or in a conspicuous position, but should be so intermingled with more durable plants that when the fading flowers and foliage are cut off no blemish or blank spaces may be perceptible. So used, bulbs are most desirable, serving as they do by their early-flowering habit to impart life and beauty to a design much earlier in the season than is possible when they are not available.

The rich blue *Scilla sibirica*; Snowdrops; purple, white, yellow, and striped Crocus; and such Tulips as Comte de Mirabeau, white; Canary Bird, yellow; Drapeau de France, rosy lilac; Queen Victoria, white, tinged with rose; Rembrandt, rich scarlet; Couleur Ponceau, pink; Moliere, purple violet, or kindred varieties; with some of the old kinds of Hyacinths, such as Regina Victoria, pale pink; Bouquet, deep red; Sultan Abdul Aziz, striped pink; Lilac Queen; Livingstone, deep purple; Pearl Gem, pale blue; Grand Duc, rosy white; Purity, pure white; would afford ample materials for the plan on page 8.

Where extensive borders are available our selections would be far more extensive, embracing the numerous varieties of Narcissus, Iris, Anemone, Cyclameu, Scilla, Grape Hyacinth, and many miscellaneous bulbs; and as most of these do not require to be annually renewed, I will give a useful selection of a few of the best.

Taking Narcissus first, we have the Spanish N. *Bulbocodium*, which, with its rich golden-yellow cups, is a very beautiful and distinct kind; Sulphur Kroon, with its large yellow and white double flowers; the old favourite and very sweet-scented Double White; the pretty poeticus (Pheasant's Eye); the rich yellow N. *odoratus* and its double form, better known, perhaps, as Queen Anne's Double Jonquil, and the Pseudo-Narcissus or Daffodils, of which there are whole acres of the common yellow form growing wild in Sussex. There are very many other varieties of Narcissus, but as they all range through various shades of white or yellow, to enumerate others would be to puzzle rather than assist.

Of Iris—another extensive class—I may call special attention to the lovely *Iris reticulata*; it has a delicious

perfume, and its flowers are of a deep glowing violet, with blotches of rich yellow on the lower segments, and it is altogether a distinct and most desirable kind. Most of the English, Spanish, and German kinds form valuable border plants; but for early flowering, the very dwarf *Iris persica*, the striking "Great-spotted Iris" (*I. ensiana*), and the pretty little Crimean section, *Iris pumila*, are preferable.

There are few spring flowers at all equal to *Anemone coronaria*, the Poppy Anemone, either for brilliancy or variety of colour; its foliage, too, is particularly elegant, the flexible leafstalks curving gracefully down cause the foliage to form a soft and pleasing foil to the brilliant flowers which, nestling in its moss-like greenery, produce an effect of the most charming description. It is to the single varieties I allude more particularly, the double flowers being neither so durable nor brilliant, and being only desirable for clumps in mixed borders; but the single kinds rank first even for such a position. To see it, however, in perfection, so as to realise its true value, considerable numbers of it must be massed together, in fact a bed or border must be devoted to its sole use and benefit. Its merits from a cultural point of view rank equally high, the plants derived from seed now sown yielding their first flowers in fair quantity next spring, just like an annual, but with this material advantage, that once established it requires very little after-care, thriving best if left in undisturbed possession of the same situation for a course of years. The dry roots procured from the shops, and planted in a rich sandy soil, give flowers in April and May, but they require a second season to develop their full beauty; the drying process to which the roots are of necessity subjected by exposure proving so exhaustive and detrimental that its effects are plainly visible in the ensuing season's growth.

The *Cyclamen* is another fine, but less common, hardy flower, which, from the susceptibility of its roots, is best adapted for rockeries or sloping banks in deep, rich, gritty, well-drained soil. *C. europæum*, *C. Coum*, *C. vernum*, and *C. hederifolium* are the best hardy kinds, the latter thriving well in an ordinary border. Most of them, however, are impatient of cold cutting winds or any great accumulation of water in the soil; but with a little care, most attractive groups of them may be established in any sunny sheltered nook, if the position is sufficiently elevated, by the side of shrubbery walks or other parts of dressed grounds.

First among the *Seillas* is the lovely bright blue *Scilla sibirica*; it is very dwarf, not more than 4 or 5 inches high, and when well established it forms a carpet of the most intense blue. For edgings to beds of *Rhododendrons*, for enamelling patches of rockwork, or for any position where it may remain intact year after year, there is not a more desirable or ornamental plant to be seen in the months of March and April. It also forms a lovely edging in pots for mixed groups in the conservatory. There are other early-flowering kinds, such as *S. bifolia*, *S. amena*, and the varieties of *S. nutans*, all worthy of culture, but none of them are equal to *sibirica*. Follow-

ing these in May and June we have another excellent kind of bolder type in *Scilla peruviana*, with fine blue spikes a foot in height.

The Grape Hyacinth (*Muscari botryoides*) answers well in mixed borders, the singular flower-spikes telling well among others. The compact *Muscari botryoides*, with its white variety the Large Musk Hyacinth (*Muscari moschatum majus*), and the familiar old Feather Hyacinth (*Muscari monstrosum*), are most worth growing.

Here I must pause till another week, when I hope to proceed with my selection, the chief difficulty being not to obtain materials, but to restrict the list as I have done hitherto, and yet not to omit any really choice kinds; for Nature has been so lavish of her vernal treasures, that while taking those we regard as the best, we cannot fail to regret the necessity which compels us to leave many others "out in the cold."—EDWARD LUCKHURST.

MIDLAND COUNTIES HORTICULTURAL EXHIBITION.

JULY 7TH TO 10TH.

THE Royal Horticultural Society's Provincial Show held in Aston Park two years ago seems to have made a lasting impression on the minds of the good people of Birmingham (well it might in one sense, for the downpour on that occasion were something to be remembered), and to have made them desirous of again having a horticultural show on a grand scale; and this they have secured through the energy of the enterprising proprietor of the Lower Grounds, Mr. Quilter, who has in his spirited undertaking received an amount of support from horticulturists that even the most sanguine private individual could scarcely have anticipated. The position and character of the grounds have been noticed from time to time in our pages, and the general arrangements of the Show were given at considerable length in our last week's number; it only remains to say that, instead of staging, turf banks are raised in the plant tents—in the long one next the winter garden, along the sides of a serpentine walk, with a circle in the middle; in the tent for large specimens round the sides, with a large oval centre. Although the Show is not equal to that held under the auspices of the Royal Horticultural Society two years ago at Birmingham, and last year at Bath, it may fairly be said that as regards the present one it has proved a worthy attempt to supply the place of such a show. Unlike the former great Show at Birmingham, this has been hitherto favoured with the finest of July weather, and from the large attendance on the first day we imagine it will prove a financial success. We will now proceed to details, to some of which, however, and to the horticultural appliances, we shall return next week.

STOVE AND GREENHOUSE PLANTS IN FLOWER.—As a rule, those intended for exhibition are at the height of their beauty in May and the early part of June, showing then a freshness and intensity of colour which they seldom present later in the season, and accordingly one does not expect in July so severe a competition as in those months; but even with the encouragement of prizes of £25, £18, and £12, and a twenty-five-guinea silver cup in addition, there are only three collections of sixteen. In the other classes we felt likewise disappointed at the small number of groups. In Class 1, for sixteen, Messrs. E. Cole & Sons, Withington, Manchester, are a long way ahead with a magnificent specimen of *Ixora coccinea*, *Allamanda nobilis*, very fine; *Erica metuliflora* bicolor, 3½ feet in diameter; *Aphelexis humilis* rosea, 4 feet in diameter, and in splendid bloom; *Statice profusa*; *Erica Candolleana*, large and in excellent bloom; *Azalea Chelsoni*; a plant of *Erica Cavendishii* over 5 feet in diameter; *Dipladenia amabilis* with a profusion of its large rosy crimson blooms; *Phæocoma prolifera*, beautifully fresh; *Dracophyllum gracile*, small; *Azalea Brilliant*, 5 feet high and in fine bloom; *Allamanda grandiflora*, with small flowers but an abundance of them; *Statice imbricata*, fine; *Erica Parmentieriana* rosea, and an excellent specimen of *Ixora Colei*, with numerous heads of white flowers. Mr. J. Cypher, Queen's Road Nursery, Cheltenham, has smaller specimens but very well bloomed, the best being *Ixora javanica* floribunda, *Dipladenia amabilis*, *Kalosa thecoccinea*, *Echebaria amazonica*, *Clerodendron Balfourianum*, *Allamanda Hendersoni*, *Ixora amboynensis* and *coccinea*, and *Phæocoma prolifera* Barnesii. The only other competitor is Mr. J. E. Maich, gardener to J. O. Bacchus, Esq., Norwood House, Leamington, who has a collection in which are excellent specimens from 2 to 4 feet high of *Rhychospermum jasminoides*, *Dracophyllum gracile*, *Dipladenia amabilis*, fine; *Clerodendron Balfourianum*, *Franciscia calycina* major, and *Hoya carnosus*, which, however, from the pedulous character of its flower-heads, beautiful though they are, is not an effective exhibition

plant. The first prize and the silver cup were awarded to Messrs. Cole, the second to Mr. Cypher, and the third to Mr. March.

In Class 2, for nurserymen (ten plants), Mr. Perkins, Leamington, has a remarkably fine plant of *Statice profusa*, *Allamanda Hendersoni* bearing an abundance of large flowers, *Cassia corymbosa* in splendid bloom, *Vinca oculata*, *Kalosanthea coccinea*, and *Pauferatum maritimum*. Mr. Cypher sends *Allamanda nobilis*, fine; *Hemanthus magnifica* with ten of its orange-scarlet heads, *Dipladenia amona*, and *Ixoras*. Messrs. Cole, however, have the best collection, the plants well grown, and for the most part in splendid bloom. *Allamanda Hendersoni*, *Aphelexis macrantha* purpurea and rosea, *Erica Parmentieriana* rosea, and *Azalea Brilliant* are the most noteworthy. Messrs. Cole are first, Mr. Perkins second, and Mr. Cypher third. In the corresponding class for amateurs Mr. W. Chapman, gardener to J. Spode, Esq., Hawkesyard Park, Rugeley, is first with splendid specimens of *Clerodendron Balfourianum*, *Erica Parmentieriana* rosea, *Statice profusa*, *Erica Candolleana*, *Phæocoma prolifera*, *Ixora javanica*, and *Anthurium Scherzerianum*. Mr. E. Chadwick, gardener to C. Nelson, Esq., Crackley Hill, Kenilworth, is second with, among others, good specimens of *Dipladenia amabilis* and *Allamanda Hendersoni*.

The best single specimens of stove plants exclusive of Orchids are *Dipladenia amabilis*, exhibited by Messrs. E. Cole & Sons, covered with a rich profusion of its splendid flowers, and forming one of the most brilliant objects in the Exhibition; and *Stephanotis floribunda* from Mr. J. Webb, gardener to J. Gulsan, Esq., Stoke, Coventry. This, like the other, is remarkable for its health and abundant bloom. Equal first prizes were awarded; the second going to Mr. B. S. Williams, of Holloway, for a fine *Anthurium Scherzerianum*. The best specimen greenhouse plant comes from Mr. B. S. Williams, of Holloway, and is a good specimen of *Phæocoma prolifera* about 3 feet in diameter. Mr. Parker, nurseryman, Rugby, is second with *Statice profusa*; and Mr. Chadwick, gardener to C. Nelson, Esq., third.

FINE FOLIAGED PLANTS.—There is a liberal display of these, though in many cases the plants are by no means remarkable for size. In the nurserymen's class for nine, Messrs. Cole & Sons are first with grand specimens of *Phormium tenax variegatum*; *Cycas revoluta*, with a spread of fully 10 feet; *Croton pictum*, *Dasyliroth gracile*, *Cocos Weddelliana*, probably the finest specimen in the country; *Eurya latifolia* variegata, *Croton variegatum*, *Yucca aloifolia* variegata, *Cyathea dealbata*. Mr. B. S. Williams, of Holloway, who is second, has in his collection a noble specimen of *Livistona borbonica*, *Croton longifolium* and *pictum*, both very fine specimens; magnificent plants of *Gleichenia spelnucæ*; the Bird's-nest Fern, about 7 feet across; a large plant of *Sarracenia flava*; and a fine specimen of *Dasyliroth acrotrichum*. An extra prize was awarded to Messrs. Felton & Son, Edgbaston, for a group in which there is a charming plant of that beautiful Fern, *Todea superba*. Mr. W. E. Dixon, Norwood Nursery, Beverley, also takes an extra prize; and one was likewise awarded to Mr. E. Pilgrim, of Cheltenham, for a good group in which *Euphephartos villosus* is especially noticeable. In the amateurs' class for the same number a group is shown by Mr. Brown, gardener to Mrs. Alston, Elmdon Hall, who has good specimens of *Maranta Veitchii*, *Alocasia Lowii*, *Croton interruptum*, &c. Another group, consisting of large specimens, comes from Mr. Foster, gardener to E. Greaves, Esq., Avonside, Warwick, who has *Cycas revoluta*, *Alocasia intermedia*, *Crotons*, *Areca Verschaffeltii*, *Stevensonia grandifolia*, and an excellent example of *Euphephartos villosus*. From T. M. Shuttleworth, Esq., Howick House, Preston, comes the first-prize group, Mr. Foster being second; in this *Croton undulatus* is specially striking by the richness of its colouring; *Gleichenia spelnucæ*, *Cyathea Dregei*, *Cocos Weddelliana*, and *Dasyliroth gracile* are also noteworthy. Mr. Brown takes the third prize. In the nurserymen's class for six both Mr. Williams and Messrs. Cole contribute; the former sending fine specimens of *Croton Weismanni* and *interruptum*, *Cordyline indivisa*, *Pandanus Veitchii*, and *Latania borbonica*. Mr. Cypher likewise sends a group. Among amateurs, prizes were awarded to Mr. J. March, gardener to J. O. Bacchus, Esq., and Mr. Brown, Elmdon Hall Gardens.

Prizes were offered for the best single specimens of fine-foliaged plants. The first went to Mr. Heath, College Nursery, Cheltenham, for a noble plant of *Cycas revoluta*; the second to Mr. Croucher, gardener to J. Peacock, Esq., Hammeramith, for *Pandanus Veitchii*, *Cissus discolor* being third. The best six *Dracenas* come from Mr. Brown, gardener to Mrs. Alston, Elmdon Hall, and include good examples of *D. ferrea*, *Shepherdii*, *regiæ*, and *Mooreana*. For the best specimen *Croton* Messrs. Cole are first with a well-coloured example of *C. angustifolium*; Mr. Heath, Cheltenham, second with *C. variegatum pictum*; and Mr. Chapman, Hawkesyard Park, third with a fine bushy specimen of *C. variegatum*.

FERNS AND LYCOPONS.—Ferns are numerous shown, stove and greenhouse species in particular being well represented. Of the latter, in the nurserymen's class for eight, Mr. Williams, of Holloway, is first with a group in which are fine specimens

of *Thamnopteris nidus*, *Gleichenia rupestris* and *flabellata*, *Cibotium regale*, and *Adiantum farleyense*. Mr. Cypher, of Cheltenham, is second with *Cibotium regale* and princeps, *Adiantum farleyense*, and others. In the amateurs' class, T. M. Shuttleworth, Esq., Howick House, Preston, is first with very fine examples of *Leucostegia immersa*, *Gleichenia rupestris* and *flabellata*, *Adiantum farleyense*, and good plants of *Cyathea Smithii*, *C. dealbata*, and *Dicksonia fibrosa*. Mr. Coleman, gardener to W. Bayliss, Esq., Walsall, is third. For single specimens of tree Ferns there are two classes, one for nurserymen and the other for amateurs. The best in the nurserymen's class is a grand specimen of *Dicksonia antarctica*, shown by Mr. Williams, occupying the centre of the circle in which Messrs. Jackman's group of *Clematis* is placed. Mr. Vertegans, Chad Valley Nurseries, is third. The best specimen in the amateurs' class is also *Dicksonia antarctica* from Mr. Jones, gardener to C. E. Matthews, Esq., Edgbaston. Mr. Williams likewise sends the best specimen stove or greenhouse Fern, *Adiantum* being excluded, in *Cyathea Burkei* with a 6-feet stem. Mr. Parker, of Rugby, is second. Of specimen *Adiantums* there are fine plants of *farleyense* from Messrs. Cypher, Williams, and Cole and Sons.

Lycopods are few and disappointed us, though well grown. Mr. Webb, gardener to J. Gulsou, Esq., Stoke, Coventry, is first. The second prize goes to Mr. R. Allan-Moseley, and the third to Mr. W. Jones.

In the class for twelve hardy Ferns, J. E. Mapplebeck, Esq., Woodfield, Moseley, Birmingham, is first with fine well-grown specimens of *Athyrium Filix-femina tortu-cristatum*, *coronatum*, *apumforme*, *Elworthii*, and *Pritchardii*, *Osmunda regalis cristata*, *Polystichum angulare cristatum* Jacksoni, and *Lastrea Filix-mas grandiceps*. He also exhibits numerous collections of new and rare British Ferns. Mr. E. Pilgrim, nurseryman, Cheltenham, who is second, has among others a fine case of *Trichomanes radicans*. Messrs. Ivory & Sons, of Dorking, are third.

PALMS.—The most noteworthy in the class for six, size of pot not limited, are those from Mr. Williams, comprising noble examples of *Livistona borbonica*, *Chamærops Fortunei*, *Stenersonia grandifolia*, *Areca lutescens*, and a fine plant of *Cocos Weddelliana*. Mr. Croucher, gardener to J. Peacock, Esq., Hammersmith, comes second with good specimens of *Dæmonorops palembanica* and *periacanthus*, *Areca rubra*, and *Calamus fissus*. Mr. Pilgrim, of Cheltenham, has among others *Welfia regia*, very effective by its red young fronds. Mr. J. March, gardener to J. O. Bacchus, Esq., is third. Palms in small pots suitable for the dinner table are well shown. Messrs. Felton have a pretty group. *Cocos Weddelliana* and *Dæmonorops marginatus* are truly graceful. Mr. E. S. Williams and Mr. J. Cypher also compete.

PITCHER PLANTS, including *Sarracenias*—The show of these is more numerous than could have been expected, and very good. T. M. Shuttleworth, Esq., is foremost for three—*Nepenthes Hookeri* and *Rafflesiana* finely pitcherled, and an unnamed *Sarracenia*. Mr. Williams comes second with *Nepenthes phyllanthophora*, and *Sarracenia flava* and *purpurea*. He is also first for the best specimen with *Nepenthes Rafflesiana* with seventeen large pitchers, and Mr. Shuttleworth is second with *Sarracenia Drummondia alba*, past.

HEATHS, with the exception of the single specimens, are very poor. The first prizes in the nurserymen's and amateurs' classes go to Mr. Dixon, Norwood Nursery, Beverley, and Mr. W. Chapman, of Hawkesyard Park. For single specimens Messrs. Cole are first with a splendid plant of *Erica venosa* some 3½ feet in diameter, and Mr. Williams second with *Erica obbata* as large, but not so full of bloom. Mr. J. Foster, gardener to E. Greaves, Esq., Avonside, Warwick, is third. Mr. Cox, Madresfield Court, has a large well-bloomed plant of *Erica tricolor* Wilsoni.

ORCHIDS.—There is not a large show of these, but those from Mr. Williams are such as well maintain his reputation as an exhibitor of these plants. He is first in the open class for ten, and also in the nurserymen's class for six (Mr. Dixon, Beverley, being second), with splendid plants of *Anguloa Clowesii*, fine pans of *Cypripedium barbatum superbum*, *Vanda tricolor* in several varieties, *Lælia purpurata*, *Aërides odoratum majus*, affine, *superbum*, and *Lobbi*; *Disa grandiflora*, *Cyrtocidium stellatum* with a score of spikes, *Vanda suavis*, and a pot of *Epidendrum vitellinum*. Mr. Mitchell, gardener to Dr. Ainsworth, Broughton, Manchester, has *Cattleya Mendelii*, five; *Odontoglossum Schleiperianum* with nine large pale yellow flowers, *O. grande*, *Vanda suavis*, and others. Mr. Mitchell is first in the amateurs' class for six, whilst Mr. Williams sends as the best specimen Orchid a magnificent plant of *Aërides odoratum majus* with twenty-three racemes.

CLEMATIS.—There are only two groups worthy of note. That from Messrs. Jackman, of Woking, is literally and truly a centre of attraction, occupying as it does a circle in the centre of the tent by the side of the conservatory, and the plants themselves proving incontestably that grand effects the new varieties are capable of producing both indoors and out. The group consists

of Jackmanni, magnifica, Mrs. James Bateman, remarkably fine; lanuginosa nives and candida, Thomas Moore, Lady Bovill, Alexandra, Rubra grandiflora, Rubella, and Lady Caroline Nevill. These are trained nearly in a cylindrical form, and some of the plants are so covered with flowers that but little of the foliage is to be seen. Mr. Vertegans is second.

PREMIAS.—The best four come from Mr. W. Cox, gardener to Earl Beauchamp, Madresfield Court, and consist of nicely-bloomed plants about 4 feet high, consisting of Victor, double, dark corolla; Maid of Honour, white corolla, scarlet sepals; Margioata, white sepals; and Marksman, double, dark corolla. Mrs. Brown, North Street, Rugby, is second. The first-prize collection of nine is also well flowered, especially Rose of Castille, Senator, Puritani, and Roderick Dhu. We could not ascertain the exhibitor's name, as indeed those of several others. The second prize went to taller plants, but not so well flowered, from Mr. Harborne, of Smethwick; and the third to Mr. Coleman, gardener to W. Bayliss, Esq., Walsall.

PELAGONIUMS.—Of the Show kinds Mr. Turner, of Slough, has a beautiful collection of twenty of not less than twelve varieties. The plants, of course, in such a class are not expected to be of the great dimensions of those shown in classes where a less number of plants is required, but these are of good size, and in fine bloom. The best in this respect are Scottish Chieftain, Achievement, Ruth, Warrior, Blue Boy, Conquest, Sunray, Protector, Corsair, and Highland Lassie. A first prize was awarded; and Mr. Turner is also first for nine, with Blue Bell, W. Bull, Mary Hoyle, Prince of Prussia, Rosicrucian, Prince Leopold, Pericles, King Charles, and Conquest. Mr. Quarterman, gardener to T. Gladstone, Esq., and Mr. J. E. March take the remaining prizes. Mr. Turner is also first for six, and Mr. Quarterman second. In Fancies the prizes go to the last named, Mr. Turner, and Mr. H. Coleman, but the specimens are by no means noteworthy.

In nine Zonal Pelargoniums Mr. March, gardener to J. O. Bacchus, Esq., stands first with finely-bloomed well grown plants of Clipper, Blue Bell, Virgo Marie, Rebecca, Rosemond, President Revell, Madame Vaucher, and Amelina Grisan. Mr. Cox, Madresfield Court, is second with Vesuvius, La Fontaine, Oscar, and others in fine bloom; and Mr. Quarterman is third. The best six double Pelargoniums come from Mr. Parker, Rugby, and consist of beautifully-bloomed specimens of Marie Lemoine, Madame Lemoine, Gloire de Nancy, Victor Lemoine, Marie Crousse, and W. Pfitzer. The first prize for Bronze Pelargoniums goes to Mr. R. Allen; the second to Mr. J. Newton, Rose Cottage, Shirley. Tricolors are finer than we have ever seen them in London. Mr. E. Ford, Baginton Hall, Coventry, has six splendid specimens. Gem of Tricolors in his collection is a glorious plant; so is Jock o' Hazeldean in the second prize lot, which comes from Mr. J. E. March, of Norwood House, Leamington.

SUCCULENTS.—For a collection of twenty-five Mr. J. Croucher is first, and exhibits some pretty specimens of *Haworthia papillosa*, *H. corallina*, *H. pentstemonifolia*, *Stapelia*, *Aloes*, &c. Mr. Pfersdorff, 73, South Row, Kensal New Town, is second.

CACTI.—For a collection of twenty-five Cacti Mr. J. Croucher is again first, and most curious and interesting are the specimens he exhibits—*Mammillaria bicolor cristata*, *M. Wildiana*, *M. Shiedesana*, *M. Muhlenfortii*, a perfect ball of regularly-placed spines. Altogether he has ten species of *Mammillaria*, four of *Pilocereus*, nine of *Echinocactus*, and *Cereus chilensis*. Mr. Pfersdorff is second. Mr. Croucher also exhibits *Echeveria Peacockii*; it is in the way of *E. pulverulenta*; but the glaucous leaves retain the white coating much better, and the whole plant is neater in appearance; a first-class certificate is given to it.

AGAVES.—For groups of Agaves, Mr. Croucher is again first, and Mr. Pfersdorff is second; a third prize goes to Mr. E. Pilgrim.

MISCELLANEOUS.—Of new plants Messrs. Veitch contribute a very extensive and fine collection, in which are included most of the plants sent out by the firm of late years, as well as some of their latest novelties. Among them may be mentioned *Croton Youngii* and other new species; *Adiantum Zahnii*, *Ocimum stelligerum*, *Anthurium crystallinum*, *Adiantum Zahnii*, new Pitcher-plants, *Gloxinias*, &c. Mr. Williams, of Holloway, also sends a numerous group. Messrs. Standish & Co., of Ascot, contribute a basketful of a pretty golden variegated Yew, *Taxus fastigiata aurea*. To new plants, as well as to some other subjects, we shall advert next week. Mr. Vertegans, of the Chad Valley Nurseries, Birmingham, and Promenade Gardens, Malvern, contributes two nicely-arranged groups not for competition, composed of *Lilium auratum*, Palms, and a variety of fine-foliaged plants. These are placed at each end of the Rose tent, and near them Messrs. Dick Radcliffe & Co. exhibit Fern cases, &c., in variety.

CUT FLOWERS.

HAVING attended most of the Rose shows this season, beginning with the Crystal Palace on June 22nd, and ending now with Birmingham on July 9th, I have no hesitation in saying that the one now being held at the Grounds, Lower Aston, under

Mr. Quilter's anspices, is the very best that has been held this year. Yet when this is said it must be borne in mind that this is not a Rose year. That there are many most beautiful flowers staged is true, but that many of our exhibits are not up to the mark, and many of our growers nowhere, are facts patent to anybody; and I may just instance two cases that have come under my own cognisance. Most of us know how excellently Mr. J. N. Baker, of Haverhill, Exeter, has shown for many years, and what a prominent place he has held in the prize lists. I saw his garden last week, and a more sad example of blighted hopes and blighted Roses I never saw. Not even Miss Jemima, who was crossed in love in her early days, and looks ever afterwards as if she were a crust of super-refined vinegar, could excel it. When I say that hundreds upon hundreds of Roses were literally dead and dying, and that the whole space devoted to them was only here and there relieved by some good plants on the seedling Briar, I am bearing a correct testimony and giving some idea of what a spring of sharp frosts and violent winds will do. Then there is the case of our valiant friend Keynes, of Salisbury, the veteran conqueror in many a hard-fought field. We have all complained of want of rain, but Salisbury seems especially to have been left unwatered, and for three months hardly a drop of rain fell. It may then be wondered at, taking into account the other disturbing elements of the season, that he should have been able to exhibit at all; and hence it happens that many, very many Roses, although fine are not in their true character—wanting, if I may so say, in that refinement which is one great charm in the Rose.

ROSES.—And now to the show of Roses. For the first prize, the challenge vase and a prize of £10, there are eight entries, and after a long and laborious investigation by the Judges, the first prize is awarded to Messrs. Paul & Son, of the Cheshunt Nurseries, his box of seventy-two containing some very fine blooms. And here let me say I do not intend to give complete lists, as I think this is unnecessary, but shall merely notice those which most struck me, amongst which were Baron Hausmann, Marquise de Castellane, La France, Dr. André, Mons. Noman, Mons. Boncenne, dark; Ferdinand de Lesseps, which I have seen very good this year; Henry Leslie, a very pretty seedling; Souvenir d'Elise Vardon, exquisite; Madame Thérèse Levet; Louis Van Houtte, a grand bloom; Catherine Mermet, very beautiful; Alfred Colomb, Horace Vernet, Beauty of Waltham, and Wilson Saunders, another seedling in the way of Charles Lefebvre. Mr. B. Cant, of Colchester, is a good second, running Messrs. Paul very close. Maréchal Niel, Marie Baumann, Niphetos, Duc de Wellington, Etienne Levet are conspicuous in his stand. Mr. Cranston, of Hereford, is third with Jean Sany, a remarkably fine flower very little known; Julie Touvais, Marie Baumann, Niphetos, Madame G. Schwartz, Duke of Edinburgh, and Madame V. Verdier. Mr. Charles Turner is fourth.

In the class for forty-eight, three trusses of each, Messrs. Paul and Son are again first. Here again Baron Hausmann, Etienne Levet, Marie Baumann, La France, Mons. Noman are very fine; and so in the second stand, Mr. Cranston's, are Jean Cherpin, beautiful in colour; Claude Million, Perle de Lyon, Maurice Bernardin, and John Hopper. In the third, which is creditably won by Mr. J. Keynes, are Claude Levet, very good if full enough; Devonienais, Xavier Olibo, Mdlle. Eugénie Verdier. Mr. Turner, of Slough, is an excellent fourth.

In the class for twenty-four, Hybrid Perpetuals only, Messrs. Paul & Son are again first, Mr. Cant second, Mr. Prince, of Oxford, third, and Mr. Perkins fourth. In the class for twenty-four single blooms Mr. James Merryweather is first, Mr. Cant second, Mr. Prince, of Oxford, third, and Mr. Turner fourth.

Amateurs come out very strongly, and I am not quite sure whether the box of forty-eights which wins the challenge cup for amateurs is not the best in the Show; it was awarded to Mr. Saitte, gardener to the Rev. E. Evans, Solihull, thus keeping up the distinction which the rectory gardens formerly held under the fostering care of the Rev. S. Smythe. Amongst the most noticeable flowers are Baroness Louise Uxkull; Paul Neron, too coarse; Maurice Bernardin, very grand; Charles Bernardin, Perle Blanche, Prince de Porcia, Baron A. de Rothschild, Etienne Levet, Mdlle. Marie Raby, Duc de Cazes, Fisher Holmes, La Motte Faignine, Madame Victor Verdier, Comtesse de Chabillant, Comte de Nanteuil, François Michelin, Edouard Morren, Antoine Ducher, Charles Turner, Lyonuais, and La France. Mr. Draycott, gardener to Sir B. Cunard, is second; the Rev. G. Arkwright is third; and Mr. Draycott, gardener to T. T. Paget, Esq., fourth. In the class for forty-eight Roses, single trusses, Mr. Evans, gardener to C. N. Newdegate, Esq., takes first prize with a nice box, amongst which are Charles Lefebvre, Emilie Hausburg, Alfred Colomb, Laurent Descourt, Duke of Wellington, Maréchal Vaillant, Sénateur Vaisse, Lelia, and Comtesse d'Oxford. The second goes to Mr. Parnell, Birchfield, Rugby; and the third to Mr. Draycott, gardener to Mr. Paget. In the class for twelve Roses the first prize is won by Mr. Brown with Antoine Ducher, Emilie Hausburg, Paul de la Meilleray, Marquise de Castellane, extra fine; Maréchal

Vaillant, Baronne Rothschild, Olivier Delhomme, Impératrice Charlotte, &c. Mr. Parnell is second, Mr. Evans third, and Mr. Saitte fourth.

The class of new Roses brings together four or five competitors. The first prize is awarded to Messrs. Paul & Son for Princess Beatrice, Etienne Levet, Hippolyte Jamin, Barocess Louisa Uxkull, Henry Leslie, Annie Laxton, The Shah, seedling, very brilliant in colour; François Michelin, André Duhaud, Reynolds Hole, very dark; Cheshunt Hybrid, and Madame Lacharme. Mr. Cant is second with Mrs. Laing, peculiar violet colour; Madame Prud'homme, Madame de Pulhat, L'Esperance, Madame Lacharme, Etienne Levet, Madame Caroline Kuster, Richard Wallace, Auguste Rigotard, Reynolds Hole, Annie Laxton, and Bessie Johnson.

In the class for twelve Tea-scented and Noisette Roses (nurserymen), Mr. Cant wins first prize easily with Madame Willemoz, Maréchal Niel, Souvenir d'on Ami, Rubens, Niphetos, Marie, Devonienais, Madame Caroline Kuster, Triomphe de Rennes, Perle de Lyon, and two others. In the same class (amateurs) Mr. Evans, gardener to C. N. Newdegate, Esq., is first with good blooms of Céline Forestier, Niphetos, Rubens, Comte de Paris, Madame Bravy, &c.; and Mr. Arkwright second.

In the class for the best six Roses of any variety of 1871, 1872, and 1873, Mr. Cranston is first, Messrs. Paul & Son second, and Mr. Cant third, all with blooms of Etienne Levet—a high honour for the Rose, but then I think it is an Etienne Levé year. In the class for twelve Roses, single blooms, a class the *raison d'être* for which I cannot understand, the first prize goes to Mr. Charles Turner for Nardy Pières, Alfred Colomb, Madame Lacharme, Souvenir de M. Boll, John Stuart Mill, Souvenir de la Malmaison, Baronne Rothschild, Edouard Morren, La France, Horace Vernet, Duke of Edinburgh, and Etienne Levet.

The two prizes for Alfred Colomb, twelve blooms of each, are won by Mr. Charles Turner and Mr. Cant, with fine blooms. For twelve blooms of Duke of Edinburgh Mr. C. Turner is first, Mr. Cant second. For twelve trusses of Baronne Rothschild Mr. Cant is again first, and Messrs. Paul & Son second with by no means first-rate blooms. Only one box of twelve La France is exhibited, and these are very poor. For twelve trusses of Marie Baumann (very exquisite), Mr. Prince, of Oxford, is first, and Messrs. Paul & Son second. For twelve trusses of Maréchal Niel, Mr. Cant is first, and the Rev. Mr. Benn second; and for twelve blooms of Devonienais Mr. Cant is again first, with a most exquisite stand of this lovely Tea. It will thus be seen that the Rose Show is very extensive, and far in advance of any that have been held this year.

PINKS, CARNATIONS, AND PICOTEES.—The time is rather awkward for Pinks, Picotees, and Carnations—too late for the first, and too early for the last; yet some good stands of both are exhibited, especially by Mr. Charles Turner, of Slough. His Pinks comprise Dr. Maclean, Dr. Masters, Shirley Hibberd, President, Superb, H. Hooper, Princess of Wales, Beatrice, and Aurora. Mr. Burn is second, and Mr. Hooper, of Bath, third. In Picotees, Mr. Turner is again first with Prince of Orange (yellow), very fine; Miss Sewell, Prince of Wales, Picco, seedling; Rev. H. Matthews, rose edge; Fearless, Miss Ward, Miss Small, Mrs. Fordham, very fine; Eugénie, and Mrs. Fisher. Mr. H. Hooper is second. Amongst his flowers his own very fine seedling, Mrs. Little, is conspicuous, certainly the clearest and most beautiful flower in its class. Mr. Catley is third. Mr. Turner is also first in Carnations with Mara, Ajax, Gem, Squire Meynell, Sybil, Brutus, Favourite, Sarah Payne, James Merryweather, Guardsman, Esther, and Admiral Curzon. Mr. Hooper is second, and Mr. Catley third.

TABLE DECORATIONS, &c.—There is no department of an exhibition where greater grumbling at the decision of the Judges arises than at the Table Decorations and Bonquets, and this Show is no exception to the rule. However, I have but to record results. There are some very beautiful hand-bouquets exhibited. The first-prize one is especially beautiful; it consists of blooms of *Pancretrium* interspersed with *Disa grandiflora*, *Spiraea*, *Forget-me-not*, white *Campanula*, a dark Rose or two, and *Maidenhair Fern*. This is won by Mr. Perkins, of Leamington; the second by Mr. W. Jones; and the third by Mr. J. Jackson. In the class for ball-bouquets Mr. Perkins is again first with a beautiful bouquet consisting of *Pancretriums*, Orange flowers, *Dracophyllum*, &c. Mr. C. Turner, of Liverpool, is second. In the class for three pieces for table decoration (to the exclusion of fruit), Mr. C. Cooke is first with stands prettily arranged—the usual modification of the March stand, having the tall vase above the two flat receptacles for flowers, and the lower one raised a little above the table. Mr. Jackson is second, and Mr. Cypher fourth. In the class for one centrepiece there are some pretty stands, but nothing that calls for any special observation; while in the class for button-hole bouquets Messrs. Pope & Son are first with buds of yellow Roses, *Bouvardias*, and *Maidenhair*. Mr. Bones second.

Let me add that the tent in which the Roses are exhibited is a very fine one, and that there is every opportunity of their being

well seen, although one regrets to find so many defaulters, there being space enough provided for double the quantity of exhibits. —D., *Deal*.

FRUIT.

THE entries in this department were unusually numerous, and an abundant space was accordingly allotted for the different classes. Many of those who entered did not, however, put in an appearance, so that the tabling has a scantily furnished appearance. Some of the more experienced exhibitors are of opinion that publishing the number of entries previous to the Exhibition is a mistake, as it has the undesirable effect of frightening the more timid exhibitors. The fruit is exhibited in a glass-covered house, and arranged on a staging elevated in the centre, the staging at the sides being devoted to table decorations, bouquets, &c.

PINE APPLES.—On the elevated centre of the staging devoted to fruit are arranged the Pines, seventy in number, and divided into four classes. In Class 88, two Queen Pines, there are eleven exhibitors, the competition being very close. The first prize was awarded to Mr. J. Harris, gardener to Mrs. Vivian, Singleton, Swansea; the weight is not stated, but it must be between 5 and 6 lbs. each fruit. Second comes Mr. T. W. Bond, gardener to G. A. Smith, Esq., Weybridge, Surrey. Third is Mr. C. Sandford, gardener to the Earl of Bective, Kirkby Lonsdale. Of two Smooth-leaved Cayennes Mr. D. Wilsoo, Castle Hill, South Moulton, is the only exhibitor, and has a first prize for fine fruit, well ripened. In the class for Any other variety, five exhibitors misunderstood the terms of the schedule, and staged Queens and Smooth-leaved Cayennes. One exhibitor, Mr. A. Bruce, gardener to J. Tildesley, Esq., Edge Lane, Manchester, has a nice ripe fruit of Prince Alfred, and gains the first prize. For six fruits, not necessarily distinct, Mr. J. Harris is first with well-swelled and beautifully-ripened Queens. Mr. T. W. Bond is second with the same variety, and Mr. D. Wilson third with Queens and two Smooth-leaved Cayennes.

GRAPES.—There are thirteen dishes of Black Hamburgh Grapes; many of them are remarkably well finished, and several worthy of a first prize had to be passed over. Mr. W. Coleman, gardener to Earl Somers, Eastnor Castle, Leicestershire, is first with very fine bunches, large in berry and well finished. Mr. R. Fleming, gardener to R. Houghton, Esq., Waterloo, Liverpool, is second; and Mr. J. Douglas, gardener to F. Whitbourn, Esq., Loxford Hall, Ilford, third, it is needless to say, with fine well-finished bunches. For three bunches of any other black variety Mr. W. Sweeting, gardener to T. Y. Venn, Esq., is first with Venn's Seedling Black Muscat. This is a good black Muscat. The fruit seems to set well and colours well. The second prize went to Mr. M. Henderson, Cole Orton, Gardens, Ashby-de-la-Zouch, for Black Mammoth.

Of three bunches of Muscat of Alexandria there are three exhibitors. Mr. J. Foster, gardener to E. Greaves, Esq., Warwick, is first; Mr. W. Cox, Madresfield Court, Great Malvern, is second; and Mr. J. Haynes, Millichope Park, Church Stretton, is third. The first-prize bunches are remarkably well ripened. In the class for three bunches of Buckland Sweetwater there are three entries. Mr. W. Cox has large bunches and berries, and gains the first prize; Mr. Douglas is second with well-ripened bunches, and Mr. J. T. Cushon, gardener to W. Willy, Esq., third. For three bunches of any other white Grape Mr. Douglas is first with the best bunches of Golden Champion we have yet seen exhibited. As seen like these, this is one of the best of White Grapes. Mr. W. Coleman is second with White Frontignan.

Collections of six varieties. Here the competition is very close, some of the most successful exhibitors of Grapes contesting for the prizes. Mr. J. Douglas comes in first with well-ripened Muscat of Alexandria, Black Hamburgh, Golden Champion, Royal Ascot, Buckland Sweetwater, and Loxford Hall Frontignan. Mr. M. Henderson is second, and Mr. Bannerman third.

PEACHES, NECTARINES, AND APRICOTS.—Mr. G. T. Miles, gardener to Lord Carington, Wycombe Abbey, Bucks, is first with fine Royal George; Mr. Bannerman, gardener to Lord Bagot, Blithfield, Rugeley, second with the same variety; and Mr. G. Jackson, gardener to J. Tyrer, Esq., Tiscall Hill, Stafford, is third with Violette Hâtive; these are also very fine. Twenty dishes are staged. Of six Nectarines there are thirteen competitors, and equal first prizes are awarded to Mr. Bannerman and Mr. Haynes, the second prize going to Mr. W. Coleman, and the third to Mr. M. Henderson.

Of eight Apricots, there are two nice dishes. The first-prize one is well ripened, and comes from Mr. E. Smith, Upper Alstone, Cheltenham; Mr. C. Winstone, gardener to H. B. Bristow, Esq., Fern Bank, Kenilworth, having the second best.

FIGS.—There are two nice dishes of Brown Turkey sent to represent this class. The best are Mr. Bannerman's; and Mr. J. Foster, gardener to E. Greaves, Esq., Avonside, has the second best.

CHERRIES.—In fifty black Cherries Mr. G. T. Miles has the best black Tartarian; Mr. W. Cox is second; and Mr. W. Gar-

diner, gardener to Sir E. Phillips, Bart., Shipston-on-Stour, third with Elton. For fifty white Cherries Mr. Miles is again first with excellent Bigarreau Napoleon, and Mr. Douglas second with the same.

STRAWBERRIES.—In the class for twenty-five of the British Queen or Dr. Hogg type, Mr. W. Cox has good British Queen, and gains the first prize; Mr. W. Gardiner being second with Dr. Hogg; the third prize going to Mr. J. Taylor for the same sort. For the same number of any other variety all the prizes go to Sir Joseph Paxton, which seems to have been in the highest position in many places this year. Mr. H. James, New Street, Kenilworth, is first; Mr. E. Chadwick, gardener to C. Nelson, Esq., Kenilworth, second; and Mr. J. Taylor third, an extra award being given to Mr. J. Douglas for Frogmore Late Pine.

MELONS.—Of single fruit of Green-fleshed varieties there are eighteen exhibitors. All the prizes go to white-fleshed sorts. Mr. W. Cox has the best Golden Gem; the second prize also goes to that variety from Mr. H. Nott, gardener to J. Anderson, Esq., Staines; Mr. W. Gardiner is third with Colston Basset Seedling. An exceedingly good-flavoured Scarlet-fleshed sort was entered by mistake in this class, and disqualified.

Of Scarlet-fleshed there are only ten staged, the best by far being Read's. Mr. J. Read, Arley Hall, Northwich, is first; Mr. J. Malcolm, gardener to the Marquis of Cholmondeley, Cholmondeley Castle, Nantwich, second; and Mr. W. Coleman third. All the other varieties are poor in flavour.

COLLECTIONS OF FRUIT (eight dishes, distinct).—A silver challenge cup value twenty-five guineas was offered in this class, besides the money prizes. It brings out only four exhibitors, however. The first prize goes to Mr. W. Coleman. He has two magnificent bunches of Black Hamburgh Grapes, fairly ripened; Muscat of Alexandria, a Moscow Queen Pine, Peaches and Nectarines, Figs, Strawberries, and a Melon. Mr. T. Bannerman is second; he also has a good Pine, and Black Hamburgh Grapes. Mr. J. H. Goodacre, Elvaston Street, Derby, is third.

VEGETABLES.

Here, as in the fruit tent, the entries are numerous and the quality excellent; indeed, having a recollection of the show of these at Aston two years ago, the exhibition is in this respect much superior to it. Though two tents have been devoted to them, one would have been sufficient.

COLLECTIONS.—For tea dishes Mr. G. T. Miles is first, and gains the challenge cup. He has twelve Naples Onions, weighing 17½ lbs.; splendid James's Prolific Peas, Globe Artichokes, Turnips, Dwarf Kidney Beans, Tomatoes, Asparagus, Cauliflowers, and very fine Mona's Pride Potatoes. Second is Mr. J. Turk, Tewkesbury Road, Cheltenham. He has good Alma Kidney Potatoes, Dwarf Kidney Beans, Mushrooms, and Peas. Third, Mr. J. Holder, Battledown Nursery, Cheltenham. In this collection are good Early Rose Potatoes. Five more collections are exhibited. Of eight kinds of vegetables, in which class, as in that just noticed, Cucumbers and Saladings are excluded, the first prize goes to Mr. C. Arkell, gardener to A. Z. Skinner, Esq., Cheltenham. He shows some good dishes. Large Red Tomatoes, Early Rose Potatoes, and Carrots are good. Mr. E. Ford, Baginton Hall, Coventry, is second. This collection is strong in Myatt's Prolific Potatoes and Early London Cauliflowers. Third prize, Mr. J. Burnett, gardener to Mrs. Hope, The Deepdene, Dorking. Eight more collections were staged, some of them being disqualified through not adhering to the terms of the schedule.

POTATOES.—The exhibitions of three dishes of Kidney varieties are very fine, and much difficulty must have been experienced by the Judges in determining the awards. Mr. Baker, Brampton, Oxon, is first with Rivers's Ashleaf, Early Blush, and a very well formed sort, name not known. Mr. H. Biddle, Park Lane, Loughborough, is second; a very distinct sort with a clear white skin is in this collection. Mr. G. Baggaley, Spyrston, Newark, is third. The same exhibitors hold the same relative positions in the class for three dishes of Round, being first and third, while Mr. R. Gilbert, gardener to the Marquis of Exeter, Stamford, is second. The best Potatoes are, of Rounds, Early Kemp, Red Emperor, Early Coldstream, Early Hands-worth, Climax, and Bresee's Prolific.

For a single dish of Kidneys Mr. H. Biddle is first with Prince of Wales, Mr. G. T. Miles second with the same sort, and Mr. G. Baggaley third with a variety named Champion of England. For a single dish of Round Mr. H. Biddle is first with Rector of Woodstock; Mr. G. Craddock, Compton Verney, Warwick, second with Climax. The third prize goes to Mr. J. Baker for Early Kemp—a variety well shaped, but mottled with pink about the eye.

PEAS.—In the class for three varieties, half a peck of each, there are sixteen competitors. The first prize goes to Mr. R. Gilbert, Burghley—he has Supplanter, G. F. Wilson, and Fillbasket; second, Mr. J. Richardson, Boston. In this collection is a fine dish of G. F. Wilson. This is a grand Pea, and shows up well in all the collections. Mr. W. Cox and Mr. Turk are equal third. For a single dish Mr. G. T. Miles is first, Mr. J.

Baker second with *Ne Plus Ultra*, and Mr. A. Dean third with James's Prolific. Mr. Thomas Laxton, of Stamford, gives prizes for Peas of his own raising—viz., Laxton's No. 1, Fillbasket, Superlative, William I., Popular, and Omega; four sorts to be selected from these six. Mr. J. Richardson is first—he has Fillbasket, Omega, Superlative, and Popular; Mr. R. Gilbert is second, and Mr. G. T. Miles third.

ONIONS.—In this class very fine Early White Naples are sent by Mr. W. Cox and Mr. G. T. Miles; but their dishes, through some unaccountable means, were passed over, and the first prize given to Hurst's White Tripoli Onion, from Mr. E. Smith, Upper Alstone, Cheltenham, the second prize going to Red Tripoli from Mr. J. Turk, Tewkesbury Road, Cheltenham. Mr. O. Arkell is third.

CUCUMBERS.—Mr. J. Douglas is first with a brace of his Tender and True; Mr. J. Holder second with a fine white-spined variety named Dreadnought; and Mr. E. Chadwick third with Improved Champion White-spine. Twenty-one brace are exhibited.

KIDNEY BEANS (fifty pods).—Mr. G. T. Miles is first with Canadian Wonder, very fine; Mr. R. Gilbert second with the same variety; Mr. J. Hall, Davenport, third with Negro.

CELERY (three sticks).—The white variety which gains the first and second prize is remarkably fine for the time of the year; it would be fine for September, and is named Lion's Paw. Mr. O. Arkell and Mr. A. Smith are the exhibitors. The third prize goes to Mr. G. Bloxham, Brickhill Manor, Bletchley.

OF OTHER VEGETABLES. Rhubarb comes from Mr. E. Smith, Mr. W. Cox, and Mr. J. Mitchell, Escrick Park, York; very fine Carrots from Mr. O. Arkell, Mr. E. Smith, and Mr. J. Baker. For Turnips, Mr. H. Holder, Mr. Joseph Douglas, Retford, and Mr. J. Barnwell, of Hereford, are the prizetakers.

Cabbages are fresh, and come from Mr. E. Ford, Mr. O. Arkell, and Mr. W. Brown. Cos and Cabbage Lettuce are well represented; Mr. W. Brown, Mr. W. Cox, and Mr. A. Dean, of Bedford, have the best examples. Cauliflowers are overdone, though Mr. Barnwell has three nice heads. Mr. E. Ford and Mr. Miles are also prizetakers.

There are some good dishes of Asparagus. Mr. C. Arkell has the best, Mr. E. Smith the second best, and Mr. J. Turk the third. Of Broad Beans Mr. Miles has a fine dish of Improved Longpod, and Mr. J. Richardson has the second prize. Mushrooms are not first class, the best being those from Mr. J. T. Cushon; Mr. T. Allen, gardener, Teddesley Park, has the second best, and Mr. J. Holder is third. The first prize dish of Tomatoes are those from Mr. W. Cox, and are very fine; and Mr. G. T. Miles has a nice dish of Hathaway's Excelsior. A good dish also comes from Mr. Arkell.

A class is also made for baskets or trays of not less than twelve varieties of salads. Four very nice baskets indeed are exhibited, although we do not think the Marigold, Nasturtium, and other cut flowers introduced, and which faded in an hour or two, are an improvement. The first prize is well deserved, and goes to Mr. E. Smith; his Celery, Endive, and Lettuce are very fine. Mr. Holder earns the second award, and Mr. J. Turk the third. These baskets were much admired, especially by the ladies.

DESTROYING WASPS' NESTS.

HAVING seen a receipt in this *Journal* for destroying wasps' nests by cyanide of potassium, I tried it this year on the first nest I found; and though I used it twice at two or three days'

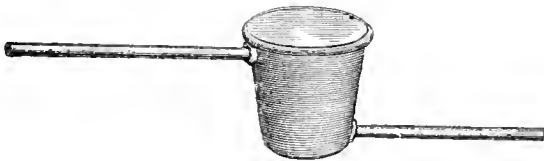


Fig. 7.—Wasp-deceiving Apparatus.

interval the wasps came to life again, and on digging out the nest the queen was found alive and well. The next nest was taken in the following manner: In a common flower pot of medium size were cut two holes, one near the bottom, and the other at the opposite side near the top. A piece of old tin was placed on the top, and after some pieces of corduroy and tobacco had been put inside and lighted it was fastened tightly down with a bit of clay. Each of the holes being fitted with a tube (in this case two elder sticks with the inside taken out), the one from the upper hole was placed in the nest, while someone blew down the other, so that all the smoke went into the nest. In about five or seven minutes the nest was dug up, and all the wasps were quite stupefied, so that it was easily lifted whole into a bucket of water. I enclose a rough sketch of the apparatus (*fig. 7*), to render my meaning clear. As it

seems probable that this will be a very bad year for wasps, if anyone knows a simpler plan perhaps he will make it public. —B., Breconshire.

BELGIAN FARM GARDENS.

THE possibility of making a decent living for a family out of a farm depends in a large degree upon soil and climate. A small farm of a few acres in England, and more especially in Scotland, means semi-starvation. We have seen several instances in which the thing has been tried, and lamentably failed. A case occurred not long since within our personal observation, in which a land proprietor, by way of experiment, let a piece of ground, extending to about eight acres, with a house upon it, for a merely nominal rent. The land was good though a little rough, and the tenant set stoutly to work upon it. In two years he gave it up as hopeless. Another person made the attempt, and he also, in the same length of time, begged to be released of his lease, which was taken off his hands. The experiment was then very properly given up, and the land absorbed into a larger holding. It is quite a different matter trying to farm on a small scale in the Bay of Naples or in Belgium. There the farming is in reality a kind of gardening. Soil and climate, as well as old engrafted habits, conspire to make it practicable for a man, wife, and children to extort a living from a mere patch of ground. It is a pity that theorists who talk confidently about land-distribution, do not, from any personal knowledge, tell us how it is to be satisfactorily accomplished. We say distinctly that the cultivation of lands in Great Britain will not prove advantageous unless on a considerable scale, with professional knowledge, and capital to hire labourers, to buy and keep horses, to purchase artificial manures, and lie out of returns in the ordinary course of business. As regards that garden of northern Europe, the more fertile part of Belgium, the appearance of things there is certainly very fascinating—the neat whitewashed dwelling and outhouses, the trim miniature fields, the orchards in blossom, the industrious and simple habits of the people, the spires of village churches peeping out among the trees, all give one notions of the golden age, "when every rood of ground maintained its man." The very fertility, however, which produces this result is for the most part not natural. It is the effect of centuries of diligent application with the spade or plough, constant drugging with manure, and tact in changing the crops. But there is more than this. It is the result of intensely economical habits, of which we can hardly say there is any parallel in England. Without enumerating all the plants to which the Belgian farmer gives his care, the Colza, Poppy, Hop, Flax, Hemp, Chicory, Wheat, Rye, Buckwheat, and Haricot Beans may be named; and as root crops or forage, Turnips, Beetroot, Cabbages, Peas, Vetches, Oats, and the common or scarlet Clover. This variety gives to the country a very pleasing aspect; there are no large fields lying bare, as with us, waiting for the Wheat, but they rather appear like a garden, where are large beds of flowers of every hue. In early spring, the scarlet Clover alternates with the bright yellow Colza, then the beautiful blue Flax; the little white stars of the Buckwheat contrast with the gandy purple Poppy, and the large Tobacco-leaves, whose intense green recalls the vegetation of the tropics. Without these plants the owner never could pay either for the manure he puts in or his high rent, as Wheat grows very poorly. They require much labour, and the soil has no repose; the labourer is always digging with the spade, turning over the soil, hoeing, weeding, or harvesting.

English and Scotch farmers might take a lesson from the Belgian agriculturists in their prodigious care of manure—no wasteful exhalation, no neglect of the liquids which enrich the soil. We might almost say that the Belgian farmer is a reverential worshipper of manure. It is his idol, his treasury. In the first place, there is the manure produced in the cattle-sheds. No cow is allowed to go about in the open air; all stay within-doors, and liquids which we too often see running to waste are carefully conducted into covered tanks. Neither is the solid part allowed to be in the open air; it is covered from sun and rain, which destroy the ammoniacal salts, and trodden by three or four young cattle during the winter. In addition, the farmer collects from his ditches and streams aquatic plants, which he mixes with the manure, or uses them at once to hasten the growth of the Potato. He sends to a distance for the mud dredged from canals, and lime; in the nearest town he buys the refuse from tanneries and manu-

factories, animal black, cinders, street-sweepings, crushed bones, and the refuse of Flax and Colza. His younger children are out at dawn with a litter cart, gathering up from the roads and fields all that, according to agricultural chemistry, can restore to the land what has been drawn from it. Peru sends it guano; and the farmer is seen in spring, sack in hand, sowing the precious powder on the barren portions of his land; and the flinty soil swallows it all with such promptitude, that it must be manured twice or three times a-year. In no country is such high farming carried on, and it would be ruinous without the rich return of these plants, and the accessory crops which are gathered after the principal ones.

In Eastern Flanders, of one hundred acres of land seventy-two are sown with cereals and plants used in manufactures; twenty-eight with roots and forage; but to this must be added thirty-one acres of after-crop, which gives sixty-nine as affording excellent food for cattle, superior to common meadows, and which explains how poor land can pay a rent of £5 an acre. The second sowing consists of Turnips and Spargula after Colza, Flax, and early Potatoes; and the Carrot which is sown in spring with the preceding crops, and carefully hoed after they have been taken away. The Clovers having occupied the ground during winter, leave it clear for the April sowing; and the giant Cabbage develops during the cold season, making a stem 6 feet high, and giving abundant and excellent leaves for milch cows. Culture thus pushed to the extreme necessarily requires some capital, and it is reckoned that through a system of rigorous parsimony and saving, double the sum per acre is used in Belgium to that employed in England, and two-thirds more in the best farms. In this way the most dense population in Europe can subsist on a soil so little favoured by Nature. Here it will be observed that the small farmers of Belgium, with the ten or fifty acres, place their reliance on a variety of crops, such as we could not profitably introduce into England. We might say the same thing of small farming in Lombardy. There the land bears three crops at once—Mulberry trees, grown for the sake of their leaves as food for silkworms; Wheat beneath the trees; and Vines in the hollows of the ridges. In the south of France we see the same diversity; in some places Olive trees for the oil they produce, taking the place of the Mulberry. In such parts the country is like a garden; and with little winter, there is something growing all the year round.

Turning to one of the most fertile parts of Belgium, all, as has been said, is charming—every road is bordered with trees; not a rise in the ground is seen; all is calm, uniform, and presents an image of quiet comfort and peace. Each house is detached, and surrounded with large Apple orchards, hedged in by Box, Holly, or Hawthorn, where the cows are brought to feed every morning and evening; it is of one storey only, and thatched, containing four rooms, the first for meals, the second for the dairy and preparing the food for cattle, the others for sleeping rooms. The old-fashioned oak furniture is a model of brightness; tin and copper utensils shine on the walls, which are whitewashed. The garden is gay with Wallflowers, Dahlias, and Hydrangeas, and the florists' flowers which are to be shown at Ghent. Outside, everything is in its place; nothing spoils the green sward; the ditch and the manure-heap are banished; the latter is always under the roof of the stable or cow-shed. In this stand five or six large cows, the constant care of the farmer's wife, who gives them abundance of green meat in the summer, with straw, hay, and a kind of warm soup, mixed with Carrots, Turnips, or Rye in winter. Thanks to this nourishment, and the constant rest they enjoy, the animals give from 15 to 25 quarts of milk daily. The tools are simple, but of first-rate construction; the plough is light, drawn by one horse, and works with ease, rapidly, and regularity. The harrows are of various kinds, triangular, rectangular, or a parallelogram; but the special tool with which the Fleming has fertilised sands, dried-up marshes, and forced back the sea, is the spade. The proverb on the banks of the Scheldt is: "The spade is a gold mine to the peasant;" and different kinds are made for light or heavy soil. The fields are mostly square, and rarely contain more than an acre; the ground is curved symmetrically, the centre being the highest, so that the water drains down equally in all directions. Round the field, and a foot lower, extends a strip of grass, 3 or 4 yards wide; still lower, a hedge of Elders is planted, which is cut every seven years; and, finally, the plot is surrounded by a ditch, bordered with trees of larger growth. Thus each piece furnishes rich Grass, firewood every seven years, and timber

for building every thirty years. The plough is generally used; but every seven years the subsoil is turned to the top by the spade, and thus it acquires a depth unknown to all but the best gardens; the principal object being to produce Flax and butter, not cereals. The best farmers never sell their corn, but allow their cattle to consume it. Unhappily, the farm-labourer there, as elsewhere, does not enjoy much comfort; working harder than most men, he is the worst fed. Rye-bread, Potatoes, Beans, buttermilk, without meat or bacon, is the usual fare, chicory the constant drink; beer is reserved for Sundays and fair days. His wages vary from 10d. to 1s., and he could never live upon it did not all the members of his family work without ceasing.

Yet, though their life is so hard, the towns do not attract the rural population. Habit and family traditions bind them to the plough; whilst every nine years, at the renewal of their lease, the raising of the rent fills them with anxiety and poisons their existence. It makes them distrust all those who are making inquiry on the state of agriculture, and dissimulate as to the fertility of their land and the produce they obtain from it. Western Flanders is crossed by a strip of land which is particularly difficult of cultivation; until lately it was scarcely inhabited, and covered with low brushwood and marshy heath. The Reindeer Moss enveloped the trees with a layer as of white ashes; abundance of Ferns and Moss grew, and the sickly appearance of other plants gave the country a sterile appearance. But by means of the Pine tree this land has also become valuable. About 30,000 young trees are planted on an acre; at the end of seven years these are thinned and sold for firewood. The land must be rich and provided with Fir poles, 3000 to the acre; as it grows the stems have to be tied, and liquid manure given to those plants which show yellow leaves; finally, at the time of harvest, numbers of work-people have to be gathered together for the picking. But whilst in England the whole of the ground is sacrificed to the Hop, there are in Belgium the most splendid crops of Wheat and Beetroot growing between. Chicory, like the Hop, is a very expensive article of culture; but it gives a rich return, estimated at £40 an acre. The produce of Colza is also very valuable. It will be seen that few sheep are fed in a country where there is so little pasture. Horses of great strength, and milch cows which give much butter, and can be fed in the stable, are considered most advantageous, and statistics show that more of these animals are fed on the acre than in any other country. It is to be remarked that the Flemish farmer has compensated for all the disadvantages of his soil and climate by a simple means within the reach of all—that of restoring to the land what it gives to the wants of men, the secret of agricultural chemistry.—(*Chambers's Journal*.)

THE PEACH CROP IN THE UNITED STATES.

THE Delaware Peach-Growers' Convention met on the 16th of June at Dover. Mr. Townsend, of Newcastle County, probably the best authority on Peaches on the Peninsula, presented some twigs to the meeting, which exhibited the condition of the different varieties in his own county particularly, and the country generally. The Hale's Early were the fullest of the specimens shown, and a good crop throughout the Peninsula of this variety, the earliest, is expected. They will probably form a very large part of the entire yield for the season. The Trotha were also very full, but the Early Yorks did not seem so good. The Old Mixons exhibited only a very small chance for a crop. The Smocks will probably be only tolerably full. The Stump-the-World made a poor show, and the Crawford's Late were about on a par with them. The Crawford's Early made a very excellent show. The Reeves' Favourite looked very promising, and the Moore's Favourite here looked well.

Mr. Townsend also reported to the Convention that the crop for the present season would fall very far below even that of last year; that, probably, there would be only one-third as many. There were about 1,500,000 baskets last year. A grower, representing Smyrna and the country around, reported the prospect for a good crop in that neighbourhood as very uncertain, and a gentleman from Dover thought that the yield from this section would be very thin, in fact almost a failure. In Kent County, Maryland, a very prolific Peach section, the crop was reported a failure. In Sussex County, Delaware, a like report was made, and the same from the lower portion of the eastern shore of Maryland. The estimates

were then called for, and the following were reported by the growers representing the different sections:—

From Mount Pleasant, 20,000 baskets; Kirkwood, 10,000; Armstrong's, 35,000; Middletown, 75,000; Townsend, 25,000; Giums, 2,000; Black Bird, 5,000; Green Spring, 5,000; Clayton, 35,000; Brentford, 10,000; Morton, 25,000; Dover, 20,000; Wyoming, 20,000; Woodside, 5,000; Canterbury, 10,000; Felton, 10,000; Harrington, 5,000; Farmington, 3,000; Greenwood, 2,000; Bridgeville, 10,000; Seaford, 5,000; Laurel, 10,000; Delmar, 2,000; Salisbury, 5,000; Dorchester and Delaware Railroad, 10,000; Junction and Breakwater Railroad, 10,000; Kent County Railroad, 25,000; Maryland and Delaware Railroad, 25,000—making a total estimated shipment by rail of 412,000 baskets. It was also estimated that 158,000 additional would be shipped by water, making a total shipment from the entire Peach country of 600,000 baskets. This report was accepted by the Convention, although some of the growers thought it rather a low estimate; but it seems to be the general opinion of those who should know, that this will be the extent of the crop for this year.

AMONG THE NORTH-FOLK.—No. 2.

I sat down to tell more of all I know and have seen of Hunstanton, but must first relieve my mind of the "Norfolk dumpling." Never was a greater delusion. I had read of it, heard of it, and sat down to it, and found it was nothing but a large yeast dumpling! Accompanying it was a tureen of gravy, and I was told that that is its orthodox accompaniment.

Well, that's off my mind; and my next note is on that special English text, the weather. I see in the Lynn papers that the centre of the county was visited by a frost and keen wind on the night of June 20th, which cut down the haulm of the Potatoes and the Kidney Beans, but it did not reach this north coast, and the Potatoes, Peas, and Kidney Beans are uninjured and most promising.

When it is high tide at Hunstanton at eight o'clock in the morning, the ebb is at its very lowest about twelve, and the Submarine Forest may be visited by any pedestrian. If at the hour last-named from beneath the wall of the lighthouse garden he looks in a northerly direction he can see on the sea's margin what appears like an expanse of black earth. It is about a mile and half distant across level, stoneless, but wet sand; its blackness is caused by its being a mass of dark-grey unctuous clay, with mussels thickly spread about its surface. In that clay the prostrate forest trees are embedded. It is a low flat bank, about a quarter of a mile long and averaging about 40 yards broad. Above the surface of the clay protrude two or three stumps of tree trunks, the sides of many prostrate trunks, and stumps of their branches. All are intensely black, yet so well preserved that the grain of the wood of the branch stumps when broken is plainly discerned. I have specimens showing clearly that they are Oak. The few trunks which I was able to trace along portions of the length ranged east and west, with their heads towards the quarter last-named.

This bank is the burial ground of a very small portion of the drowned forest, for the Rev. George Munford, who well studied the natural history of the district, has recorded that "this submarine forest commences at Brancaster Bay, stretching by Holme and Hunstanton, across the Wash, and extending all along the coast of Lincolnshire from Skegness to Grimsby. This now submerged tract was once inhabited by herds of deer and oxen, as is evident from the remains of their horns and bones which have been occasionally found there; the foot of man has also trodden these now ruined wastes, for works of art have been met with buried with the forest beneath the waves. The prostrate forest consists of numberless large timber trees, trunks, and branches, many of them decomposed, and so soft that they might easily be penetrated by a spade. Many of the trees, however, are quite sound and still fit for domestic purposes; and, indeed, they are sometimes used by the proprietors of the neighbouring lands for posts and rails. But the most extraordinary thing met with was a British flint celt or axe embedded in the trunk of one of the decomposed trees, about 1½ inch, by its cutting edge. This curiosity is now deposited in the Norwich Museum."

This excursion to the submarine forest made me more than ever conversant with the abundance and variety of Seaweeds. I have already noticed their employment here as a manure; and now I saw cows quietly walking down to the beds of growing Seaweeds, each taking a mouthful or two, and then returning as leisurely to their grass pasture as they had come from

it. They know that the salt in the Seaweed makes them feel comfortable, as we know that it promotes their digestive power. Among the Seaweeds was the *Chondrus crispus*, often used as a substitute for isinglass; and *Dulse*, *Rhodomenia palmata*, which is considered invigorating when boiled in milk for invalids. All Seaweeds early in the present century were burnt to form kelp, then the only source of alkali for the glass and soap makers, but now these weeds are used for other purposes. They are distilled by highly heated steam, and an illuminating gas, oil, acetic acid, iodine, and chloride of potassium, all useful in various arts, are thus obtained. The residuum has a powerful deodorising power, and can be used for that purpose with sewage for manure.

I will in a short time communicate my notes on Hunstanton Hall.—G.

ROYAL HORTICULTURAL SOCIETY'S FLORAL COMMITTEE.

YOUR reporter has given me credit for two very well-grown pans of *Nertera depressa* at the South Kensington Show on the 1st inst. They were no children of mine, but as they had no card in front, and as my card was before a bottle of cut Lilies very near, the *Nertera* was credited to me. If the Floral Committee continue the new rule of not allowing exhibitors' names to appear, care should be taken to place cards with names immediately after judgment. I have heard of several mistakes, and not a little discontent caused by the omission of this.

Old stagers say that the exhibitor's friends know his plants without the name appearing, and that knowledge is really only withheld from those who would make good use of it. Our Fruit Committee rule of having numbers instead of names for collections of fruit exhibited for prizes, seems to work well, but this case is rather different.—GEORGE F. WILSON, *Heatherbank, Weybridge.*

APPLES AND SOILS.

DURING an extended observation of several years we have noticed a peculiar adaptation of varieties of Apple trees to site and soil. We have found the English Golden Russet succeeding best on decidedly dry soils, and sunshiny slopes, or high land. Tops liable to winter kill when trees are young, hardy when older. Not an early bearer, but bears regularly and well with age. A poor nursery but good orchard tree.

Talman Sweet chooses a strong, rich soil, where it can make a good annual growth. Young trees very liable to bark-burst, and a bad nursery tree on that account. Here the tree is almost hardy—receives injury many winters, but with strong soil and good culture will recover. When in bearing is very productive, trees from eighteen to twenty-five years old bearing twelve to thirty bushels of Apples.

Fameuse thrives best on limestone, clay, loam, or Oak-bush land, such as is found at Baraboo in the State. Fails on sandy land, and is worthless there. A good nursery tree, and where it succeeds, one of the most profitable orchard trees.

Duchess of Oldenburg—hardy on most soils, but suffers considerably from drought on sandy soils. Needs a clay or loam, and will do well where it is too cool and moist for the Golden Russet. Very liable to send-up water-spouts from the roots on account of early maturity of growth of top before roots naturally would.

Alexander is very hardy, but liable to fire blight. Thrives best on clay loam soil, and blights most on sandy soils and hot exposures.

Yellow Belleflower has not proved productive or profitable as far as we have seen it, and is not hardy enough to endure well here.—A. L. HATCH (in *American Horticulturist*).

LELIA MAJALIS.

THIS species is always admired, and always desired by Orchid amateurs, and yet very few succeed with it when they do become possessed of the plant. It is a dwarf-growing plant, forming somewhat ovate or sub-rotund pseudobulbs, which vary from 1 to 2 inches in height. The leaves are usually solitary, some 4 inches long, oblong in shape, thick and leathery in texture, and deep green in colour. Like all the genus, the spike springs from the top of the pseudobulb, and is generally single-flowered; more rarely two are produced (our illustration shows these). The flowers are large and showy, and from the

thickness of sepals and petals last a long time in full beauty. They measure between 3 and 4 inches in diameter. Sepals and petals delicate rosy-lilac in colour, the latter much the broadest; lip large and three-lobed, bordered the same colour

as the sepals and petals; the centre, however, is white, more or less streaked and spotted with lilac and chocolate. It blooms during the months of May and June. Native of various parts of Mexico.



Fig. 8.—*LÆLIA MAJALIS*.

Lælia majalis I have found thrive best upon a good-sized block of wood. Indeed I am of opinion that it does not long retain its vigour if treated as a pot plant; but there is not the slightest reason why the block should not be placed in a pot if found more convenient. This plant, like many of the Mexican Orchids, enjoys full exposure to the sun, and it should be kept near the glass during the summer. Under this treatment, and with a free circulation of air, the thermometer will run up to

80° or 85°; and if it falls again to 65° or even lower during the night so much the better will the plant thrive. The plants must be well supplied with water at this season; not so much overhead as between the pots (when so placed), or upon the floors and stages and blocks when they are suspended, in order to keep the atmosphere from becoming too arid. During winter very little water will suffice; and the temperature by day may range from 50° to 60° upon bright days, whilst at

night the nearer the thermometer stands at about 45 the better. Mr. Anderson, gardener to the late J. Dawson, Esq., of Meadowbank, and the Messrs. Backhouse & Sons, of York, have perhaps hitherto been the most successful in flowering this truly beautiful species.—*EXPERTO CREDE.*

THE CURIOUS WAYS OF PLANTS.

Who can account for the ways of plants, or explain why a certain species will grow in one place, and will not in another exactly similar, so far as human intelligence can determine? Some wild flowers disappear on the advance of civilisation; while, on the other hand, the Plantain, if the truth is told, goes wherever Europeans go; and in this country was unknown until after the English came, following so closely on their tracks that the Indians gave it the name of "White Man's Foot."

Some species, as above intimated, may be found in a particular locality, and nowhere else within half a dozen miles. There is, for example, in this neighbourhood, in central New England, one spot where are a few shrubs of the Mountain Laurel (Spoon Wood) in a little patch by the roadside; and although this would seem the natural country for it, it can be discovered in no other place anywhere about.

Then there is the Fringed Gentian, which has been seen beside a secluded road some six miles away; but, with that exception, appears wholly unknown in the vicinity; yet the Closed Gentian is abundant. Another of the perversely disappointing flowers is the Dog-tooth Violet; not, however, more capricious than the Yellow Violet and the noble Liverwort (*Hepatica triloba*), which, in certain dry Maple woods in the one case, and in open knoll-covered pastures in the other, grow in great abundance; still, one might search acres of similar woods and pastures for them, all to no purpose.

Another case, somewhat in point, is the Holly—indigenous, or at least one variety, to moist woods along the eastern border of New England; but so partaking of the aforementioned eccentricity, that he may count himself a happy man who can find it, and prove his success by great armfuls of it wherewith to deck his house at Christmas. One gets glimpses of it while riding through some swampy tract on Cape Ann; the bright berries and evergreen leaves, so suggestive of English good cheer, betraying it. There, too, in summer, by searching diligently, one may find a species of *Magnolia*, that being about its northern limit.

No common New-England flower is so little to be depended upon as the trailing *Arbutus*. It is difficult to determine what it wants. It abounds in gravelly knolls by the wayside, and thrives on the very edge of pasture bogs, and in the shade of woods; and yet, with all this versatility, there are many towns where it is never found, and where, though transplanted and tended with care, it cannot be made to live.

Quite opposite, in these respects, is the Cardinal Flower, whose home is by the water side, the only place where it grows naturally, although the kind of water is not of imminent consequence, for it will do just as well in a dark nook under the upheaved root of a Willow, on the edge of a mill pond, in the muddiest ooze, as in the cleanest sand along a river's bank, its chief requirement seeming to be that it shall not be crowded, one stalk always standing by itself, independent of its kind, and not in close neighbourhood to other plants. It is so adaptive that it will bear removal to a garden, taking kindly to its new conditions; and there it will come up, year after year, flaming out in live scarlet, in "one glorious blood red," as if nothing had happened to it.

There are other facts, more singular, as to the ways of growth and "how" of blooming. One can understand that a Grape Vine may hold to its support by means of a tendril, while an Ivy or a Virginian Creeper secures itself by thrusting its rootlets into a crevice of a wall or in the bark of a tree; but why should a Honeysuckle and a Bean vine wind in opposite directions, the one going to the left and the other to the right? and either will swing on the wind, or sprawl over the ground rather than turn the other way.

The *Ketmia* opens at nine o'clock in the morning, and shuts at ten, as if it had a visual weakness; while a bed of *Portulacas* never expands unless the sun is out, and the hotter he shines the wider they spread themselves; and the Evening *Primrose* waits until he has gone down, and then comes open with a snap, like a subdued kind of fire-cracker.

But most unaccountable of all, perhaps, is the Night-blooming *Jasmine*. You see a simple tree-like plant, with a plain

style of leaf, at the base of which grows a spray of yellowish green tubes, like lilac buds, suggesting, more than anything else, a string of small candles. You look at them in the middle of the day, and they are "only that and nothing more;" and you might, if you did not know their ways, forget all about them; but when evening comes, forgetting is impossible. The room is full of fragrance, rich as Orange flowers, and almost as subtle as Violets; and lo! your little candles are all lighted: and from somewhere about them comes that perfume which is so delicious and so mysterious as to its source. The next morning they begin to contract; by noon, the five points are all close-packed, and there is no scent to them or about them at all till night comes on again; and so they continue, scentless through daylight, but of exquisite sweetness when darkness appears.—(*American Christian Weekly.*)

DIMORPHISM IN THE ROSE.

It may interest some of your readers to be informed how a Rose tree in my possession has lately illustrated the adage, "*Naturam expellas furca, tamen usque recurret.*" About nine years since an Austrian Briar Rose was planted against a south-west wall, and has from that time periodically produced flowers of that peculiar and attractive colour which it is very difficult to define, but with which florists are well acquainted. This season, however, at a distance of 7 feet 8 inches from the base of the stock where the bud was inserted, a small shoot of about 6 inches in length has produced six bright yellow Scotch Briar blooms, whilst towards the extremity of the same branch many pure Austrian Briar Roses have presented themselves. It is worthy of remark that there is one strong shoot, about midway between the stock and the yellow variety, which has as yet borne no flowers, although it appears to be of precisely the same character as the rest of the tree, less the particular shoot alluded to. This is surely a remarkable effort of Nature to reproduce itself.—*WEST-COUNTRYMAN.*

WEST KENT HORTICULTURAL SOCIETY.

THE fourth annual gathering of the West Kent Horticultural Society took place on Saturday last in Camden Park, Chislehurst, the seat of the Empress Eugénie, by her kind permission. The day was fine, and the Show was visited by a large number of well-dressed people. About 1 p.m. the Empress honoured the Show by her presence, and was attended by the Committee, headed by their President, Lord Sydney, and accompanied by the Earl of Darnley; and during the afternoon the Committee had the honour of conducting the Prince Imperial through the tents, and who left a substantial present to be divided amongst the cottagers.

The Exhibition was held under canvas, and occupied three tents, 300, 200, and 100 feet long respectively. The first was filled with plants of which there was a goodly representation in thirty-one classes, and various miscellaneous groups sent by Messrs. J. Veitch & Sons, Chelsea; Messrs. Rolisson & Sons, Tooting; Carter & Co.; and Downie, Laird, & Laing, of Forest Hill. These groups formed an excellent adjunct to the Show, being as varied and quite equal to the groups shown by these firms at the metropolitan exhibitions. Foliage plants were shown in large numbers, and of good quality. A large miscellaneous group was shown by Mr. Shaw, gardener to E. Wilson, Esq. Cut Roses were shown by G. Paul & Sons, Mr. Cant, of Colchester, and Mr. Cattel, of Westerham, as well as from numerous amateurs living in the neighbourhood, many of which were in excellent condition.

Fruit was also well represented. There were three collections of fruit, containing Pines, Grapes, Peaches, Nectarines, Melons; and there was a fair show of these kinds of fruits in the classes as well as Strawberries. Vegetables were contributed largely by amateurs and cottagers, the Committee encouraging the latter by giving prizes for the best-arranged gardens, as well as a copious schedule for the different kinds of vegetables.

VANDA LIMBATA.

This is a beautiful new species, now flowering (for the first time, I believe, in England) in the establishment of Mr. B. S. Williams, of Upper Holloway. It is a small-growing plant, somewhat resembling *V. Roxburghii* in size and habit, but it differs from that species both in the flowers and its leaves also, which are not so sharply keeled below. *V. limbata* produces leaves some 10 inches long and 1 inch broad, channelled above but rounded below, and bright green in colour; spike erect, many-flowered; flowers $1\frac{1}{2}$ inch in diameter; sepals and petals somewhat spatulate, bright chestnut, tessellated with markings of a darker brown; lip large for the size of the flower,

and, together with the column, bright rosy-lilac, tinged with purple.

I am not aware if the native country of this elegant species is known, but it is a fine addition to this noble genus of Orchidaceous plants.—*EXPERTO CREDE*.

GARDENERS' ROYAL BENEVOLENT INSTITUTION.

THE 31st anniversary dinner of this Institution took place in the London Tavern, Bishopsgate Street, Alfred de Rothschild, Esq., M.P., in the chair, supported by Mr. Alderman and Sheriff Whetham, the Rev. W. Rogers, Rector of Bishopsgate, Major Snell, Alfred Smee, Esq., F.R.S., Messrs. Wrench, Hurst, J. Burnell, B. S. Williams, John Lee, and other members of the nursery and seed trade. After the usual loyal and patriotic toasts had been given in appropriate terms and enthusiastically received, the Chairman in proposing the toast of the evening, "Success and Prosperity to the Gardeners' Royal Benevolent Institution," after remarking on the beauties of flowers and their influence in human affairs, said "the English gardener had by his industry, skill, and enterprise brought the science of horticulture to a perfection which stood unrivalled, and was not even equalled in countries where the sky was sunniest and the climate less capricious. He spared no trouble or expense in introducing from tropical zones the rarest of Orchids and other exotics, and his care was unceasing in nurturing and fostering those delicate, and in many cases half-withered, plants." The Chairman concluded by an eloquent appeal to the company to support the charity in aid of which the entertainment was given.

The subscriptions of the evening amounted to 771 guineas, of which the Chairman and his family gave 100 guineas. As usual the room was profusely decorated with flowering and ornamental-foliaged plants contributed by the leading London nurserymen.

PACKING FRUITS AND VEGETABLES FOR TRANSIT BY RAIL.

GARDENERS who have to send a supply of fruit and vegetables for their employers' table long distances by rail, generally find out by experience what measures are best. Still, judging from what we have seen, more especially at exhibitions, in the way of packing, and from establishments where better things might be expected, we should imagine that there are not a few of the craft who are not experts at the business, and others who have not had that experience which is quite as essential in that as in other matters. In packing either fruit or vegetables, the first point is to get rid of all unnecessary bulk and weight. We recommend all fruit-boxes to be packed in hampers, and not sent separately or tied in bundles. The hampers should be made of the strongest white willows, and furnished with wooden clogs, otherwise the bottoms will wear out in a few months; and they should also have stout iron bolts and eyes for securing the lid effectually. The basket-maker should have instructions to rivet the eyebolts through the bottom of the hamper, instead of simply attaching them to the rim in the usual way, in which case they get loose in a short time, necessitating the use of ropes to keep the lid down.

Two small hampers are much better than one big one. The concussion is very much less with the former when they are pitched about as we have seen them at the King's Cross platform, and by the Parcels Delivery Company when taking them about to their destination. We have known Melons burst and other fruits to be spoiled through no other cause than this, and we long ago had to discontinue using hampers above a certain size for that reason.

For packing Grapes in, there is nothing better than tin boxes, 18 inches or 2 feet long, 6 inches deep, and 12 inches wide: these sizes will be found to fit suitable-sized hampers. Packing materials should consist of fine paper shavings, or coarse unbleached cotton wadding. It is not contact so much as rubbing which destroys the bloom of the berries; the bunches should therefore be packed very firmly, first wrapping each bunch in one or two sheets of soft tissue or fine drapery paper, and afterwards wedging them together in the box, so that when the lid is shut down they cannot move about, in whatever position the box or hamper may be laid or thrown. Grapes packed in this way rarely get damaged, nor is the bloom of the berries much affected. Peaches require to be a little more carefully handled than Grapes. It is not an un-

common practice to have the tin boxes for these divided into compartments about 4 inches square, or large enough to hold a Peach wrapped in cotton, and afterwards to enclose the boxes in wooden cases; but this plan is cumbersome and expensive, as a dozen Peaches so packed will occupy just about double the space they would require if simply folded in cotton, and packed as closely together as they will lie. Our tin Peach boxes are 12 inches square and 4 inches deep, without divisions, and are consequently adapted for holding either large or small fruit, and the quantities can be regulated according to the demand by using fewer or more boxes. Nectarines may be folded in the cotton wadding without paper; but it is indispensable that Peaches be first folded in the softest tissue paper procurable before folding them in the cotton, as the wool adheres to the skin of the fruit, and cannot easily be removed without injury to the tender skin.

Figs require even greater care in packing than Peaches, they are so easily injured when perfectly ripe, as they ought to be before they are pulled off the tree. In their case a soft Vine leaf should take the place of the tissue paper to keep the cotton wool off them, otherwise they may be treated in the same way. Strawberries are the most ticklish of all kinds of fruit to carry, and need to be gently fingered in packing—in fact, we do not like to finger them at all. Wrapping each fruit in a leaf is a good plan, but deft fingers only can perform the operation without bruising the berries. We like to pull them off the plants by the footstalk, and to lay them in the box in the same way, simply placing a flaccid Strawberry leaf between the berries. In this way they can be wedged as tightly together as needful. The boxes should be 2 inches deep, and before packing a thin layer of cotton wadding should be laid on the bottom, and on this soft Vine leaves; above the fruit, nothing binds so well as the soft Strawberry leaves before mentioned; and above, layers of cotton or leaves to keep all in their places. It is very important that the Strawberry leaves for packing should be gathered some hours before they are wanted, and allowed to dry and flag in the fruit room: leaves freshly gathered are altogether unsuitable. In packing Pines and Melons it is only necessary to guard against crushing by using somewhat elastic packing materials. Gooseberries, Currants, and Cherries, and other small fruits, may be packed in boxes not above 3 or 4 inches deep, with a layer of leaves above and below only. Only choice specimens of Apples and Pears require to be packed singly, and in layers, with some soft material between, but ordinarily no such care is required. Dessert Plums, however, it is worth while to pack with care in a bed of soft leaves pressed down firmly with the lid; in this way the bloom is not much injured.

It is not necessary to say much on the head of vegetables. We may remark, however, that hampers of moderate size are best for vegetables. Too great masses of such things as Spinach, Brussels Sprouts, or Greens, &c., soon ferment, and if they are long on the road, or happen to be left unpacked for a while, they soon spoil. Everything should be cleaned and tied in bundles, as far as practicable, and packed in an orderly manner; and an invoice should accompany every hamper for the convenience of the kitchen authorities and others.

Small salads, such as cheese herbs, which we find are among the daily indispensables, should be packed by themselves in shallow baskets, as even small quantities ferment and rot almost directly if buried among other things. Such things should also be unpacked and laid out in a cool place immediately on arrival.

Vegetables are better when gathered and packed in the morning; and we think, when it is worth while sending a supply regularly, that they should be sent by passenger train. The railway companies are always willing to enter into arrangements to carry such goods at so much a hundredweight; and when we consider that the loss likely to occur through delay by goods trains will probably exceed the difference in the price of carriage, it is evident that the quickest train is the cheapest. We find it so at least; but we are aware that in some cases the hampers are always sent by goods train, on a two-hundred-miles journey, and only once a-week. Seeing that the expense of carriage is the same in the end, it is much better and more convenient to send at least twice a-week, and less quantities at a time; then both vegetables and fruit will be in a fresher condition.—J. S. (in *The Gardener*).

BREMEN INTERNATIONAL EXHIBITION.—A medal for merit was awarded to Messrs. J. B. Brown & Co., London, for excellence

and perfection in workmanship, and cheapness of production, of their galvanised wire netting.

ELSHAM HOUSE.

THE SEAT OF W. HORNSBY, Esq.

GRANTHAM is situated on the river Witham; and placed on a piece of rising ground commanding good views of the town and surrounding district is the pretty villa residence of Wm. Hornsby, Esq., one of the partners in the well-known firm of Messrs. Hornsby & Sons, the eminent implement manufacturers. This firm employs a great number of hands, and, I believe, the town owes much to this enterprising firm. However, it is not of Grantham that I wish to note a few particulars, but of Mr. Hornsby's interesting garden, and more

particularly the spring bedding. At the time of my visit (May 7th), all the beds were full of spring flowers, and every bed was perfect—not a single failure, all seemed to have done well. It was indeed, as a friend remarked, a "grand hit." I will first take a glance at the hot-houses and other glass erections and their occupants.

Attached to the house there is a very pretty conservatory. It is often the style in filling such with flowering plants to aim at crowding as many flowers as possible into a given space: nothing can be more prejudicial to the well-being of the plants. Here every plant is allowed to stand as it were clear of its fellow, at the same time there is no feeling of emptiness about it. A few really well-grown plants are always far more satisfactory in our point of view. A good plant of Azalea Bride of Abydos was here in fine bloom. Ferns are also in-

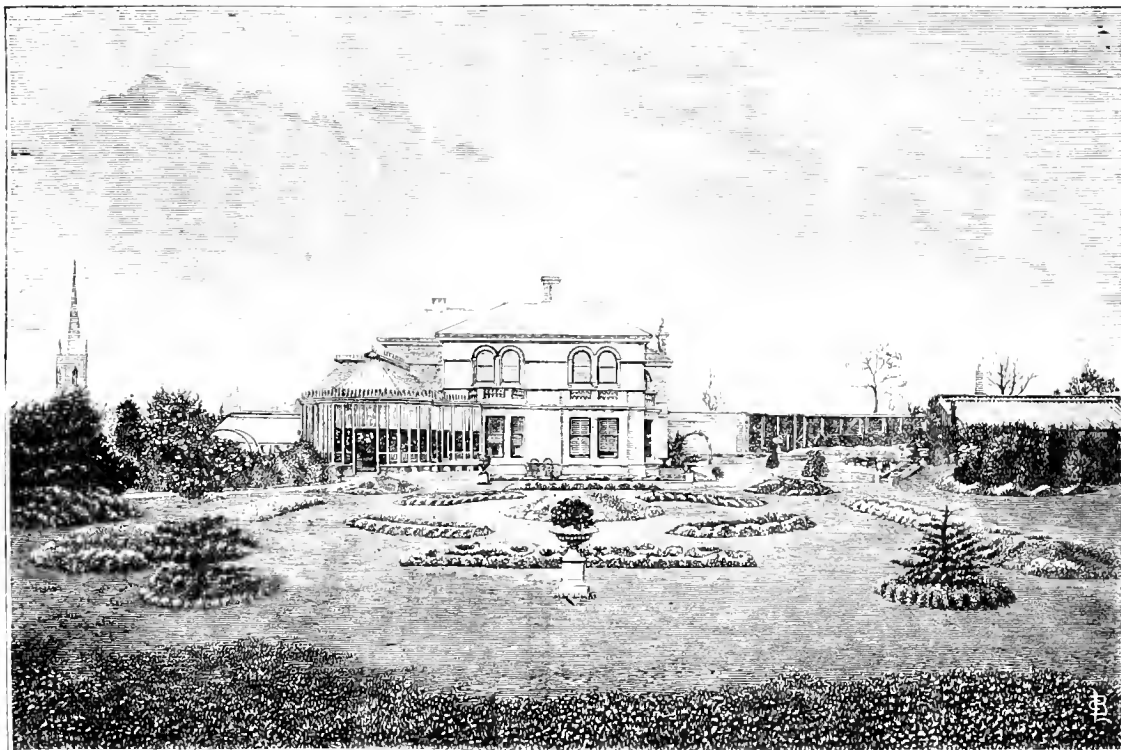


Fig. 9.—ELSHAM HOUSE.

troduced with excellent taste. The house is not large, but the contents are such as anyone who takes an interest in plant-growing may well feel proud of. There are three vineries, all in excellent condition and producing plenty of fruit; they are mostly trained under the rafters, and all are making fine, strong, healthy young wood. In a plant stove I noticed some well-grown plants, such as *Clerodendron Balfourianum*, *C. fallax*, *Bougainvillea glabra*, *Rhynchospermum jasmnoides*, *Stephanotis floribunda*, showing flowers at every point of the young wood; *Hibiscus rosa-sinensis flore-pleno*, *Pavetta borbonica*, with pretty leaves; many varieties of *Croton*, and a nice plant of *Anthurium Scherzerianum*. There is also a stove devoted to exotic Ferns, containing some well-formed plants, such as *Adiantum macrophyllum*, *A. cuneatum*, *A. formosum*, a grand Fern when well grown; *Gymnogramma sulphurea*, *Lomaria gibba*, one of the finest Ferns grown; *Cyathea medullaris*, and *Dicksonia squarrosa*, two fine tree Ferns from New Zealand. There are three greenhouses containing good collections of *Ericas*, *Epacrises*, and *Azaleas*, and also a good selection of other hardwooded plants, such as *Aphelexis macrantha purpurea*, *A. prolifera Barnesi*, *Leschenaultia laloba splendens*, *Pimelea spectabilis*, and many others. Pine Apples are grown in span-roofed houses, with a walk down the middle and a bed on each side. Queens are the only variety cultivated; they are all in pots and look healthy and at home, the young plants are making a fine sturdy growth, which all

Pine-growers like to see. Peaches and Nectarines are grown in two houses; Melons and Cucumbers have three span-roofed houses for their cultivation. There is also the usual assortment of cold pits and frames for growing Potatoes, &c., and bedding plants in spring.

From what has been stated it will be seen that there is a good number of glass houses; they were all well filled with good healthy plants.

The kitchen-garden ground is not very large, it is enclosed by excellent walls, with young trees recently planted. By the sides of the walks there are a good many pyramid Pears and Plums, good young trees lately planted.—J. SMITH, *Exton Park Gardens, Rutland*.

[We shall publish full details, with diagrams, of the bedding next week.—Eds.]

INSECTS AND BIRDS.

NEVER in my experience have insects been so general and abundant as during the present season. Aphides of many kinds peculiar to particular plants are unusually prevalent. Peaches on walls have been literally covered with the green aphides (*Aphis Pyri-mali*), which attacks the Apple and Pear, the former very abundantly this season. The brown Peach aphid (*A. persica*) has given endless trouble in fumigation in Peach houses, and is most difficult to eradicate. Plum trees

have been literally swarmed with *Aphis Pruni*, scarcely a leaf escaped being curled up to the midrib. Cherries were not free of the black fly (*A. Cerasi*), and Gooseberry and Currant bushes were severely attacked with *Aphis Ribis*, and Rose bushes were smothered with *A. Rose*. Whenever aphides are unusually abundant the weather is mostly dry and cold, and whenever there is a great plague of aphides honeydew is deposited proportionately. I know some of your close observers, as the Rev. W. F. Radclyffe, deny, or appear to deny, that honeydew is due to and has its origin in insects. The Editors I think are justified in pronouncing against us (for I do not stand alone) on this point; but whatever the appearances are, for or against our ideas, we must all give way to those facts over at the command of the attentive observer. In no instance have I noticed honeydew without being able to find insects

(aphides) infesting plants, shrubs, or trees, directly over or in close proximity to deposits of honeydew.

To insect agency any observing person may ascribe the formation of honeydew, no other agency natural or artificial causing it to be deposited. The aphides and scale (*Coccus*) tribe of insects do not exist on plants without creating honeydew; it is deposited on all surfaces under or near these insects, be they leaves of plants, walks, paths, soil, stages. It is not found on the parts of plants above the insects, but may be found on surfaces at a considerable distance from the feeding ground of the aphides, yet always lower than it. It falls, as everyone knows, and is never found on surfaces above the aphid-attacked trees. In a plantation of bush fruit trees that may have some standard trees of a kind not infested with aphides, whilst the bush fruit trees are, the latter will



Fig. 10.—SPRING BEDDING AT ELSHAM HOUSE.

have a great quantity of honeydew on the leaves, especially the lower ones, but the insects being at the points of the shoots the upper part of the bushes may also have, and usually have, a slight deposit of honeydew, the standard trees being perfectly free. If the honeydew is not caused by insect agency, why is it present on the bush trees and not on the standard? I have two Apple trees in a plantation of "berry" trees; honeydew is on the latter, the Apple trees are free. Another plantation or quarter is free of honeydew on the low-growing subjects free of the fall from two standard Plum trees which are attacked with aphides; the deposit of honeydew is on the leaves of the Plum trees, and on those of the plants under and for a short distance from the aphid-attacked trees, but the other subjects of the quarter are clear of the deposit. Then we have some groups of Roses near clumps of shrubs; the Roses are attacked with aphides, and the foliage clammy with honeydew, which is not on the grass, the shrubs, or any part of the surroundings.

It may be urged that honeydew is a secretion of the plants, the aphides not being the cause but the consequence of the attack. The honeydew is deposited on the upper surface of leaves, never on the lower, and the aphides come to feed on the under surface, and suck the honeydew through the leaf. It is not a secretion of the plant due to insect agency; for if we take a plant infested with aphides, free it of them, cleansing the leaves and stem of honeydew, making the plant perfectly

clean, on covering it with a hand or bell-glass we shall not find any deposit of honeydew in twenty-four hours. This shows that the secretion, if of the plant, ceases with the removal of the insects, and gives ground for considering the honeydew not a secretion of the plant; for were it so, and arose from the punctures of its tissues by the insects, it is highly probable that the plant would continue to secrete the fluid, for a time at least, after the removal of the insects.

Let us introduce on the plant under the glass two or three aphides, the kind peculiar to the species, and cover again with the glass. Within twenty-four hours we have on the surface of the leaves immediately under the insects dots of honeydew, proving conclusively that its presence is due to the insects, that it is not a secretion of the plant attracting the insects, nor a secretion of the plant caused by the insects, but the secretions of the insects. Anyone can put to the test these simple facts, demonstrating on a Rose bush in a pot, or a *Pelargonium*, the cause of honeydew as clearly as were he master of all the mysteries of vegetation.

The cause of honeydew may appear but a matter of little or no importance to the cultivator, but it is, nevertheless, not altogether insignificant. If it were established that honeydew is a secretion of the plant not attributable to insect agency, it would follow that the condition of the plant caused it to be attacked by insects, and we should then only have to keep the plants healthy—apply that which nature does not afford, and

we should have perfect immunity from insects. If, on the other hand, it were established that the honeydew is a secretion of the plant following an attack of aphides, it would follow that the removal of the insects would restore the plants to health and vigour. It is not, however, a secretion of the plant, but an excretion of insects, which feed on the under surface—the breathing-pores side of the leaves—sucking out the life-blood of the plant, and covering the upper surface with honeydew, a fluid which on thickening completely prevents the action of light, &c. Hence growth of the part attacked is impeded or arrested; immature ripening of the wood results, and the crop of flowers or fruit is rendered imperfect. We thus arrive at an estimate of the damaging effect of attacks of insects on vegetable growth, and become convinced of the necessity of freeing plants of them with the least possible loss of time. Insects derive their support from the plant and leave a deposit. That of the aphid and coccus is a gummy sweet fluid—honeydew. The tiny red spider and thrips leave dots which, whilst the insects feed on the juices of the plant, ultimately result in a fungoid growth and consequent disorganisation of tissue.

The cause of insect attacks is probably the result of some law of nature to meet the demand that will be made by other of Nature's creatures, the feathered tribe, which in a dry and sunny season breed immensely, and then require a greater quantity of succulent insect food than in a wet and sunless season. Be that as it may; the fact remains, that when insects are unusually prevalent their great enemies appear more than ordinarily plentiful, and are uncommonly active. Their great enemies are the birds. There are few, if any, birds that do not feed their young with insects—few birds but what are more or less insectivorous—none, so far as I have experience, that do not at one or more periods of the year destroy an immense number of insects: hence their value to the gardener in keeping the insects (small and comparatively insignificant creatures individually, but in innumerable hosts) from so exerting themselves on vegetable life that the garden would be turned into a wilderness, and the field into a desert. The balance of power as regards the insect and vegetable kingdoms appears to rest with the birds. They have after suffering much, and it is to be feared unknown persecution, been protected by law, an amendment to a previous Act of Parliament being introduced during the present session. It may, therefore, appear needless to point out the value of birds, they being recognised as useful and deserving of preservation; but their value is nevertheless not sufficiently known and so acknowledged as to lead to their encouragement, which is very different to a law passed to prevent their extinction. Of the various uses of birds in a garden I propose hereafter to treat, and hope to enlist such sympathy as to encourage their breeding.—G. ABBEY.

REMEDY FOR DAMP WALLS.

To equal parts of Portland cement and lime add a piece of soft soap, then apply. On stone I have found this resist all wet, so much so that to put on a second coat is impossible.—W. T.

I fear the application will not meet the case complained of at page 487, vol. xxvi., for the wall was that of a brick-built dwelling; and whatever coating was put on outside ought to be transparent, so as not to alter the character of the building in appearance, which I fear a mixture of cement and lime would do, as it must give a colouring. I may mention that soft soap was one of the ingredients with which a sort of rough varnish was made for coating the wall several times twenty years ago, without much effect. I forget now the mode in which it was applied; but I know some care was required to prevent air-bubbles, and I think alum was also used in addition to the soft soap. The composition was colourless, and did not alter the appearance of the brickwork. Some glutinous or resinous substance that would give body without colour and resist the weather would probably answer, only it ought not to be costly. Many glass structures require shading during extremely hot weather, and limewash and other materials now used are capable of vast improvement. A useful transparent wash for damp walls might give us a hint to use it elsewhere.—J. ROBSON.

SALISBURIA ADIANTIFOLIA.—I have a fine specimen superior to the one at Kew, that having lost one of its good branches. Mine is between 20 and 30 feet in height, if indeed not near to 40. My soil is sandy and dry, with a steep fall, fully ex-

posed to the south-west. Mr. W. Wilson Saunders always spoke of it with pleasure. When it was planted I cannot say, but I have lived here since 1855, when it was of a good height. It was planted, I presume, by Mr. Feskitt, who formerly lived here.—W. D. PAINE, *Reigate*.

EXCESS OF PEARS IN CANTERBURY, NEW ZEALAND.

ACCOMPANYING this brief notice is an illustration of a heavily-loaded branch of the little Swan's-Egg Pear, grown in my own garden, which branch should have been in an upright position had it not been for the weight of eighty-four Pears on it. Of this variety of Pear, its hardiness and adaptableness for the changeable climate of this part of New Zealand there needs no proof.—WILLIAM SWALE, *Christchurch, Canterbury, N.Z.*

[The photograph shows that the Pears were roped on the branch as Onions are roped.—EDS.]

NOVELTIES IN THE ROYAL GARDENS, KEW.

Is the stove *Amorphophallus campanulatus*, a very remarkable Aroid, has now an inflorescence, which is indeed curious. The club of the spadix is about 20 inches in circumference, and deeply crumpled. It is dark purple in colour, approaching to black, with a few irregular yellow spots near the top. The spathe is beautifully spotted on the outside. When in flower the odour exhaled is detestable. On another plant a gigantic leaf is being developed; it is now about 5 feet high, and when the divisions spread will be strikingly ornamental. This species is of medicinal importance in India, where it is also largely cultivated for food. The rootstock contains a large quantity of starch. It is of the easiest cultivation, does best in fibrous loam, and should be potted in April, or when indicating a desire to grow. While in active growth it requires water freely, but which, as soon as the leaf turns yellow, must be gradually withheld. It may be cultivated in an intermediate house. The inflorescence is rarely produced, except from large imported rootstocks.

Albucca minor in flower in the Cape house is very pretty, though belonging to a genus usually without beauty. The flowers are yellow, drooping, and borne on slender stems, the glandular appearance of which adds to the elegance of the plant.

Among Orchids recently open are *Thunia alba*, of graceful habit, the leaves of which are glaucous, the flowers white, and the lip marked with purple lines; *Stanhopea oculata*, a plant with seven spikes; *Dendrobium dioxanthum*, a beautiful yellow-flowered species, easily cultivated; *Acrides odoratum*; *Proemnea stapelioides*, interesting from the resemblance of the flower to a *Stapelia*; and *Dendrobium japonicum*, the flowers of which are white or pinkish white, and, though not of highly ornamental character, is worth cultivation.

In flower on the Rockwork are the following:—*Spraguea umbellata*, a plant of much interest from California, which though known for some time is not yet common. It may be treated as an annual or biennial. Sown early under glass it will bloom the same year. If sown out of doors it should be where the mature plants are required; although it will bear transplanting, it is better without that operation. *Lilium canadense*, "one of the first plants introduced to European gardens from America."—(Mr. Baker.) *Lilium Washingtonianum*, one of the most beautiful and distinct. The flowers are white and delicately spotted with purple. It may be known from all the other funnel-flowered Lilies by its having the leaves arranged in whorls. *Allium McNabianum*, a very pretty species, recently figured under this name by Dr. Regel. *Sedum scarpavivoides*, a plant now rare in cultivation, and often searched for in vain; *S. altissimum* is frequently sold for it. It has a rosette of broad leaves, and produces pretty flesh-coloured flowers. *Milla ixioides* (*Calliprora lutea*) is a very pretty Californian bulb, having an umbel of numerous yellow flowers. It prefers a peat soil. *Hutchinsia alpina*, a diminutive Crucifer, with pure white flowers, has been in beauty for a considerable time. It is a native of the Alps, where, we are told, it is gathered and eaten as a salad. We can find no confirmation in books. It is still worth a trial, as it would combine beauty with utility. The flavour is precisely that of *Cress*. Seed is sometimes offered as *Smelowskia alpina*.

In the bulbaceous ground *Funkia Sieboldiana* is very orna-

mental; it has bold glaucous foliage and strong racemes of large white flowers tinged with lilac. *Salvia chionantha* is one of the most ornamental; it has narrow leaves at the base, and the panicles are tall, bearing large pure white flowers; the branches are peculiarly slender towards the point. *Polygonum* (*Mühlenbeckia*) *complexum*, from New Zealand, forms a dense mass of slender black stems, with small round leaves. It is of trailing habit, and may be grown as a climber in the greenhouse. *Eryngium maritimum*, from its silvery spiny foliage, might surely be used with good effect in combinations of fine-foliaged plants.

Bouvardia triphylla, an old species with scarlet flowers, is very pretty in one of the beds in the Temperate house. It appears to do well planted out, and though not so valuable as some of the hybrids, it is still worth cultivation. A decoction of the branches is used in Mexico as a cure for hydrophobia, and it is said with considerable success.

THE SUSSEX ANCHOR HOOK.

Our illustration represents a very useful implement which, having used, we can speak of in the best terms. It combines the means of performing more than one operation; but the principal use to which it may be applied is that of a lawn-weeder, the forked ends of which being well adapted for eradicating Plantain, Cocksfoot, Hawkbit, Cat's-ear, Thistles, Dandelions, and other coarse-growing herbage. We have used it very much for this purpose, and have found it the best lawn-weeder we

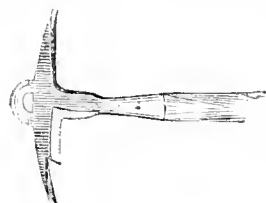


Fig. 11.

have ever had. Then there is a cutting edge on one side of the form of the letter L, which is serviceable for cutting over Thistles, Docks, Brambles, and other tall weeds, while at the end there is a semicircular blade to serve the purpose of a spud. It is a very handy and useful tool, and we heartily recommend it.

NOTES ON VILLA AND SUBURBAN GARDENING.

Those that have Asparagus beds just now, in the midst of the growing season, and while the soil is moist, should apply soakings of manure water with good portion of salt added thereto, taking the precaution of applying in due season stakes and lines to the outside rows at least, to prevent the heavy rains and winds breaking down the plants, which is very injurious to the crowns. Sea-kale, too, is particularly fond of manure water and salt applied, and this is the season of the year to assist it in forming strong crowns to ensure good cuttings of luxuriant fine-flavoured Kale another year; take care too that the crowns are duly thinned. Give every encouragement to late Strawberries by applications of manure water mixed with a good portion of chimney soot, which Strawberries particularly delight in. Such attention will prolong the bearing a considerable time. Keep the surface of the soil well stirred among the growing crops of Onions, or they may be seriously injured by mildew or maggot if showery weather continue to prevail. If the aphides make their appearance about the Carrot and Parsnip crops, dredge them well early in the morning with dry ashes, charred wood, or wood dust, or chimney soot, either of which are good drivers of these pests; but the three mixed together have a most beneficial effect, not only by clearing away the nuisance, but also in fertilising the soil and producing healthy luxuriant crops. If any of the Brassica family are infested with any of the above pestiferous vermin dredge them in a similar way, and if infested with root-maggot apply it in a liquid state. Continue to put out winter stuff in every spare piece or corner of land, and prick-out young plants for future planting. Do not allow either Peas or Beans to encumber the land after the bulk of the crop has been secured, but clear them away and crop with other articles, among which do not forget a portion of Leeks and Celery for winter use. Get a spare corner, too, well forked and pulverised in readiness for sowing the principal crops of Cabbage for another spring.

This has been a peculiarly trying season for the florist. Auriculas and Polyanthus must be kept well watered and free from insects, and shaded from the bright sunshine. Thrips, fly, and red spider are apt to make sad havoc on the leaves of the Polyanthus in such a season as this; nothing is better for eradicating these pests than syringing under the leaves with tobacco water, lime water, or clear soot water. Where the seed is ripe it should be carefully removed and kept in the seed vessels until sowing time in February or March. Carnations and Picotees will require rich waterings to give size to the

flowers, but if too rich expect the colours to run and be foul. Pinks may be struck by cuttings, and so may the forwardest of Carnations and Picotees, though layering is the surest process, unless you can command a nice gentle bottom heat and a tight hand-light. Ranunculuses should be raised when the foliage is quite withered, the roots separated before they become hard and brittle, and placed aside when properly dried in bags or drawers until planting time returns.

Peg down Verbenas, or insert short bushy twigs among them. Tie Dahlias and Hollyhocks. Look to climbing Roses on poles and chains in these windy days; clear away the decaying Rose buds from Rose trees; transplant from the reserve garden, so as to fill all vacancies. Sow early-blooming annuals for autumn flowering. Remove everything dying and decaying to the rubbish heap; mow and sweep, hoe and rake, and give to every place an appearance of neatness.

Achimenes.—There are few plants more beautiful or that will better reward the cultivator for any extra attention than the different species and varieties of *Achimenes*. I have had fine specimens of the grandiflora in bloom for six weeks, and they look as if they would continue to bloom in fine condition for as much longer. The longiflora, though not so fine with me as I have seen it with others, has also been beautifully in flower; whilst *hirsuta* and *pedunculata*, the latter with bloom little inferior to *picta*, are just showing their flower buds. One advantage which *picta* possesses over the others is, that it will grow and flower more freely in the winter months when placed in a stove temperature; but then all the others will flourish for a longer period in a greenhouse temperature. One of their great recommendations to amateurs of limited means, and to persons who wish to make a great floral display in summer and autumn, with but limited means for keeping-up a stock during the winter, is that during the cold months of the year as soon as done flowering, they require no attention more than keeping the roots dry and free from frost. My plan with these, as well as *Gloxinias* and several of the *Achimenes*, is merely to lay the pots on their broadsides, and pile them up in brick fashion in any snug corner below a stage. The *Achimenes* will stand a greater degree of cold with impunity than the *Gloxinia* will do, unless the roots of the latter are very dry, when they are apt to become so much shrivelled as to impair their future luxuriance. To preserve them safe neither of them should be exposed to a lower temperature than 35°, and if 40° is made the lower temperature so much the better. The roots will keep better in the pots in which they were previously growing, than if taken out and put away in drawers, &c. The soil to be equal parts of turfy loam and turfy peat, with an addition of about one-sixth part of silver sand, rotten dung, and lumps of charcoal in equal proportions, using more charcoal if the soil is not lumpy and full of fibre. It is a little matter whether they are grown in pots or pans, as though the roots are inclined to run shallow, I have found them at the bottom of the largest pots. Whether pots or shallow pans are used there should be no deficiency of drainage. To keep-up a succession of bloom as long as possible, succession tubers should be excited in February, April, and the end of June, or any time between those periods. If excited later they will be of small service to the amateur who has got nothing but his greenhouse, frame, or pit. There will be no difficulty in exciting any of them except the rot, and that difficulty will not exist with the amateur if he has a pit heated by any means except dung for his early Melons and Cucumbers. For accomplishing that object the scaly tubers should be shaken out of the pots and placed with a little earth about them in small shallow pans, and at once transferred to a situation commanding a temperature of 60° or 70° with abundance of atmospheric moisture. This can be as easily done in a dung-bed frame as anywhere else, with this difference, that after the plants have sprung and after they are potted and commence growing the frame must have a little air night and day, and in bright weather the plants require shading, or the action of the sun on the leaves of the young plants when covered with the dense vapours arising from the dung beds will mark them with brown blotches, which will mar their beauty, however well they may be grown afterwards. In moving the plants from the pans in which they were excited (which should be done when the plants are an inch or two in height), they may be transferred into small pots to be again shifted, or they may be put into their flowering pots at once, which is the method I prefer. In doing so some cultivators place the requisite number of tubers at regular distances over the pot, but in general, and especially with such sorts as *pedunculata*, *grandiflora*, *hirsuta*, &c., I prefer bringing all the growing ends of the tubers to the centre of the pot, and placing the other ends in a line to the circumference, like the spokes of a wheel, so that the specimen may resemble a single plant, and not a potful of suckers.—W. KEANE.

DOINGS OF THE LAST AND PRESENT WEEKS.

HARDY FRUIT GARDEN.

Two weeks ago we said that hush and pyramid fruit trees should be looked over and have the young growths shortened

back. A press of other work prevented us from doing ours until the end of last week, when a beginning was made. The young growths must not only be cut-back, but it is also highly desirable to thin them out. No good fruit can be produced from any variety of fruit tree if that is a thicket of wood. If Apples, or Pears, or any stone fruit of a hardy nature, is to be of good quality, it must be freely exposed to sunshine and air. The nature of closely-cut-in trees is to become crowded with wood, and many amateurs at the work are afraid to use the knife.

We have a fair crop of Apples, but Pears and Plums, the latter especially, are very scanty. Some of the Cherry trees have gummed badly. Correspondents sometimes ask for a cure for this disease (it may be called), for it is a disease even if it is induced by a rusty nail or tight tying. It is like the Vine disease, or rinderpest in cattle, though it is not infectious. The best way is to destroy the tree altogether when it is badly attacked. We have commenced to layer the Strawberries, beginning with Black Prince. This is yet the best for early work, and for this purpose should be layered in small 60's (2½-inch pots), and re-potted in a month after layering in 5-inch. They will be ready to cut from the plants in two weeks after layering, and generally in two weeks more may be potted into their fruiting-pots. We used to be very particular in mixing the compost that was used for potting into their fruiting-pots; but one season having on hand a large quantity of the soil that had been used for growing Melons, this was taken both for the layering of the runners in small pots and for the final potting, and gave most satisfactory results. Fix the runners in the pots with a small peg. When once the black aphid has taken a firm hold of any tree, it is very difficult indeed to destroy it. On the Morello Cherry trees they clustered in millions, and though the shoots were dipped in a solution of tobacco water and soft soap sufficiently strong to kill them, some escaped, but their enormous powers of reproduction soon brought forward a fresh supply.

Vinerias.—In a dry season like the present it is well not to overlook the outside Vine borders. When Vines are in healthy growth they require a large supply of water at the roots, and in dry districts with rainfall so much below the average that it has been this year, the Vines will suffer if the border does not receive two or three good waterings. Inside, the same attention is required. The Grapes have not yet commenced to colour in the late houses; when they do, some attention is necessary to prevent scalding. Lady Downe's is very much subject to this, especially if the house is kept close and moist. The opposite conditions to this will produce freedom from scalding—viz., plenty of air in the day with the surface of the borders and paths sprinkled with water twice a day in hot weather, and only once if the days are dull and cold, and that in the morning. In many gardens the appearance of the bunches of Black Lady Downe's is quite spoiled by inattention to admitting plenty of air at the time the Grapes begin to colour.

Pot Vines, as shown at exhibitions, and as seen in well-managed gardens bearing fruit, are not at all what they ought to be, the Vines making little wood, and bearing small bunches with badly-set berries. It is sometimes necessary to grow pot Vines for fruiting when young Vines have been planted, and a supply of fruit is required before they come into bearing, or for some other cause; but the practice is not to be recommended if it can be avoided. Where canes were started or eyes put in early, so that the wood would be ripened for early forcing next year, it will now be ripening. Still continue to give plenty of water at the roots, and syringe freely, maintaining a high temperature, and not until the leaves near the base of the Vines show signs of changing to a yellow colour should this treatment be altered; then more air should be admitted, the temperature ought to be lowered, and the atmosphere drier, the leaves will then gradually fall off. The Vines may then be removed to a cool house, and water given sufficient to prevent the soil from becoming dust-dry. Over-dryness destroys many of the small active fibres, which is no doubt the cause of many failures. The reverse treatment—standing them out of doors until the pots are deluged by the autumn rains, is equally injurious.

Peach House.—The routine work here is much the same as that detailed in previous numbers, though a few words may not be out of place as regards gathering the fruit; and having recently seen a quantity badly bruised by bad management, a hint to some may be useful. No fruit is more easily damaged than Peaches, it must therefore be carefully handled, gathered, and placed on cotton wadding at once, even if it has only to be carried as far as the fruit room. Should it be necessary to send Peaches a distance, a thick layer of cotton wadding should be placed in the bottom of the box, and a strip of wadding wrapped round each fruit, place it on its base, and lay them close to each other. The strip of wadding will prevent the fruit from touching.

PLANT STOVE.

Amongst the most useful of stove plants may be named *Ixoras*. The flowers last a long time in beauty, and the whole of the varieties are of free growth and easily managed. *I. coccinea* is one of the very best, so brilliant in colour. *I. javanica* is not

possessed of such richly-coloured trusses, but they are more freely produced; and very distinct in character is *I. Colei*, which does not seem to grow so healthily as some of the others, but which may be grown into good plants, as the very fine examples of it exhibited by the Messrs. Cole abundantly testified. The insect pests that chiefly favour *Ixoras* are scale and mealy bug. If the latter is not cleared from the plants before the trusses of flowers open, the bug will gather into the centre of the bunches, and cannot possibly be dislodged without spoiling them. Stove plants of this character should be well syringed under and over the leaves when in growth, which helps to keep them clean. *Eucharis amazonica* is also in full beauty, and not even *Phalanopsis* itself, the wonderful Moth Orchid, can surpass it in the snowy whiteness of its flowers. The plants with us flower about three times in twelve months. Pot in good turfy loam, with a little rotted manure and leaf mould added, also sand if the loam is heavy. The plants are grown in the stove, but when in flower it is best to remove them to the greenhouse, as the flowers are very fugacious if the plants are kept in heat; they will also last much longer if cut, taken indoors, and placed in water at once. Crotons are also amongst the most ornamental of our foliage plants, and they have within the last few years been introduced in sufficient abundance to satisfy the most ardent admirer of them; it is questionable, however, if any will become such great favourites as *C. angustifolium*, the Fountain Plant of India; its slender wavy leaves place it at the head of the list for graceful effect. *C. Weismannii*, *C. undulatum*, and *C. Youngii* may safely be added to the most select list. Nor should any stove be without a few of the best *Dracenas*. *D. ferrea*, *D. terminalis*, and *D. Cooperii* are the best of the old sorts, but they will certainly be displaced by the new introductions. The most unique amongst them is the new one introduced by Mr. W. Bull last year, *D. Goldiana*. It has its leaves much broader than any of the other species; these are dark green, and distinctly marked and barred with greyish white. *D. Regina* is also very distinct. *D. Fraseri*, *D. Mooreana*, *D. magnifica*, and others too numerous to mention, are very valuable acquisitions to our stoves. A fault with *Dracenas* is that they in the course of a few years become leggy by losing the bottom leaves. To prevent this, or rather a remedy for it, is to cut a notch in the stem at the base of the leaves, and wrap some sphagnum moss round the cut. If this is kept moist roots are emitted, and the stem can be cut quite through under the roots, when it may be potted. It has been a usual practice to allow the fires to go out for six weeks at least about midsummer. We did so this year, but some of the plants showed the ill effects of it this year, and artificial heat was again applied.—J. DOUGLAS.

TO CORRESPONDENTS.

•• It is particularly requested that no communication be addressed *privately* to either of the Editors of this Journal. All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably.

We also request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

SHAMROCK (*Scotch Thistle*).—You will find a life-sized plate of the Shamrock in "British Wild Flowers," No. 4, published at our office.

BRIAR OR MANETTI (*Jane*).—The Briar and Manetti Roses are quite distinct, and both are used as stocks on which to bud Roses. The former is the common Dog Rose, and the latter is so named from an Italian botanist. Worsted will do to tie buds, but cotton is more generally used.

RAISING SNOWDROPS FROM SEED (*W. L.*).—Mr. Robson did not doubt that snowdrops could be obtained from seeds when he mentioned that those which he had sown had not produced plants. Failure probably arose, he remarks, from birds and other enemies, or from the seed being simply scattered broadcast over all kinds of rough ground, most of it not touched either with the spade or hoe. He adds that during the past winter he has found the double snowdrop very useful for gathering for bouquets, although it does not multiply itself so fast as the single form, nor is quite so early.

STRAWBERRIES FOR FORCING (*Keens' Seedling*).—The best for forcing are Black Prince, President, Keens' Seedling, Vicomtesse Horticulteur de Thury, and Sir Charles Napier.

CHEMICAL PROPERTIES OF BURNT CLAY (*H. L. E.*).—Burnt clay not only improves the staple of a heavy soil by making it more workable, but thereby renders it more porous, so that the air can more readily penetrate. Those are not all the benefits, for burnt clay absorbs ammonia, not only from the atmosphere but from the animal manures decomposing in the soil, and retains it, and imparts it to roots of plants in solution in the rain water which reaches it.

TOBACCO WATER (*Idem*).—The simple prevention of its offensive smell would be to boil only as many of the stalks at a time as would make a quantity of liquor useable before it became putrescent.

PAPER FOR HOTBED FRAMES (*Newton*).—It is possible to render paper waterproof, and the following extract comes to us opportunely in reply:—"Common paper, by a very simple process, may be converted into a substance as strong as parchment, by means of sulphuric acid. The paper is simply dipped in the acid; but the acid must be of an exactly determined strength, and mixed with half its bulk of water. A sheet of paper dipped in this,

liquid is almost instantaneously changed in character. It becomes tough hard, and fibrous, but its weight is not increased, and it is far better for writing purposes than animal parchment. It can be rubbed better than paper, and almost as well as sheepskin; and it serves for vellum in book-binding, and for all legal purposes, as well as animal parchment, for strong binding, and as a substitute for bladders to cover pickle and jam jars; and any paper that has even been printed on may be converted, by means of sulphuric acid, into vegetable parchment. Paper can be made waterproof without giving it the character of parchment by dissolving 21 ozs of alum and 4 ozs of white soap in 2 lbs. of water; also, 3 ozs. of gum arabic and 6 ozs. of glue in 2 lbs. of water; the two solutions are to be mixed, and the sheets of paper dipped into the mixture while warm. They are then to be hung up to dry, and pressed. This paper is very useful for packages exposed to the damp, or for any purpose connected with the preservation of articles from moisture.—(Cassell's "Household Guide" for July.)

VIOLA (Tertian).—It is impossible to judge of the merits of your seedling *Pansy* from a dried single flower. Send a plant to the Floral Committee or to Chiswick.

OLD GOOSEBERRY AND CURRANT BUSHES (E. D. L.).—Cut out the young centre branches. Destroy half the bushes, and plant young ones this autumn, and destroy the other half and plant young ones in the autumn of next year.

GRASSES FOR COW FODDER (Wellington).—All the Grasses and Clovers, &c., you name are perennial except the Italian Rye Grass. We should have Perennial Rye Grass in place of the Italian, and not depend on one subject alone, but have a mixture. For your soil a suitable mixture would be two bushels Perennial (Pacey's) Rye Grass, one bushel Italian (best quality), Red Welsh Clover, 5 lbs.; White Clover, 4 lbs.; Alsike Clover, 1 lb.; Trefoil, 5 lbs.; and your soil being moist as well as light, you may add 2 lbs. Timothy Grass. The above quantities are a mixture for one acre. For early cutting the seed would be best sown in September, the land being in good tilth and clean. It may give four or five cuttings for forage the first year, and if left a second, being well manured, three or four.

SWAINSONIA SEEDLING CULTURE (C. W.).—Pot them singly in small pots, using a compost of three parts sandy turfy loam, one part sandy peat, half a part leaf soil and old dry cow manure, and one-sixth each silver sand and pieces of charcoal, with good drainage. Shade for a few days, and keep rather moist, syringing freely, so as to keep down red spider, affording an airy position. Shift into larger pots as soon as they are in bloom full with roots, keeping rather dry in winter, and encourage growth in spring with moisture. When shifting into larger pots be careful not to pot them below the seed leaves.

GRAPES MILDEWED (W. C. D.).—The Grapes not having commenced to ripen change colour you may syringe them, and whilst wet dust them with the flowers of sulphur, and you may free them of the sulphur by syringing before the Grapes change colour; but if they have commenced ripening you may cause the sulphur to adhere, as it will to the mildewed parts, by forcing it against them upwards with an instrument the same as is used for the application of tobacco powder, and which may be had of any dealer in insecticides. By all means apply fire heat, so as to enable you to ventilate freely, and coat the hot-water pipes with flowers of sulphur of the consistency of paint, brought to that with a soft-soap solution, 1 lb. to the gallon, applying to the pipes with a brush.

PLANTS FOR WINTER-FLOWERING (Novice).—You do not say whether you require the plants for in or out-door decoration. If the latter, you would see what Mr. Luckhurst in the number of July 2nd says on those; but as we apprehend you mean those for in-door decoration, our advice will relate to them. Few are the subjects you will be able to raise from seed—*Primula sinensis* in variety, *Cineraria*, *Cyclamen*, and *Mimnomette*. For blooming in winter, the *Cineraria*, *Cyclamen*, and *Primula* should be sown in March or April and the *Mimnomette* may be sown now. Intermediate Stocks are also good; seed should be sown at once. Of plants, *Camellias*, *Epicurises*, *Epiphyllum* var., *Eriogon gracilis* autumnalis, *rubra*, *melanthera*, *hyemalis*, *colorata*, *cuffra*, and *arbuscula*; *Coronilla glauca*, *Cytisus racemosus*, *salvia* *Heeri*, and *Chrysanthemums*. For early winter-flowering the Roman Hyacinth is very desirable, and you may keep up a good display with *Crocuses*, *Tulips*, *Hyacinths*, *Dielytra spectabilis*, *Spirea japonica*, *Deutzia gracilis*, and *Lily of the Valley*, introduced at intervals of three weeks from the beginning of January to March.

LILY—TUBEROUS-ROOTED GERANIUM (K. S. M.).—We do not recognise the Lily from your description. Send a specimen. It may be *Lilium Martagon* *sepalis albis*. The Geraniums are probably in the Royal Botanical Garden, Kew.

STRAWBERRIES ULCERATED (Perplezed).—We never saw the fruit similarly affected. Not knowing anything about the cultivation adopted, we can only suggest that the ulcers arise from want of sap. If so, copious watering with weak liquid manure might save the unaffected berries.

NAMES OF PLANTS (P. P.).—2, *Viburnum Lantana variegata*; 6, *Gerista triquetra*. We cannot name plants from leaves only, and the other flowers had dropped. (D.)—*Hedysarum coronarium* and *Astragalus major*. (P. Q.)—No. 1, *Juniperus Sabina variegata*; 2, *Abies Nordmanniana*; 3, *Cupressus macrocarpa*. (G. S.)—*Eryvum hirsutum*.

POULTRY, BEE, AND PIGEON CHRONICLE.

THE SILVER POLANDS AT READING.

I FEEL it but justice to the Judge at the Reading Show (Hants and Berks), as my two pens of Silver Poland have been criticised somewhat freely by the poultry press, to explain that when I entered the pens I intended to send a different pair in the pen priced £2 2s., and to which was awarded the first prize; but one of the birds was so ill that I could not send it, and therefore I had either to leave the pen empty, which does not add to the beauty of the exhibition, or substitute another pen; this I did, claiming them myself at once.

There will always be differences of opinion, and I apprehend the great majority of fanciers would disagree with the judgment at Reading, (I mean simply as regards the two pens, for

as I was not there I cannot say anything about the other competing pens), and place the highly commended pen first. I should certainly myself. Yet in some respects both the birds in the first-prize pen were superior to the highly commended pen; indeed, but for disease that in infancy attacked the cock in the first-prize pen and marred his development, I should consider him the better of the two. He is better coloured, better marked; and had the topknot been equally developed on each side, he would have been, to my thinking, altogether the better bird. The hen was larger than the highly commended hen; but otherwise the highly commended bird is a beauty, and greatly the superior. But to show that the pen is not quite so bad as some of the descriptions made it out to be, I may state that the cock had been exhibited three times previously, taking two first prizes and highly commended; whilst the hen was in my silver-cup pen at Chesham three years ago, and first at Lewes in the fall of the same year, and has not been exhibited since. I certainly consider the highly commended the better pen; but my opinion of their relative merits cannot be gathered from the prices attached to them. I may add that the hen in the first-prize pen was a spangled hen, and by some judges these are considered superior to the laced hen. I disagree with such a dictum; still it is held by some fanciers, and they have a right to their own opinion, and should they be judges at an exhibition, have a perfect right to carry it out. One paper remarks that the topknot of the prize hen was so white; this is well known to be the result of age, and should not militate greatly against a bird's chances of success.

I have felt it but justice to Mr. J. Bailly, whom I do not know except by correspondence, to state the facts of these two pens. Perhaps, after my explanation, it may be thought the judgment was less strange than the prices attached to the two pens would lead an outsider to expect.—JOSEPH HINTON, *Warminster*.

ESSEX AGRICULTURAL SOCIETY'S POULTRY SHOW.

THE annual Meeting of this Society took place at Stratford, on 30th June and two following days. The extraordinary confusion that prevailed with regard to the numbers prevented our publishing a prize list last week. The numbers in the catalogue differed in nearly all cases from the birds that should represent them in the pens; we could, consequently, give no accurate list of the owners of the winners. If the catalogue was wrong it could have been revised and the matter put right; but if, on the other hand, the birds were wrongly penned, which many circumstances led us to believe, we are at a loss to understand how the Judge accomplished his task; the usual "judge's book" would be useless, and he must have taken the cards in his hand and placed them on the pens as he made his selections. We had not an opportunity of inquiring, but we think this course must have been adopted, as the prize cards appeared generally in the proper places on the best birds.

Class 1, Dorkings. The catalogue contained four entries, but we could find only three pens of birds. The first number, 277 (Mr. Lingwood's), we could not here trace, but a pen of birds that should have appeared in this class we found with Cochins, pen 292. We at first thought they belonged to Mr. Watts from the fact of finding a basket numbered 280 underneath the pens; but on returning to pen 280 we found it occupied with a pen of birds marked third prize. Coming to the Cochins we find the third prize for Buffs given to a number which in the catalogue is shown in the next class, and belonging to Mr. Woodgate, while Mr. Woodgate's White Cochins, which we think should have occupied this pen, we found in pen 296, belonging to Mr. Malden, and marked first prize. Mr. Lingwood's Dark Brahmas, which we recognised, and which also obtained a first prize, were treated in the same way; we found them in pen 308, belonging to Mr. Levick. This was continued throughout the Show, which, under the circumstances, was fortunately not a large one, the total number of poultry and Pigeon entries amounting to only 218. We feel, from what we have referred to, it would be useless to attempt any detailed report of the judging, as we should probably fall into errors, and our remarks might do an injustice to many exhibitors, who, if they succeed in getting their birds correctly home, will at least have lost the satisfaction of seeing them in their proper positions in the catalogue.

BRAHMAS.

[We have received from Mr. G. P. Burnham, Melrose, Massachusetts, U.S.A., a letter, and a communication from him published in the *Philadelphia Fanciers' Journal*. We can only afford space for extracts. We decline re-opening the controversy about Brahmas, for fanciers have recognised them as a distinct breed.—Eds.]

"I enclose an article just published over my signature, correcting the strange errors committed by Mr. Lewis Wright in his lately-published "Illustrated Poultry Book," connecting me

with originating the name of the Brahma fowl, with which I never had anything to do, as you are probably aware."

"*Imprimis*, you will observe that I (Mr. Burnham) never laid any claim to this 'Brahma Pootra' misnomer. I did not make this name. I then called my fowls 'Grey Shanghais'—never by any other name, and simply for the good reason that Dr. Kerr, who sent me my first pair from Philadelphia, September 3d, 1849, in his letter said, 'Though they are called 'Chittagongs' (precisely as Mr. Cornish called his at first), they came into Pennsylvania, from Shanghai, China.' My second lot of Light Greys were procured in 1851 through W. T. Porter, Esq., Editor of the *New York Spirit of the Times*, from on board a ship at New York, direct from Shanghai, China. I then had other Chinese fowls of different colours, but these last were light grey. What else could I properly call them, but what I did—viz., 'Grey Shanghais'?"

"And here let me quote what Dr. Gwynne, of England, says: 'I obtained of Dr. Bennett, of the United States, five pairs of these birds. Three of these ten fowls only had compressed pea-combs; in none of the others was this found, nor could I recognise in them anything but what could be found in the Shanghai birds. I had several communications from Dr. Bennett, and in reply to all my inquiries, directed to learn the cause of naming as 'a new breed,' birds, most of which were essentially Shanghais in shape and character, I could gather no information but that the difference of colour between these and other Shanghais precluded their being thus classed; but I cannot accept this as adequate proof of 'Brahma Pootras' being a 'new breed,' and therefore prefer the conclusion that they are identical with the Shanghais, and only a new variety of that fowl. Another circumstance which confirms me in this view, as to the identity of these birds with the Shanghai breed, is the fact that the fowls recently presented to Her Majesty by Mr. G. P. Burnham, under the name of Grey Shanghais, are admitted by Dr. Bennett to be precisely similar to his own; and Mr. Burnham assures me that the original stock from which the 'Grey Shanghais' presented to Her Majesty were bred, was imported by himself, through Dr. Kerr, of Philadelphia, direct from Shanghai.'

"Thus I continued to designate my fowls long years after Dr. Bennett fixed 'Brahma Pootra' first, and then 'Brahma' for his birds, though at that very time (1852) Dr. Bennett voluntarily wrote Dr. Gwynne as above, which was the true statement, but which I do not find in Mr. Wright's account."

FATTENING CHICKENS BY MACHINERY.

It seems to be generally admitted by gourmands that no chickens of mechanical fattening have such exquisite flavour as those submitted to the process. In the Gardens of Acclimation at Paris this is very scientifically practised under the direction of M. Odile Martin. "Its advantages," say the authorities, "do not consist in the rapidity of the process alone, but above all in the special quality of the meat thus produced. It is solid, very tender, exceedingly fine-grained, not overfat (which would not be an advantage), very white in colour, and of a flavour quite exceptionally excellent." If this is so, of course there is no help for the chickens. They must perforce enter their *épinettes*, and be mathematically crammed. Here is the ingenious contrivance of the Gardens of Acclimation for manufacturing this "exceptionally excellent" flavour:—

It is a huge cylinder with fourteen faces, each in five storeys of three compartments each. It holds, therefore, 210 fowls. The cylinder is hollow and empty, except for the axis on which it turns. This hollow construction renders it easily ventilated and kept clean. Before it is a box for the operator. This box, or carriage, moves up and down by pulleys. The *gaveur*—that sounds less offensive than crammer—operates thus: Commencing at the bottom of one of these fourteen faces, he seizes with his left hand the neck of the chicken; and pressing on each side of the beak, the bird is forced to open its mouth, as any lady knows who has doctored a sick chicken or Canary. The *gaveur* then introduces the metallic end of the rubber tube into the throat of the chicken, and by a pressure of the foot on a pedal the food rises, and at the same time the amount passing through the tube is indicated on a dial in front of the operator. It is, therefore, a skilful operation; for the *gaveur*, whatever other motions are necessary, must pay strict attention to the needle on the dial, or he will give his chicken too much or too little. The three chickens duly fed, he turns the cylinder on its axis a little, and the next face of it is before him. When he has completed the round he turns the crank, and the carriage rises to the next storey; and so he goes on to the top. Having completed the upper circuit, every chicken in that *épinette* is duly fed. Then he turns the crank in the other direction, and the carriage descends to the floor, where it rests on a railroad. It is then moved along before the next *épinette*, and the whole operation on 210 more chickens is repeated. A skilful operator will *give*, or cram, four hundred chickens in an hour! That is less than nine seconds to each one; for the time to move the

cylinder, to move the carriage up, down, and to the next *épinette*, must be counted out.

Under this *épinette régime*, it requires an average of fifteen days to fatten a Duck, eighteen for a chicken, twenty for a Goose, and twenty-five for a Turkey. The food used for chickens is barley and corn meal mixed with milk into a dough so thin that no other liquid is necessary. The ordinary quantity given is from ten to twenty centilitres, or from seven-tenths to one and four-tenths of a gill each time; but this quantity is reached gradually. When the maximum that any chicken can assimilate is found, the number indicating this quantity is placed before its compartment, and the *gaveur* must measure it exactly on the dial. Truly this is an age of wonders. What a labour-saving invention this *épinette* must be to the chickens! Maybe it is not wise to give these details. What if some enterprising American should be thereby tempted to invest his whole fortune in a grand improved automatic steam-power *épinette*, warranted to feed ten thousand chickens a minute!—(*Harper's Magazine*.)

SPALDING POULTRY SHOW.

TURNER's pens were used and placed under a grand tent, and all were well attended with both food and water, Mr. Boyce being the person in charge.

Dorkings had but three entries, Mr. Lingwood landing first, and the Rev. Mr. Bartrum second. In *Game*, we are sorry to state that Mr. Matthews's grand cock, which was otherwise in the finest possible bloom, had had his wing injured on the way to the Show, and was in consequence sent home, a good Brown Red from Edinburgh winning first; while the Boston cup cock was placed second. In Black Reds the first, though best, had a Daw eye; but the first was an extra good one in hens, the second also being too light in eye. In any other variety, the first was a Duckwing with a grand head but rather dark back; second also a Duckwing. The first in Buff *Cochins* was much faded in colour. In the next class the cup was well awarded to a good pair of Whites, the second also being of that colour, Messrs. Crabtree having only the cock in the pen; but in the next class, the cup for *Brahmas* was awarded to a good pen from that yard, the second in the class being fine chickens in all respects of size, symmetry, and colour. *Brahmas*, Light, poor; but *Spanish* very good, but one of the grossest mistakes in the Show, for there were no two opinions here as to how the awards should have been made, the second being by far the best. In *Hamburghs* the decisions of the previous were mostly reversed, as also in *Polands*. In *Hamburghs* the cup went to Golden-pencils, which were only highly commended at Boston; and in *Polands* the Golden-pencilled was placed before the Silvers, which is decidedly wrong. In *French* fowls the first prize pen of Crèves contained one of the best hens we have ever seen; the second being a very good pair of Houdans.

In *Ducks* there was a mishap, for the cup for the best pen was not awarded till after the Judge had left, but was eventually satisfactorily placed upon a nice pair of Bahamas.

There were six classes for *Bantams*, all being single birds. The first in Brown Reds was a coarse-headed bird but capital in colour. The second, a chicken, had a grand head and eye, but was rather light in breast. The highly-commended bird being about the best in the class. In hens, a grand pullet was awarded first, and the second was the cup hen at the Palace, but rightly placed here. In Black Red cocks again the awards were reversed, and we have no hesitation in stating this was altogether wrong, the cup bird, although not a bad one, losing somewhat in head, and even much in colour. The Acerrington cup cock coming second. First in hens a grand old bird only highly commended at Boston; but we were surprised to see Pen 101 passed unnoticed, for this was the most stylish hen in the class. No. 103, highly commended, the best colour in the class. The second-prize hen looking as if it had been trimmed over the eyes. Any other colour cock, first was a good Duckwing well placed; second a good Pile; and cup cock at Boston only highly commended here. Mr. Hall showing a real good Duckwing in hens, which was, however, beaten by the Boston first. Second a Pile of good properties. In Black Bantams we should have placed Mr. Reed's birds first and cup, Ashton second, and have highly commended the cup pen. The R-v. Mr. Tearle was first and second with good birds in Whites. In the next class for cocks and in hens, a Pekin was first, and Silver Sebright second.

In *Rabbits* and *Pigeons* the entries were exceedingly good, and we thought we recognised some of Mr. Fulton's grand stud. We are, however, open to correction, as that gentleman's name was not to be found in the catalogue.

DORKINGS.—1, Henry Lingwood, Barking, Needham Market. 2, Rev. E. Bartrum, B-rkhamstead.
GAME.—Brown breasted Reds—Cock—1, Dr. Harley, Edinburgh. 2, H. E. Martin, Southorpe. Hen.—1, H. E. Martin.
GAME.—Black-breasted Reds—Cock—1 and Cup, W. J. Pope, Biggleswade. 2, Mrs. Deacon, Dundi. C. J. F. Hollingworth. Hen.—1, S. Matthew, Stowmarket. 2, Dr. Harley.
GAME.—Any other variety—Cock—1, E. Winwood, Worcester. 2, J. A. & H. H. Staveley, Driffield. Hen.—1, S. Matthew. 2, J. A. & H. H. Staveley. 3c, W. Barker.

Laced *Bantams* were bad; while there were some good Blacks. In Game Bantams the first was carried off with a stylish pair of Black Reds; second a pen of Pile chickens; and extra second a good pair of Black Reds.

Turkeys large, the first prize hen a very fine one. *Geese* also large, but all irregular in colour. In both classes of *Ducks* were some good ones, and the solitary pair of Blacks in the Variety class were of rare quality. In extra stock was a very good pair of Rumpless fowls, a variety not often seen so perfect as these.

Pigeons were a grand display, every class containing high quality, Mr. Horner carrying off most of the prizes offered with birds in capital bloom. In Carriers both were Duns, the first heavy birds; and second of this year. English Owls were a good even lot, the first being grand-headed birds. In Magpies an extra second was given, the class being very good. A pair of Blue African Owls won in the Variety class; the second being a pretty pair of Pigmy Pouters.

Only one class was provided for *Rabbits*; an amateur giving a cup, which also succeeded winning with a handsome Black-and-white Lop buck.

CARLIERES.—Young—1, W. Massey, Spalding; 2, W. Bulmer, Spalding, *hc*. Mr. Warren, Spalding (2); W. G. Hamock, K. (ford; W. Salazar, Spalding; H. Yardley, Birmingham. *cc*, W. Massey; S. Warrell; W. Minson; H. B. Massey.

CASHIERES.—Black—Cock—1, H. Yardley, 2, G. Hammock, *hc*, R. Cant.

W. Massey Hen—1 and 2, W. G. Hammock, *etc*, R. Cant, Brompton Road, London, *hc*, R. Cant; W. Bulmer, *c*, W. Massey; H. Yardley.

CASHIERES.—Any other colour—Cock—1, A. Storrer, Peterborough. 2, W. Massey *hc*, R. Cant; W. G. Hammock, Hen—1 and 2, W. G. Hammock, *hc*, W. Massey; A. Storrer; J. H. Ivimey, Ellersfield, Basingstoke, *c*, H. Yardley.

POULTERS.—Cock—1, H. Pratt, Hampton-on-Arden, 2, H. Simpson, *hc*, R. Cant (2); W. Nottage, Hen—1, W. Nottage, 2, Mrs. Ladd, Calne, *hc*, R. Cant, *c*, R. Cant, H. Pratt (2); H. Simpson, Spalding.

TUMBLERS.—Bills and Beards—1, R. Cant, 2, *hc*, and *c*, W. Woodhouse, King's Lynn. *c*, T. Holmes. Any other variety—1, W. G. Hammock, 2 and *hc*, R. Cant, *c*, T. Yardley; W. G. Hammock; R. Cant.

BARS.—1, G. Hamock, 2, W. G. Hammock, *hc*, H. Yardley, *hc*, W. Massey.

Young—1 and 2, M. Cave, Spalding, *hc*; H. Yardley, *c*, W. Massey.

JACOBIENS.—1, R. Cant, 2, W. G. Hammock, *hc* and *c*, J. Young, Bishop Auckland.

TRUMPETERS—2, R. J. Smith, Yarm.
OWLS—1, R. Cant, 2 H. Yardley, C. J. Young.
DRACOONS—1, W. G. Hammon, 2—Yoeft, Spalding, C. H. Yardley.
ANY OTHER DISTINCT VARIETY—1, H. Yardley, 2, J. Young, C. - Barnea.
SELLING CLASS.—*Price not to exceed 4.8-1*, Miss E. Pickworth, Moulton
Marsh 2, H. B. Massey.
SELLING CLASS.—*Price not to exceed 60s-1*, H. B. Massey, 2, P. Hutchinson,
Spalding. *etc.* J. W. Massey, C. R. W. Atkinson, Spalding; P. Hutchinson.

CANARY.—1 and 2, Knight & Spencer, Ardesley Siding. *hc*, J. N. Harrison, Belpor.

LINNET GOLDFINCH, OR OTHER ENGLISH FINCH.—1, J. N. Harrison. 2 and *hc*, Knight & Spencer. *c*, L. Belk, Dewsbury.

BLACKBIRD.—1 and 2, W. A. Jonsdoss, Boston.

PARROT, PARAKEET, LOAT, OR OTHER FOREIGN BIRD.—1, C. K. Morris, Spalding. 2, J. R. Capps, Spalding (Bird-regars). *hc*, G. E. Storr, Boston (King Parrot); J. R. Capps, Spalding (Parrotet).

HEAVIST = J. A. Bowman, Groves, York. 2, R. Buffham, Spalding. *hc*, P.
Booth & F. Wass, Boston.

LUP-EAB-D-1, *etc.*, and c. F. Banks, Doughty Street, London. 2, J. Hume,
York. *hc*, R. A. Bosquier, T. Garner, Kington (cpa).

MAL-B = J. L. Lloyd, 60, St. John's Road, Albany, York (Angra). 2, A. W.
Whitcomb, Northampton. 3, M. Marsland. *etc.* Miss A. Mortimer, Rulhiell,
Rye (silver Grey); G. Beekley, Sheppard's Bush. *hc*, J. C. Pitgrim, Hunckley
(Humalay); M. Marsland, Gole; T. Garner. G. Beekley (Silver Grey),
G. B. Pitt, 18, The Grange, York. 2, A. T. Allard, Pinchbeck (Silver
Grey). *hc*, W. Beetey, J. T. Tedder, Spalding.

At the annual Show held at Ripon July 3rd, poultry and Pigeons were allotted a section, but the prizes were small, and it is a matter of surprise to us that so many entries can be got for the amount; yet this proves the popularity of the Society, and is sufficient guarantee that with a good list the poultry and Pigeons would become a self-supporting and very interesting portion of the programme. The pens were borrowed from the North-Harston Society, whose assistant was in close attendance the whole of the day; and the birds well fed and watered.

Of *Game* there were ten pens, but only three of any quality; the first *Duckings*, and second *Brown Reds*. *Spanish* were moderate, the hens good. The positions at *Tairak* being reversed the first hen having attained considerable condition meantime. *Dorkings* and *Brahmas* were poor; only one good pen of *Crève-Cœur*s was sent. *Polands* pretty good, the winners *Golden Cocks* very poor, except the first-prize *Buff* hen; the second being *Black*. There were some fair *Hamburgs*, the best were the *Golden-pencils*; the first going to a splendid cock about perfect in all respects, and a pretty fair hen; second a good cock in all respects, except that his tail was too red, but the hen better. Pen 332, very highly commended, had by far the best hen, but the cock had a horrid comb, and nearly a black tail.

PIGEONS.

CARRIERS.—1, E. Horner, Harewood, 2, G. Sadler, Boroughbridge. *hc*, W. Bodily, Ripon; A. & T. Wells, Ripon; S. E. Seaton, Leeds.

TUMBLERS.—*Atwood*—1, E. Horner 2, S. E. Seaton. *Any variety*.—1, E. Horner 2, W. Bodily. *hc*, A. & T. Wells; W. Scott, Grantley. *c*, G. Akers, Fishergreen, Ripon.

POUENES.—1, E. Horner, 2 and *hc*, A. & T. Wells.

WALKERS.—1, E. Horner, 2, S. E. Seaton. *vhc*, Hellwell & Ingham, Halifax. *hc*, J. Walker, Ripon. 2, Horam, jun. Ripon (2).

JACOBIANS.—1, Hellwell & Ingham, 2, E. Horner. *c*, R. Close, Studley, Ripon.

FANFAILS.—1, J. Wetherill, Northalberton, 2, E. Horner. *c*, A. & T. Wells. *Ones*.—*English*—1, S. E. Seaton, 2, Hellwell & Ingham. *hc*, G. Sadler; J. E. Crossley, Halifax. *c*, E. Horner.

TRUMPETERS.—1, E. Horner, 2, Hellwell & Ingham.

BARS.—1, E. Horner, 2, E. Horner, 3, E. Seaton. *c*, T. Horam, jun.

TROUBLES.—1, E. Horner, 2, R. Bland, Bridge Hewick.

NUSS.—1, S. E. Seaton, 2, E. Horner. *hc*, A. & T. Wells (2).

DRAGONS.—1, E. Horner, 2, A. & T. Wells. *c*, I. E. Crossley.

MAPIES.—1 and Extra 2, E. Horner. 2 and 1, S. E. Seaton. *vhc*, W. Scott, Grantley. *hc*, C. J. Garnett, Fawcra, Ripon.

SWALLOWS.—1, E. Horner, 2, A. & T. Wells. *c*, S. E. Seaton.

AND NEWLY DISTINGUISHED VARIETIES.—1, E. Horner, 2, S. E. Seaton. *vhc*, A. & T. Wells. *hc*, J. E. Crossley, E. Horner.

SELLING CLASSES.—1, A. & T. Wells. 2, E. Horner. *hc*, A. & T. Wells (2); J. E. Crossley; J. Smith, jun, Ripon (Black Tumblers). *c*, W. Mallinson.

RABBITS.—1, D. & W. Boden, West Harlepool, 2, E. V. Donaldson. *hc*, H. Walker, Ripon.

The Judge was Mr. E. Hutton, Pudsey.

The amateur Pigeon fanciers among your readers may take a hint from the following incident. On visiting my aviary this morning I was much vexed at finding that a pair of high-bred Almond Tumblers had so neglected their family duties that the survivor of a pair of their offspring, a week old, was just dying of starvation and cold. At first I thought it was actually dead, and picking it out of the nest pan I "laid it out" on a shelf, determined "to bury it decently," and swallow my grief. A moment afterwards it gasped faintly, and a sudden thought struck me, Why shouldn't I try an experiment? Catching up my little patient I hurried into the kitchen, and calling for a flannel pet—a piece of flannel—I wrapped it carefully round the dying bird and popped it into the oven, cautioning the cook not to bake it alive.

In another minute I was off to "the daily grindstone," and on my return home to luncheon cook came to me as soon as I was inside the house, bearing in triumph my poor little bird still wrapped warmly up in the flannel, but now as lively as a

squeaker could be, and ready to peck my fingers' ends off in search for milk. I popped it back at once into the nest pan, and the old birds were so delighted with the resuscitation of their baby that they set to work and fed it handsomely. To-night I have slipped it under a Baldpate, and have taken a young one from the latter to put in the oven.—T. F. S.

THE POULTRY-KEEPER.—No. 10.

LA FLECHE.

HEN—CHARACTERISTICS.

Of rather smaller size than the cock. Firm and confident walk. Eye lively and bold. Body slender, rounded-off. Legs of middle length, strong and sinewy; all the fleshy parts well developed. Flesh fine and abundant. Head strong, beak strong. Feathers of the abdomen thick, but slightly spread-out. Plumage black. (See fig. 12.)

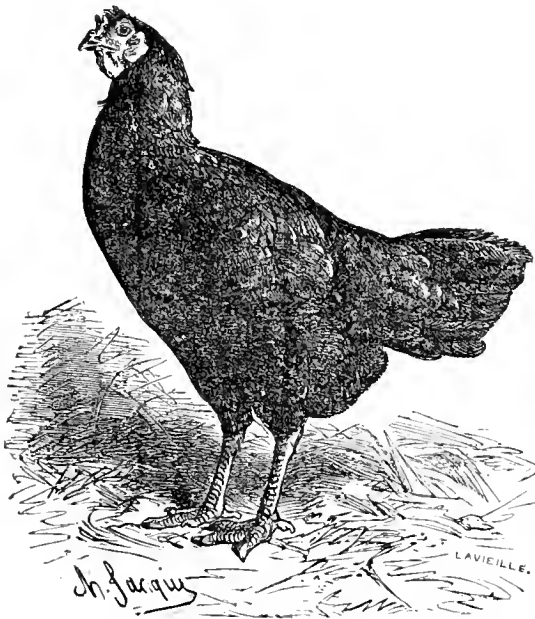


Fig. 12.—La Fleche Hen.

Weight.—At full age 6½ lbs., and sometimes 7½ lbs.; as a fat chicken, 8½ lbs. to 9 lbs. 14 ozs.

Stature—From the upper part of the head to under the feet, in an ordinary position, 17½ inches; from the back under the feet, 14½ inches.

Head—Long, strong, having all the characteristics of that of the cock, but smaller.

Comb—With very small horns, but very noticeable from their inclined position in front.

Wattles—Much rounded, 1½ inch long.

Ears—White, and very apparent by their decided colour and the large space they occupy.

Nostrils—Like those of the cock.

Beak—Strong and long.

Eye—Of the same colour as the cock's.

Physiognomy of the Head—Very sharp and very sprightly, much like that of the cock. Its comb in the form of horns causes it to have the local name of "The horned hen."

Foot—Strong, of middle size; toes solid and long.

Feathers—Pretty abundant and compact on the body, but behind less developed. All the feathers of the body shiny, black, iridescent with violet and green, with the exception of those of the abdomen, which are greyish-black; feathers of the legs are a dull brown black.

Laying—Good and precocious, the eggs of a large size.

Sitting—A non-sitter.

BOSTON (LINCOLNSHIRE) POULTRY SHOW.

Most favourable weather fortunately ushered in the morning of the Show; but even had it by mischance proved the reverse, ample provision had been made by the Boston Committee for the security and accommodation of the largest and best collection of poultry ever consigned to their care. An extraordinary attendance of visitors was the result, and we heartily congratulate the managers of the Show on the well-earned success of

this year's undertaking. The classes opened with Grey Dorkings, and, strange to say, with an entry of only three pens in both classes. These were, however, very good, both the cock and also the hen shown by Mr. Moffitt being particularly so. But why so limited an entry? The Buff Cochins were almost as small in numbers, Mr. Crabtree winning with a cock shown in the highest condition and feather, but still not nearly a first-class specimen, being grizzly-winged, and not the even colour it might be expected in a first-prize fowl; he had, however, none to dispute his honour. Mr. Crabtree's prize Buff hen was an exceedingly good one, but now fast dropping into moult. It is not the best policy to exhibit her too frequently now whilst the plumage is being reproduced if her future successes are to be fairly consulted. She is a good specimen, and well deserves care. In the next class the rivalry was strong, and here again Mr. Crabtree won first and extra plate with a grand-feathered Partridge Cochins cock, with a quality of plumage as though just moulted for a Christmas show, and yet they are his old feathers, and of late he has spent nearly the whole of his time either on the rail or in the show pen. He appears to be one of those strong-constituted fowls nothing will injure. A very fine White Cochins of Mr. Whitworth's took the second prize, the latter exhibitor also taking first with a very fine White Cochins hen. With the exception of the two prize Dark hens the *Brahmas* have certainly been better represented at former Boston shows. The *Spanish* could not be expected at this season to show to especial advantage. Mr. Beldon's prize cock, however, was of the highest quality of face, and in very respectable feather; all the others were coarse in face and mostly out of all show trim, whether cocks or hens. *Hamburgs* proved exceedingly good, Mr. Beldon keeping mostly to the fore. The Committee, however, would do well, if they cannot give separate classes to every variety, to reconstruct their prize schedule, so that the Pencilled might compete together, and the Spangled follow the same course, as having Pencilled and Spangled in the same class is a decidedly awkward arrangement. *Game* were few, but some were decidedly good, especially Mr. Martin's Brown Red pen.

We regret to have again to call attention to one of the most ill-judged arrangements that railway officials can possibly arrive at—viz., putting fox terriers and poultry or Pigeons in the same van during transit, as any reflecting person must expect nothing but mishap can ensue from such mistaken saving. In this case one of the fox terriers, under the influence of the hubbub around him, sought his own pleasure during the journey to the Show in ripping-up the basket and worrying one of Mr. Fletcher's best *Game* cocks, a bird that no doubt, even in angry battle, would easily have held his own against any feathered biped, but was now quite outmatched by his vicious quadruped opponent. It had become so lacerated during the *melée* that its destruction was a matter of compulsion. When will railway officials consult their own credit and their employers' interest by abandoning this foolish save-penny arrangement? It is certainly time they did so, as such annoyances are constantly occurring, and often in cases where money cannot replace the loss.

The *Game Bantams* were among the best classes in the Show tent, Mr. Entwistle being there, as last year, with a very fine collection, securing almost all the prizes, but missing the extra plate Bantam prize, which was awarded to a capital Red Pile cock of Mr. Fletcher's. The Local class Any variety, restricted to residents within fourteen miles of Boston, was a decided failure, the first prize going to Silver-spangled, the second to Golden-spangled *Hamburgs*, both very poor, the birds being scarcely worth the prize money awarded to them. *French* fowls were of high merit, the *Crève* being in the ascendant. Some of the best of Golden and Silver *Polands* were present, and obtained great successes.

Geese and *Turkeys*, always a short entry about midsummer as to numbers, proved meritorious. The *Aylesbury* and *Rouen Ducks* were good, especially the first-prize *Rouen Ducklings*. A pen of singularly well-plumaged *Vidua* *Whistling Ducks* stood ahead in the Variety Duck class, and a very fine-grown pen of White *Muscovy Ducks* were the winners of the second prize.

Appended are the awards for Pigeons and Rabbits, which did not arrive in time for publication last week along with those in the poultry classes.

PIGEONS.—The entries of these were quite equal to those of poultry, Mr. Fulton carrying off most of the first prizes. In *Carrier* cocks the same exhibitor succeeded in taking both the first and second prizes, Mr. Yardley's bird losing owing to want of condition. In *Pouters* the first prize went to a grand Blue, the second to a Yellow, and the third to White, the whole being good in all points; and in *Tumblers*, Almond, the colour and marking of the first and third were most exquisite, the head properties being also good, and the second was a grand bird. In *Balds* and *Beards* Mr. Woodhouse won five out of the six prizes with excellent stock. In Any other variety all the winners were *Agates*, and in *Barb* all three were Black. For *Turbits* Mr

Gardener was first with a nice Yellow, and ought also to have attained the second place with a Blue, the second being the third best. Jacobins were a splendid class, not one bad bird being shown; the first and second prizes were Reds, and third Blacks. In Fantails Newark was again to the front, and the class very good. Dragons, first a grand Blue, second a good Blue, and third Red, splendid in colour, but not quite up to our ideas of a good Dragon in other respects. Antwerps were well placed, all the winners being Silver Daws, and very good as Short-faces. A White African Owl won the first prize, and most deservedly the piece of plate in the Variety class. A nice Nun was second. There were classes for local competition in both poultry and Pigeons, and some of the birds were very good.

PIGEONS.

CARRIERS.—Black.—Cock—1 and 2, R. Fulton. 3, H. Yardley. Hen.—1 and 3, R. Fulton. 2 and 4, R. Cant. Duns.—Cock.—1 and 3, R. Fulton. 2, R. Cant. Hen.—1 and 12, R. Fulton. 3, H. Yardley.
 Pouter.—Cock or Hen.—1 and 2, R. Fulton. 3, J. E. Palmer.
 TROUSERS.—Almond.—1 and 3, R. Fulton. 2, J. E. Palmer. 4, J. Ford; H. Yardley. c, J. Gardener; J. Ford. Short-faced Bards.—1 and 2, W. Woodhouse. 3, R. Fulton. 4, J. Ford. Short-faced Beards.—1, 2, and 3, W. Woodhouse. Any other variety.—1, R. Fulton. 2, R. Cant. 3, J. E. Palmer. 4, R. Cant; J. Baker; R. Fulton. c, A. M. H. Silvester.
 BARS.—1 and 2, R. Fulton. 3, H. Yardley. 4, J. Young.
 TOGETHER.—1 and 2, J. Gardener. 3, J. Baker. 4, J. Young. 5, H. Yardley; R. Fulton.
 JACOBS.—1 and 3, R. Fulton. 2, W. Woodhouse. 4, J. Young; G. F. Clario.
 FANTAILS.—1 and 3, J. E. Loversidge. 2, R. Fulton. 4, W. H. Tomlinson.
 DRAGONS.—1 and 2, W. Smith. 3 and 4, R. Fulton. c, H. Yardley.
 ANTWERPS.—1, J. Gardener. 2, H. Yardley. 3 and 4, J. Crossland, jun.
 ANY OTHER VARIETY.—1 and 3, R. Fulton. 2, J. Young. 4, J. Nield; H. Yardley; J. Young; A. M. H. Silvester; F. Teel.
 SELLING CLASS.—1, G. Baves. 2, H. Yardley. 3, J. Nield.
 LOCAL CLASS.—Any variety.—1, R. Baffham. 2 and 3, T. H. Dows.

RABBITS.

LOP-EARED.—Black and White.—Buck or Doe.—1, F. Banks. 2, J. Hume. 3, T. Aytton. Blue and White.—1, Withed. 2, F. S. Lacey. Yellow and White.—1, W. Allison. 2, G. S. Barton. Grey and White.—1, 2, 3, 4, Lark. 5, Waartou. Tortoiseshell.—1 and 12, F. Banks. 3, T. Aytton. 4, C. King. Any whole colour, except Tortoiseshell.—1 and 2, F. Banks. 3, J. Armstrong.
 HIND-LEAVES.—1, W. Whitworth, jun. 2, C. King. 3, J. Hallas; J. H. Brand. 4, T. H. Dows.
 SILVER-GREY.—1, Miss Mortimer. 2, T. H. Dows. 3, J. Hallas; J. H. Brand. 4, Miss Rivett Carnac; J. Hallas.
 BELGIAN HARE.—1 and 2, T. H. Dows. 3, J. Hallas. 4, T. H. Dows. 5, S. H. Whelan. c, A. C. Wiseman.
 ANGORA.—1 and 2, W. Whelan. 3, G. S. Barton. 4, S. Ball.
 ANY OTHER DISTINCT VARIETY.—1, J. Hallas. 2, T. H. Dows. 3 and 4, J. Irving.
 HEAVIEST.—1, R. Baffham. 2, Mrs. Wass. 3, Master J. W. Capps.

Mr. Edward Hewitt, of Sparkbrook, Birmingham, was the Judge.

CARE OF YOUNG CHICKENS.

AFTER the newly-hatched chicken emerges from the shell, it is wet all over, and each tuft of down is enclosed in a very thin membranous sheath, but as the chick dries with the warmth of the hen, the down expands and assumes that appearance so fascinating to all young amateurs. Chickens do not require food for at least ten or twelve hours after hatching, during which time they should be left with the mother entirely undisturbed; they require the heat of the living body to nourish them, and it would seem to impart vitality to them which no artificial warmth can do.

The first food of young chickens should consist of eggs boiled hard and chopped up, mixed with double the bulk of bread crumbs, and the whole slightly moistened with milk; this they will pick up quite freely as the appetite begins to sharpen. At first they will eat very little, and seldom drink any during the first day; but provided they are tolerably strong on their legs, and lively, nothing should be done to induce them to eat beyond placing food and drink before them. If anything comes naturally to animals of any kind it is eating, and therefore any attempt to teach chickens this act is a work of supererogation. Some people still entertain the idea that it is necessary to remove the horny scale which is to be found on the beak of nearly every newly-hatched chicken, by means of which it breaks the shell, with the thumb nail; but this is not at all necessary. Nature never provides any animal with an appendage which it is necessary to remove by artificial means. It will of itself drop off in due time. If any of the newly-hatched chickens show debility, it would be well to supply a stimulant, and a little raw egg beaten up with brandy may be given. After a few days the chopped egg and bread crumb may be discontinued, and a regular dietary scale commenced.

Ground oats, oatmeal rather coarse-ground and mixed with about one-third barleymeal, where both can be afforded, make an excellent diet, varied occasionally with some kind of grain; wheat screenings are, perhaps, the best. Backwheat, cracked corn, and barley may also be given. For very expensive chickens, canary or crushed hempseed may be given in the first instance; but as this is expensive, it cannot long be given with profit. If it can be supplied at small expense, then their soft food should be mixed with milk instead of water, and for early chickens, new milk warmed given them to drink early in the morning has a wonderful effect on their growth and in bringing them through cold weather; but care should be taken that it is

not left too long so as to get sour; if so, it may cause serious trouble. A little meat chopped fine may be supplied, of which young chickens are very fond, and it greatly assists in maturing them. Chickens are very early risers, and have generally good appetites, and should, therefore, have an early breakfast. In summer they will be thoroughly awake at four o'clock, and should then have something to eat; we have found it a good plan to place a little food within easy reach of them after dark the previous night, so that when they pass out in the morning they can satisfy their hunger. Long fasting is very prejudicial to their growth and happiness. As a rule, food should be given so as to fully satisfy their appetites and no more; just as much thrown down as will be all clean picked up, leaving none to be trodden into the ground, or to remain over. Chickens for the first two weeks ought to be fed every two hours; after this, and until they are a month old, every three hours; and after that four times daily will be sufficient. In this country, where milk is cheap, curd, of which they are very fond, may be given to chickens. A little alum in the new milk will cause it to curdle immediately.

Nothing conduces so much to the health and growth of young chickens as a good grass plot, where it can be obtained. Early in the season, however, no matter how wide may be the range at other times, this will be impossible to procure; it is, therefore, very necessary to provide a substitute; this will be found in a head of early lettuce, which, if occasionally given, will be found of great benefit, and also a great preventive of diarrhoea. When the weather admits of it, chickens ought to be cooped out, the coop so placed that the back will face the wind, and be sheltered from any sudden storm that may arise; by this means the hen is confined while the chickens have full liberty. For other reasons also it is beneficial: it prevents in damp or cold weather the hen bringing the chickens too far away and getting wet and chilled, from the injurious effects of which they may never recover. Once a chicken is thoroughly chilled, it rarely if ever gets the better of it; and even if it does, it checks the growth and injures it in many ways.

The importance of dryness under foot in rearing chickens is very great. Some breeds will endure dampness better than others, but dampness under foot will be likely to bring on cramped feet. In the early part of the season boarded floors will be best, but they must be kept well sprinkled with dry ashes to prevent insects, and when the weather admits of it, cooped outside during the whole or part of the day.

When chickens arrive at between six and eight weeks of age the mother will in all probability show signs of leaving them if allowed her liberty and not kept cooped, or she may begin to lay at this time if she has been allowed to partake freely of the chickens' food. In either case she will begin to lose that foulness of them previously so noticeable, and some means should be at hand to provide for this contingency. If the weather is still cold, a dry warm place ought to be ready to put them in at night, which should be daily cleaned out, else it will soon become so foul that the chickens will not resort to it, or will catch some disease by continuing to remain in it at night. In such a place, kept nice and clean, it is surprising how long they will continue to resort to it, huddling up together and keeping each other warm. Sometimes, if the hen is permitted, she will go to the perch at night, and the chickens will follow her, and as many as can will get under her wings, where she will still continue to brood them; but this will not continue long, nor is it desirable in the case of some breeds that it should. Large breeds should not be allowed on the roosts until they are fully three months old, nor in the case of birds for exhibition would we allow them to roost at any age until after maturity. A crooked breast may be the result, even with the utmost care exercised, which to exhibition birds is a disqualification. Chickens, however, should not be allowed with the old fowls under any circumstances, but should be kept apart and fed freely.

In the case of birds for show they ought to have as much as they can use—a more than liberal supply. When they are growing fast, any check to their growth will be of permanent injury. Four good meals must be regularly given, one of which, at least, should be of soft food mixed nice and dry, and if the place admits of it, scattered about so as to allow them room to pick it up clean; but if not, it should then be placed in vessels kept clean, and free from sourness. Milk, if it can be had, may still be given them, even up to the age of six months if the range be good; but if kept in confinement, not more than about three months; in such cases, it is too much for the sluggish digestive organs. At the age of from ten to twelve weeks the cockerels ought to be separated from the pullets, and kept by themselves. They never grow so large when the sexes are kept together, besides which it saves trouble, and the cockerels are not so ready to fight among themselves as if with the pullets. In all the large breeds there will be little difficulty in picking out the cockerels, the comb and spur of which will be a pretty sure indication of their sex. In cases where a good run is impossible and the chickens are kept in small yards, these should be kept regularly swept out, and occasionally sprinkled with carbonate

of lime, which kills all the offensive smell, and prevents disease among the chickens arising from this cause.—(*Canada Farmer*.)

WOOD PIGEON AND DOVECOTE PIGEON PAIRED.

I beg to thank "T. G." for his courteous reply on the above subject, and for enlightening my south-country mind on the meaning of the word "acar." The fact, undoubtedly, of the pairing of the two birds in a wild state is certainly remarkable, and the like I never heard of; therefore it well deserved to be put in print. May I, though a stranger, be permitted to congratulate "T. G." upon his lifelong love for, and interest felt in, the Great Creator's works, which, as the Good Book says, "are sought out of all them that have pleasure therein?" and the seeking gives increase of pleasure. May "T. G.," who tells us he has reached seventy-six summers, long continue to enjoy all he sees around him in the world of beast and bird, of eye and ear too. He no doubt feels as I feel—

"That Nature never did betray
The heart that loved her; but 'tis her privilege
Through all the years of this our life, to lead
From joy to joy."

—WILTSHIRE RECTOR.

PIGEONS AT THE BATH AND WEST OF ENGLAND SHOW AT BRISTOL.

As a Pigeon-fancier I am sorry to say I have very little opportunity of seeing my birds in a position to compare them with others, and in consequence I am obliged to judge of their merits or demerits by reading the various reports published in the poultry papers. I must say of late I have been rather unsettled as to what is a good Pigeon, and as "WILTSHIRE RECTOR" leaves the "poor Trumpeters" to "blow their own trumpets," allow me to say a word for the first-prize pair. For the first time they have been described as a poor lot. What had "our Journal" to say about the same birds last year, when they were awarded first at the same show at Plymouth? They were also first at the last Exeter Show; the Judge then awarded them the first prize, and Mr. Fulton's foreign birds the second. I am also puzzled at the reports on the Owls. "WILTSHIRE RECTOR" describes them as "none too good," and a contemporary as "not a first-rate short-headed bird in the class." For the second prize pair I only wish to remark that they are the same as mentioned in "our Journal" a short time ago, when they won first at the Royal Cornwall Show the first time they were ever exhibited; but what I question is the report as concerning the first-prize pair belonging to Mr. Smith. The cock bird was shown at the Bristol Show held last January, and was then awarded the cup for the best bird in the several classes to which the cup was allotted, and that in competition with birds exhibited by the owner of the cup bird at the Crystal Palace (I do not know if the champion was at Bristol). Mr. Smith informs me he has won several prizes with the same pair. "WILTSHIRE RECTOR" no doubt recollects his remarks on the English Owls at the Bristol Show. *Vide* "our Journal."—F. B.

VAGRANT PIGEONS, &c.

PIGEONS certainly do not like a very light loft, or they would not always prefer, as they do, the nests in the corners of a room. For the possession of these they will fight; they like them because they are dark. Further, they dislike noise, and the quietest loft is most loved. Then they like a sunny roof; I put a hurdle or two on the south side of my coach-house, to which they always go and bask. High trees near blowing about, especially the shivering black poplars (*Abeles*), are objectionable. Rats, of course, will drive them away. Feed your squeakers upon soaked peas; if of a large variety on soaked beans, cramming them.—WILTSHIRE RECTOR.

DO OLD QUEENS BANISH THEMSELVES?

I SHOULD like the opinion of some of your practical contributors on the question, "How are aged queens disposed of?" as this must be a question of some concern to most bee-keepers. If they are allowed to die in the hive, then it is not likely they can continue to lay eggs to the last day of life, as would almost be necessary for securing a successor. Or do they banish themselves when approaching barrenness, or when death threatens the extinction of the royal race? The alternative of their being either banished or slain by their subjects I can scarcely believe. An incident that has just happened in my apiary may serve to throw some light on this question.

On June 22nd I hived a good top-swarm. I found the queen on the ground not able to fly far, and when I put her into the hive the whole swarm followed in a few minutes. I was almost perfectly certain this queen must be at least three years old, and her faded appearance and tattered wings confirmed my opinion. All went well, however, till the 25th, when about 8 p.m. I found so unusual stir about this hive. Although late in the evening, there was almost as much ado as if a swarm were going off. The bees flew hither and thither searching every bush, and ran out and in the hive in great excitement. This continued in a less degree until 1 p.m. on the following day, when I discovered the lost queen (the same old lady), under a heap of bees among the potato plants about 6 yards from the hive. When I replaced her on the flight-board there was great joy in the hive. I have no doubt that she had been out all night.

This strange adventure was repeated two days afterwards. The queen was missing in the evening, was sought for and lamented as before, until found by me with a few attendants next day about noon. This time, however, there was rather less concern manifested, and fewer bees followed the queen. When I placed her on the board the bees rushed at her as if she had been an enemy, but in a moment, having discovered their mistake, they cleared for her a pathway to the vacant throne, and the hive resounded with their merry song. She has remained in since, although I expect to find her repeat her strange conduct. I believe she must be still laying, for the bees are fast filling the hive with combs and carrying pollen daily. Have any of your readers witnessed anything like this? She could not have been banished, for her loss was certainly mourned, eager search made for her, her person shielded for many hours, and her return celebrated with enthusiasm.—A SCOTTISH SCHOOLMASTER.

ARTIFICIAL SWARMING.

"A SCOTTISH SCHOOLMASTER" gives the complete text of the abridged extract from Bonner, which appeared in our Journal a few weeks ago, with the Editors' hint that both Schirach and Wildman have a claim to priority in the matter of making artificial swarms; but Bonner's method was so superior to theirs, that precedence may well be accorded to him.

Schirach's method as described by Kays "is by a double hive, and the bees are compelled to ascend into the upper one by the smoke of rags, &c. A piece of brood comb is cut out, of 4 or 5 inches diameter, containing a maggot or maggots precisely of three days old, and properly placed in an empty hive, together with part of a comb of farina and another of honey; about a quart of bees is then to be introduced and the hive stopped up, except a small passage for air, and so remain three days. There will be a great tumult and noise in the hive for some hours, when it will subside and the bees will begin to build a royal cell. The fourth day an opening is to be made of a quarter of an inch, that the bees may come out leisurely. After roving about for some time they will return to their hive. It should be done in the spring." (page 252).

Thomas Wildman's method is—"If an old hive is so full of bees that they rest in the night under the board and yet show no disposition to swarm, turn the hive bottom up, give it some slight strokes on the sides so as to alarm the bees—they will immediately run to the extremity of their combs. If you look attentively to the middle of the hive you will there perceive the queen among the foremost. Seize her between the forefinger and thumb, and confine her in your hand till most part of the bees take wing; let her then go, the bees will soon join her and settle on some branch of a tree. Put them into an empty hive. Put the old stock in its place, that the bees which had been out in the fields may enter it on their return; and having remained there an hour or so, it is then put on another stand near or next its own. The hive, having what may now be called a swarm in it, is then placed on the stand of the old stock, and if the bees in both work regularly, carrying loads, all is well." (page 133).

Bonner was acquainted with Schirach's discovery, but at page 55 he says, "Long before I heard of Mr. Schirach's theory or experiments I had often taken off swarms without leaving any queens or royal cells in the mother hive; notwithstanding which they bred young queens, which surprised me greatly how they had obtained them, as the received opinion was this, that they could not breed a queen bee if the old queen was taken away before a royal cell was erected," &c.—R. S.

["A SCOTTISH SCHOOLMASTER" has sent us the same extract from Bonner's work.—EDS.]

STANNARD OF THE DRAGOON.—I have read "WILTSHIRE RECTOR's" remarks on the Bath and West of England Show, and as an old Dragoon fancier, I may say that his description of a Dragoon is the very best I have had the pleasure of reading, and that he knows what a Dragoon is or ought to be. I wish he would undertake the task of judging the Dragoon class at a few

of our shows, then the long-veined question would soon be settled.—W. WOODHOUSE, *King's Lynn*.

BEES SWARMING IN A BUILDING.

As during the bee-swarming season it is no uncommon occurrence to have a swarm make their way into some part of a building out of which it is almost impossible to get them again, the following account of a successful plan may be of use to others. Last May a swarm effected an entrance into a ceiling in my house through a crack over a window. Having seen the bee-trap invented by R. Aston, Esq., Upper Bar, Newport, Salop, favourably noticed in your periodical last year, I wrote to him to know whether it could be used in this case, and he sent me a trap with a perforated zinc cage fitted to it to hold the bees as they passed out through the trap. It was only necessary to screw the trap and cage firmly to the window-frame, stopping up every hole but one, before which the trap was fixed, and as the cage filled to sulphur the inmates.—S. J. HIDDLESTON.

OBSERVATIONS ON THE DEVELOPMENT OF BEES.

In the unicomb hive noticed in my article on the queen bee, page 395 of your Journal, I have been able to keep a colony of bees all winter. One of the combs is a little bent, causing one side to be near the glass, while the opposite one has more space. In this space the bees have attached to the glass a piece of comb containing about a hundred cells. Previous to this year the bees had always used these cells for storing honey and bee brood. On the day following that on which I despatched the article above referred to, I was surprised to see about a dozen eggs laid in the cells attached to the glass. Some of the cells are at right angles to the glass, the glass forming the bottom of the cell. Others are formed horizontally to the glass, in which case the glass forms one side of the cell. I was twice enabled to see the eggs in every position, and all the subsequent processes of bee-growth in the cell. Had I tried it I could not have placed them better for observation. Some of the eggs were deposited on the glass right in the centre of the cell, others were placed on the side of the cell, where I had a full view of the whole egg and bee as it grew to maturity. And as it may be interesting to some of your sparian readers who have not had the opportunity of observing this, I will describe as well as I can all that I saw.

To make the subject as clear as possible, I will give the dates and progress of growth of one egg out of many from the notes I made at the time of observation.

I took the precaution of putting a number on those cells which I had selected for more particular notice, and noted down the changes which took place at the time the observations were made.

Egg laid (in No. 4.) between 8 p.m., June 1st, and 6 a.m., June 2nd.

June 5th, 10 a.m. Grub just hatched.

" 8th, 4 p.m. Grub a good size, but still lying in a circular form.

" 10th. Grub eating at the bottom of the cell, with the abdomen extended towards the top. Bees sealing-up the cell.

" 17th. The form of the eye seen as a light brown spot.

" 18th. The joint between the body and abdomen developing, and legs forming, wings also forming. Still retaining the white colour of the grub.

" 21st. Changing colour; legs moving.

" 22nd. Hair and wings grown to full size. Bee moving in the cell during the day, and between 9 and 10 p.m. of the 22nd the perfect bee had emerged from the cell.

It is difficult to note the hour of every change which takes place in the development of the bee, the progress is so gradual when looking on, but on leaving it for a time the change is very marked in some of the stages; and though other observers may differ from me regarding the time required in each stage, I must observe that much depends on the temperature of the hive in which the process is going on. During the whole of May I was afraid I should not see one egg arrive at maturity, the weather was so cold; and I took the precaution to place woollen cushions against the glass to keep up the temperature when not observing, and at that time the eggs were sometimes six days in hatching. As the temperature increased the time has been shorter, but none less than the one noticed.

When the egg is first deposited it is pure white; in twelve hours it begins to become transparent at the point, and becomes more so till the grub emerges from the egg. Previous to, or just about the time the grub comes out of the egg, a bee deposits a small globule of white matter, like that which the queen bee gets, but thinner. The quantity each grub gets of this white jelly, as we may term it, is about the same as a bee can hold of honey in its honey stomach. This white jelly is deposited by the bee immediately beneath the egg, and as the grub emerges

from the egg it comes in contact with it and begins to consume it, one part of the grub being in the jelly and the other part still holding on by the shell of the egg, which it gradually leaves and burrows itself overhead in the jelly. The grub, as it passes out, bursts the sides of the egg longitudinally as well as at the end. The other food it gets is placed by the bees at the bottom and round the sides of the cell walls, and seems to consist of pollen moistened with water or honey, as I have seen the bees mixing it up with their mandibles against the glass, and then placing it on the cell walls.

Each cell is provided with this food before the egg is laid, but should the queen chance to lay an egg in a cell immediately after a young bee has eaten itself out, the bees can and do put the food into the cell after the egg has been deposited.

When the young bee leaves the cell another bee generally comes and trims the mouth of the cell, then enters it, feels if all is right, wipes it up with its sucker, which is just a pointed mop, and then proceeds to put in the food for the future bee. The grub goes on increasing in size among the white jelly for about three days, then it begins to the food laid on the cell walls, keeping in the circular form. As it clears away the food, it requires to turn its head or mouth more into the bottom of the cell, where the food is deposited in greater quantity than on the cell walls. At this stage it eats voraciously, somewhat like a caterpillar on a rose or cabbage leaf, cleaning the glass completely where the food has been laid on it. As the head descends into the bottom of the cell the abdomen extends upwards. At this stage the bees seal up the cell. Here, then, is a period of the grub's growth, when it increases rapidly in size, with its head the wrong way, and it is seemingly impossible that it can ever turn itself. If I had not seen it as well as others I could not have believed that it would turn; but it continued eating, notwithstanding, till it seemed to be unable to eat any more. It took about an hour to turn itself, and when it did so it began to eat at the top of the cell off the glass. At last it could eat no more, but kept moving its head as if it were doing so, then it ceased altogether, and became motionless, lying on its side, as they all do, or on the back, none on the belly. And so ends the second stage of a bee's growth.

No one could ever imagine that from the plain-looking worm quietly reposing in a cell there would come forth a perfect bee, having so many marvellous adaptations for the work assigned to it in creation, and complete in all its parts for the wonders it performs. The first perceptible change that takes place in the grub is a light brown spot the shape of the eye, then small protuberances on the body, from which the legs grow, and the divisions of the body from the abdomen gradually develop themselves. The legs increase in length, and at last are perfectly formed, but the whole still retain the white colour of the grub, with the exception of the eye, which gets darker. The head and mouth then begin to appear, and the joints of the legs begin to have streaks of brown colour, which extend all over the body. The thick part of the abdomen is the last to change colour. The proboscis or sucker can be seen growing down the belly.

On the last day the hair has grown, and the legs begin to move twelve hours before it comes from the cell, always increasing in motion; then the whole body moves, turning itself round every few seconds; very restless up to this time—about three hours before it comes from the cell. The proboscis continues as a solid trunk, so that it cannot turn it in as it does at other times; at last it, too, becomes split up as in the normal state.

Then the now-developed bee begins to eat itself out, which it does in two hours. When it does make its way out it seems very happy, but none of its sisters take any notice of it then. It is, as a matter of course, occurring in hundreds of cases every day during the breeding season.

Though these remarks are confined to one bee, they are the result of the close observation of a number of eggs.

Though a number have been hatched, yet many more have failed, both as eggs, and more in the grub state; none after they have passed into the bee stage.

In a number of cells two eggs were deposited at a time, in other cases a second egg was deposited on the following day, and in two cases an egg was deposited after the first grub was hatched; but in no case did a bee ever move an egg but by eating it; both eggs were allowed to remain till they were hatched, then the grub of one would be consumed by a bee, and sometimes they would be left till both were devoured. When one observes the firmness with which the eggs are glued to the glass or cell, it is difficult to conceive how the bees could remove such eggs and stick them on to another cell, as they doubtless must be, as they are not dropped, but pressed against the cell.

In the earlier part of the season, when the weather was cold, I have seen a bee approach an egg, feel it with its antennae, presenting its mouth filled with the white jelly to it, and remain in that position for half an hour, allowing the grub, not yet out of the egg, to eat the jelly out of its mouth. I saw this distinctly on several occasions, but it does not seem that bees do it at all seasons, as I have not seen it lately.

A bee will frequently take up its position in a cell beside an egg and remain motionless for hours. Whether it is to rest or sleep, or to give heat to the egg, I cannot say; I only state the fact.

I had an opportunity the other day of testing the white jelly from a queen cell, imagining it to be albumen or starch, as in appearance it is like these substances; but it did not coagulate by boiling, but partly became soluble. Instead of giving a blue colour by the addition of a solution of iodine it indicated a brownish colour, so that it is neither albumen nor starch.

I was always under the impression that the bees deposited the honey in the cells by means of the sucker, but I find I am wrong. It is from the mouth proper that it is expelled. When in the act of expelling it the mouth seems large in proportion, in the form of an oblong square with the corners rounded. As the bag or stomach gets emptied air-bubbles are expelled at last, as if one pressed liquid from a bladder. The same occurrence takes place when they are putting the white jelly in the cell. It was seeing them putting in the jelly which first drew my attention to the fact.

In these observations I am fortunate in having a good microscope at my service.—A. SHEARER, *Yesterday*.

OUR LETTER BOX.

DONCASTER SNOW.—Mr. A. A. Vander Meersch took the second prize for Jacobins, and not Mr. Bamford.

DORKING COCK AND BONEHEAL (H. F. H.).—I am sorry to say I cannot remember anything about "H. F. H.'s" bird. It is almost impossible for any one to recollect a single bird at a show unless it had some very special mark, or was in the Any variety class, where, perhaps, only one bird of a sort appears. Most likely "H. F. H.'s" bird was not large enough; all the prize Dorkings are the largest of the class, other properties, of course, being good. Boneheal is of no use except for chickens of large breed, and not to them if they have a range where they can get all the feed. The proportion used is an ounce with every half-pint of dry meal before adding the milk or water.—WILTSHIRE RECTOR.

MR. TODMAN'S PARTRIDGE COCHINS (E.).—We have received more than one communication on this subject, all stating that the criticism was written by one either ignorant or negligent. We have inserted Mr. Todman's statement and Mr. Hewitt's refutation of the criticism. No one who knows anything of poultry will consider the critic's opinion is of the slightest value compared with Mr. Hewitt's opinion.

GROUND OATS (J. E.).—They are advertised in our columns every week. Prepared as you say, they would make good cakes for greyhounds when out of training. Make the meal into a stiff dough, dry the cakes thoroughly, and then if kept in a dry place they will remain serviceable for months.

PHEASANT FOWLS (Jane).—The Golden-spangled Hambarghs were formerly called the Pheasant Fowls. The name did not arise from any similarity of shape, but because there was a likeness in the dark spots or moous at the end of each feather common to each breed. There have been enthusiasts who have believed such community of feather has been the result of contact between the two breeds; but it is not the fact. The hybrid between any two birds is quite distinct from either of them, and is also sterile.

PRESERVING EGGS (Flycatcher).—We hold it to be something to get eggs for puddings all through the winter. We always save ours in lime. We have them sometimes fit for breakfast, but we are yet seeking a method of preserving eggs that will keep them new-laid!

LICE ON FOWLS (H. B.).—The presence of vermin is always accepted as a proof of low condition. It is especially the result of rice-feeding and of accumulated dirt in their houses and haunts. The probability is the corners of their house want cleaning out with a stiff brush steeped in strong preparation of lime. The best way to get rid of them is to put in their baunts, and even, if their house is a large one, in their house, a heap of dust or wood-ashes with which may be mixed some black sulphur, a pound to a bushel. The birds will bask in this, and it will be found a cure. Where an immediate cure is wanted, the patient may be caught and a drop or two of oil may be put at the back of the poll, on the middle of the backbone, and under the wings.

STOVE FOR FOWL HOUSE (E. B.).—No stove is needed.

FOWLS CROOKED-BREADED (Tyrol).—The cause is in most instances that the birds are too highly fed, and are forced along so fast that the bones cannot support the weight of the body. In roosting, the grasp of the feet is not sufficiently powerful to steady and support the body on the perch, and the breast therefore rests upon it. Being in a cartilaginous state, it adapts itself to the shape of it, and becomes crooked. Large fowls like Brahmas should not roost at the age you name. If you let them roost on the ground you will keep straight breasts.

DRAWING HONEY (An Apianian Subscriber).—As you are now in possession of a hundredweight of honeycomb in bare, and likely to have a great deal of run honey, we think your better way will be to go yourself with your bars to some man for honey, and there sell what you have, and make arrangements with some dealer for the reception of your future supplies. It is hardly fair to expect us to mention the names of buyers, but we may say that you will have no difficulty in finding plenty of them at the prices named. You will please bear in mind that the wholesale house in Ireland which you have been treating with have probably to sell the honey to wholesale houses in England, and these to retailers at wholesale prices. As to packing your bars to travel safe by road or rail, we think you will do well to put them in their natural position in a bar-frame hive, or some such contrivance, to avoid the friction or pressure of comb against comb. The modes of taking honey from combs will be noticed in our first number for August.

SWARM FORSAKING ITS HIVE (W. E. M.).—We do not think your driven bees swarmed out of the hive in which you placed them because of the loss of their queen, otherwise you would never have caught them again as a swarm, which we infer was the case, as you say you "wanted them to another." Had their queen been lost they would have simply joined some other hive, not unlikely their old companions. We believe there is no remedy for the loss of a

queen on her honeymoon trip except substituting another queen for her, or furnishing the hive with brood comb out of which to rear a queen. We do not like Mr. Payne's plan; it is too uncertain of success. There is nothing like driving both swarms or stocks into a common third hive, as discovered by "B. & W."

PIGEONS (T. O. J.).—Mr. Fulton's address is Duke Street, Deptford.

CANE FOR HIVES (A. B.).—We do not know a house where cane can be had in London. Most basketmakers have it, and almost every toy shop sells it. Neighbour & Sons, who are large dealers in hives, may tell you where it can be obtained at wholesale prices. The price of honey and honeycomb ranges between 1s. and 1s. 6d. per lb.

BEE-DRESS (B., Breconshire).—Probably any of the dealers in hives who advertise in our columns could supply you with one. If you have one home-made, a very simple and convenient one is formed of green lino, and a mate as to enclose the head, neck, and shoulders; indeed, it is like a bag, with sleeves to tie at the wrists. The sleeves are made of green glazed cambric. With its aid the most difficult operation may be performed without the possibility of being stung.

MELTED COMBS—SHADING (J. R. B., Chichester).—Shading should always be had recourse to in such weather as that of the middle of July, and more especially so for swarms of the year. In those cases where it has unfortunately taken place, it will be better to shade immediately and nothing more, leaving the rest that is to be done entirely to the bees. Should the weather prove very hot and sultry, it will be necessary to shade newly-bred swarms for a few hours in a day, say from ten till two o'clock; a green bough answers very well for this purpose—that from the fir trees, perhaps, is the best, as well as the most durable.

METEOROLOGICAL OBSERVATIONS,

CAMDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W.; Altitude 111 feet.

DATE.	9 A.M.					IN THE DAY.					Rain.
1874.	Baromet. at Sea Level.	Hygrome- ter.		Direction of Wind.	Temp of Soil at 1 foot.	Shade Tem- perature.		Radiation Temperature			
July.		Dry.	Wet.			Max.	Min.	In sun.	On grass		
We. 1	30.020	deg.	deg.	S.	deg.	deg.	deg.	deg.	deg.	In.	
Th. 2	29.873	62.4	67.5	S. E.	60.8	69.9	59.6	100.1	57.5	0.048	
Fri. 3	30.006	76.0	65.7	S.	63.2	84.4	53.4	130.3	49.4	—	
Sat. 4	30.71	64.2	57.0	S. W.	61.8	71.2	55.1	124.6	51.0	0.072	
Sun. 5	30.216	64.8	54.0	S. W.	61.2	79.5	50.0	128.8	47.2	—	
Mo. 6	29.34	65.0	65.6	N. W.	61.6	73.4	47.4	130.0	42.6	—	
Tu. 7	30.167	61.7	57.6	E.	61.0	75.5	49.6	118.8	45.4	—	
Means	30.091	65.0	58.6		61.2	74.5	53.3	123.6	49.7	0.120	

REMARKS.

- 1st.—Rainy morning, but a beautiful day afterwards.
 - 2nd.—Very warm, pleasant summer day.
 - 3rd.—Fine day, rather cooler, the wind being high.
 - 4th.—Fine morning, rain from noon till 4 p.m., after that time fine, except a short sharp shower between 6 and 7 p.m.
 - 5th.—Very fine during the whole day.
 - 6th.—Fine morning, but looking very stormlike at noon, and again between six and eight in the evening, but no rain fell; bright fine night.
 - 7th.—A very fine day throughout, but with a falling barometer.
- A week of pleasant weather, the wind at times rather high, and the sky looking stormlike, but gradually clearing without either thunder or rain. Temperature higher than during the previous fortnight, and that in sun very high.—G. J. SYMONS.

COVENT GARDEN MARKET.—JULY 8.

MARKETS remain firm at last week's quotations, with the exception of English Pines, which are now much cheaper in consequence of the large importation of foreign ones.

FRUIT.

	e. d.	s. d.		e. d.	s. d.
Apples.....	4	0 to 0	Mulberries.....	1	0 to 0
Apricots.....	doz. 2	0 4	Nectarines.....	doz. 8	0 10
Cherries.....	1	0 2	Oranges.....	100	4 10
Chestnuts.....	1	0 0	Peaches.....	doz. 10	0 21
Currants.....	4	0 0	Pears, kitchen.....	doz. 0	0 0
Black.....	do. 0	0 0	dessert.....	doz. 0	0 0
Figs.....	do. 6	12 0	Pine Apples.....	lb. 2	6 0
Filberts.....	10	1 0	Plums.....	1	0 0
Gooseberries.....	1	0 1	Quinces.....	doz. 0	0 0
Grapes, hothouse.....	1	0 6	Raspberries.....	lb. 0	6 0
Lemons.....	100	8 12	Strawberries.....	1	0 3
Melons.....	each 4	0 8	Walnuts.....	bushel 10	0 10

VEGETABLES.

	e. d.	s. d.		e. d.	s. d.
Artichokes.....	doz. 8	0 to 0	Lettuce.....	doz. 1	0 to 2
Asparagus.....	100	0 6	Mushrooms.....	potte 2	0 8
French.....	0	0 0	Mustard & Cress.....	punnet 0	2 0
Beans, Kidney.....	10	2 0	Onions.....	bushel 4	0 7
Broccoli.....	1	0 0	pickling.....	quart 0	6 0
Cabbages.....	1	0 1	Parsley per doz. bunches	2	0 4
Capcous.....	100	0 0	Parsnips.....	doz. 0	9 1
Carrots.....	bunch 0	1 0	Pears.....	quart 1	0 2
Cauliflower.....	doz. 2	0 4	Potatoes.....	bushel 8	6 0
Celery.....	bundle 1	8 2	Kidney.....	do. 4	0 8
Coleworts.....	doz. bunches 2	8 4	New.....	1	0 3
Cucumbers.....	each 0	6 1	Radishes.....	doz. bunches 1	0 1
pickling.....	doz. 0	0 0	Rhubarb.....	bundle 0	9 1
Endive.....	doz. 2	0 0	Salsify.....	bundle 1	6 0
Fennel.....	bunch 0	8 0	Scorzonera.....	bundle 1	0 0
Garb.....	lb. 0	6 0	Sonch.....	basket 0	0 0
Herbs.....	bunch 0	3 0	Shallots.....	lb. 0	3 0
Horseradish.....	bundle 8	0 4	Spinach.....	bushel 2	0 3
Leeks.....	bunch 0	8 0	Tomatoes.....	doz. 2	0 4
			Turnips.....	bunch 0	8 4
			Vegetable Marrows.....	doz. 2	0 3

WEEKLY CALENDAR.

Day of Month	Day of Week	JULY 16—22, 1874.	Average Temperature near London.			Rain in 43 years.		Sun Rises		Sun Sets.		Moon Rises.		Moon Sets.		Moon's Age.		Clock before Sun.		Day of Year.
			Day.	Night.	Mean.	Days.	m.	h.	m.	h.	m.	h.	m.	h.	Days.	m.	s.			
16	TH	Brighton Horticultural Show.	76.9	59.1	63.0	17	3	44	8	48	49	6	1	10	3	5	44	137		
17	F		74.3	51.3	62.8	16	4	4	7	8	4	8	14	10	4	5	49	138		
18	S	Cleckheaton Horticultural Show.	74.7	50.2	62.5	21	6	4	6	8	15	9	25	10	5	5	54	139		
19	SUN	7 SUNDAY AFTER TRINITY.	73.2	49.9	61.1	22	7	4	5	8	26	10	35	10	6	5	59	140		
20	M	Bramley Horticultural Show.	73.2	50.2	61.7	23	8	4	4	8	35	11	45	10	7	6	2	141		
21	Tu		74.0	50.8	62.4	19	10	4	2	8	after.	57	10		p	6	6	142		
22	W		72.2	51.4	61.8	24	11	4	1	8	57	1	11	11	9	6	8	143		

From observations taken near London during forty-three years, the average day temperature of the week is 73.9°; and its night temperature 50.5°. The greatest heat was 94°, on the 17th, 1831; and the lowest cold 34°, on the 16th, 1863. The greatest fall of rain was 1.37 inch.

MELON-GROWING AND JUDGING.



HAD made some notes with a view of writing a short article on Melon-growing before I saw the paper on judging Melons by Mr. G. Abbey, in the number published July 2nd. With your permission I will briefly criticise a few of Mr. Abbey's remarks, and, as he says he should be glad to have the views of others, he will kindly excuse me for saying that in many points my views are quite in an opposite direction to his own. If I am not qualified to speak it is not through want of practice, for growing Melons is about the most important thing I have to do, that luscious fruit being in almost daily request here during summer and autumn. I have at present five houses planted in succession, two of which are planted for the second time this season.

I partially agree with Mr. Abbey when he says that flavour should not be the sole test in judging a Melon. A noble Melon is a great addition to the dessert, especially where Pines are not grown; but I cannot conceive anything more disappointing to the connoisseur, who has been watching and longing for a slice all dinner-time, than to find when the fruit is cut that it is not so good as it looked. Many people there are who do not know what a good Melon is, and can enjoy an inferior one with the same relish as children eat Crabs and sour Gooseberries. I often envy them; for do what I will, when I have once tasted the flavour of a good fruit or a good vegetable, it always haunts my imagination, and I cannot be quite satisfied with anything that has even a shade of inferiority about it. If there are twelve points in judging a Melon, I would certainly give eight to flavour.

Mr. Abbey says, "The smallest examples, not the consequence of overcropping, have the highest flavour;" and again, "high colour is no criterion of flavour." This is totally opposed to my experience, not only of Melons, but of all kinds of fruit. I have generally found that the most perfectly-developed and highest-coloured fruit of any given kind was also the best flavoured. On the other hand, I do not think that netting, ribs, or hard skin, will afford any guide as to flavour. The Melon is about the only fruit we cultivate of which we cannot tell the quality by the exterior, and to be judged correctly it must be cut and tasted, even were everyone to exhibit the same variety; for in Mr. Abbey's own words, "in many cases it is only a question of culture."

Culture is everything: I will now give my mode, which I daresay does not differ materially from that of other successful growers. I happen, however, to have good houses, good soil, and I grow a good sort. The sort is that known as Meredith's Cashmere, four fruits of which, since reading Mr. Abbey's paper, I have had the curiosity to measure and weigh. Their average girth, measuring both ways, and taking the mean, is 1 foot 11 $\frac{1}{2}$ inches, and their average weight, 6 lbs. 12 $\frac{1}{2}$ ozs. Mr. Abbey's rule for ascertaining weight by measurement comes pretty

near in this case; but weight depends a great deal on the sort, and its culture. We never have a fruit of this kind that is not eatable, unless it is during the dull days of late autumn. It will be said, probably, the Cashmere Melon cannot be grown to 6 $\frac{1}{2}$ lbs. without being unduly fed. I can only say that the plants have never had the smallest particle of manure, either liquid or solid; the soil they are growing in averages exactly 2 cubic feet for each plant, and is placed on a hard bottom of stones and ashes. The plants have borne six or seven fruit each.

I make my first sowing early in February, placing the seeds singly in small pots filled with heavy loam; these are placed in strong heat in a light situation, and as soon as the little plants begin to make their first rough leaf they are shifted into larger pots, and afterwards planted, 6 or 7 feet apart, on little hills formed of very heavy loam pressed together as closely as possible. As they grow the main stem is trained straight up the trellis, and without any pinching or stopping it throws out laterals 10 inches or a foot apart, which are trained at right angles to the main stem. These laterals, when they have nearly filled the space allotted to them, are stopped, and they in turn produce sublaterals, which invariably bear female blossoms. In the early part of the season it is necessary to fertilise the blossoms; afterwards, when the outside air is more genial and abundance of air can be safely admitted, they will fertilise themselves.

The knife is never required for Melon plants if they are grown properly. The shoots should never be allowed to grow where they are not required; it is a waste of energy to allow them to form and then cut them off.

I sow about once a fortnight from March to June, so that I always have plants ready whenever a house is at liberty. Some plants are grown to a large size in 12 or 13-inch pots, to follow other crops in the same house. They are easily transplanted at any time by placing them in position and breaking the pots.

Melons are not very particular as regards temperature; mine have a range of from about 50° to 130°. When they are setting their flowers, however, the flowers and young fruits are apt to get scorched if the temperature rises too high. I therefore, as my houses are rather short of means for ventilation, find it necessary to shade them for a few days at the time of impregnation.

The Cashmere Melon has two drawbacks—it is rather difficult to set, and it is liable to crack open. The latter failure I counteract by strangling its neck or cutting three-parts through the stem when nearly full-grown. The setting is easily managed on the sublaterals, but, as far as my experience goes, not otherwise. I often try a fresh variety in competition with the Cashmere, but at the end of the season always receive the same command—return to the old favourite.—WM. TAYLOR.

TABLE DECORATIONS.

ALLOW me to make a protest against encouraging the habit of making table decorations too flimsy and too transitory in their nature. Having been to a good many shows lately,

I have seen prizes awarded to table decorations that would not have lasted even during the time of an ordinary dinner party. At Tanbridge Wells and at the Crystal Palace the first prizes were given to vases of the Murch type, where single flowers of the *Delphinium formosum* and *ceruleum* were wired on to pieces of grass, and the chief effect produced by means of flowers that would die before dinner was half over.

There is such a thug as making vases too heavy by overcrowding them with flowers, however choice the flowers may be; but surely there is no need to run into the opposite extreme and encourage poverty of idea and paucity of flowers. There is a limit to the use of Grass and Ferns; nor can I see any beauty in white sand stuck all over with Grass, and a few flowers thrown promiscuously at the base of the stand.

The excuse given for wiring the flowers on grass for table decorations is, that the same practice is adopted for hand-bouquets at Covent Garden; but surely Covent Garden is not to rule the taste of judges at horticultural shows, and what may be allowable for a hand-bouquet of a mere transitory nature to be used for one night, is not to be a guide for a table decoration which ought to be of a more permanent character. A stand of flowers for the centre of a drawing-room or dining-room table ought to be fit to be seen the next morning. If dinner tables are decorated at a nobleman's or gentleman's house when a large party is staying in the house, the breakfast table or the luncheon table should be able to profit by the decorations of the previous evening.

The habit of introducing plants in pots by means of holes cut in the table is, I am in hopes, dying out, even where it was for a short time adopted; and I also trust that poverty and paucity will not be encouraged under the pretext of lightness and elegance. The best table decorations ought always to consist of choice flowers, not overcrowded, nor, on the other hand, too formally arranged, but every flower used should be good of its kind, and foliage should be accessory and secondary, and not the principal object.—C. P. P.

NOVELTIES IN THE ROYAL GARDENS, KEW.

On the Rockwork in flower are two very interesting new plants from Morocco, brought home by the Expedition of Dr. Hooker, Messrs. Maw and Ball, in 1871—*Bellis rotundifolia*, var. *carulea* (the Blue Daisy), and *Salvia taraxacifolia*. "The Blue Daisy is one of the commonest spring flowers in various parts of Morocco, abounding in fields with a rich soil on the hills near Tangier, and occurring in great profusion by the watercourses of the valleys of the Greater Atlas in latitude 31°, at elevations of 4000 to 11,000 feet" (Dr. Hooker's "Bot. Mag." 1873). It is easily cultivated, and may be grown in pots, but is better planted on rockwork, where it grows freely. Increase may be effected by division. It is as yet exceedingly rare, and is much inquired after. The leaves of *Salvia taraxacifolia* are pleasingly scented; the flowers are pale pink, and are produced in spikes. It does not seem to stand our winters well; a few plants should therefore be grown in pots and wintered in a frame. A stock is best obtained from seeds, which are freely produced and grow readily.

Begonia S-denii is heavily covered with scarlet flowers. *B. carminata* is also very handsome, with flowers of a yellowish hue. *B. intermedia* and *B. Aquarion* are also beautiful; the flowers of the former are very fiery.

There are a few half-hardy plants that may with propriety be planted on the rockwork in summer, among which may be named the tuberous *Begonias*. They are an additional point of interest and beauty without being in the way, and serve to attract those who can see no beauty that does not consist chiefly of flaring colour. Cuttings strike freely; it is the only way of getting the best kinds true. They are easily grown and flowered from seed, when a variety may be obtained. Heat is never required; fine specimens may be grown in a greenhouse, preferably with a north aspect. When the plant is mature for rest the supply of water must decrease, and the tubers be placed in a moderately dry and cool position. They grow well in rich fibrous loam. The New Zealand *Lobelia (Pretii) littoralis* is very charming. It has a neat creeping habit, and bears a profusion of pure white flowers. It may not be quite hardy, but only requires the protection of a frame in winter; a few plants in pots would hold it safe. In summer it likes a moist and rather shady position. It appears to be rare, but by means of the rooted stems may be increased to a great extent. *Trierythra macropoda* is rare and curious; it has yellow flowers with numerous small dark purple spots; the

leaves have usually a few large ones almost black. *Lilium Washingtonianum*, mentioned last week, is represented in this country by the variety *purpureum*. The type, it is supposed, has not been introduced to cultivation.

In the Herbaceous ground *Erigeron mucronatum*, nearly a yard across, is producing a mass of flowers on slender much-branched stems. The flowers are Daisy-like, are white at first and then turn red. This plant till last year was everywhere known as *Vittadenia triloba*, with which it has nothing whatever to do. It is a native of Mexico and Venezuela, and therefore must not be called the New Holland Daisy. Here it is quite hardy and of perennial habit. It grows freely from seed, and being so pretty and distinct is worth cultivation everywhere. *Coreopsis auriculata* is very fine, much in the way of *C. lanceolata*. *Scolymus maculatus* is a striking perennial of Thistle-like aspect, with many large yellow flowers. It is not at all common, and is best grown from seed. *Campanula celtidifolia* is a very fine species, about 3 feet in height, with panicles of large flowers (it is also in bloom at the Rockwork). *Salvia Horminum*, var. *rubra*, presents a pretty change of colour from the commoner violet form. *Calandrinia umbellata* during sunshine is so brilliant as scarcely to be equalled by anything else. Though a perennial on well-drained soil, it may also be treated as an annual; sown early, the crimson flowers are produced the same year. *Genista æthensis* is a very handsome and graceful shrub. The branches are composed of slender, green, leafless twigs, bearing a profusion of yellow flowers. *Dianthus monspessulatus* is very pretty with pink flowers, the petals of which are deeply fringed. *D. ramosissimus* is very distinct in habit; it produces a dense tuft of slender stems, bearing numerous small pink flowers.

In the Cape house *Eucomis punctata* is very ornamental. It has tall racemes of greenish white flowers, the ovaries of which are dark violet. Several plants are in flower of the new *Pelargonium oblongatum*. It has dwarf fleshy stems without any inclination to branch. A few *Mesembryanthemums* are very showy. *M. coccineum*, *M. inclandense*, *M. blandum*, *M. falciforme*, *M. bulbosum*, and *M. lacerum*, of which a single flower is quite an ornament; it is large, and of a fine rose colour.

THE LAWN-MOWER COMPETITION AT BIRMINGHAM.

MEDALS were offered in this section of considerable value, and it was to be regretted that there was not a larger number of mowers to take part in the contest, although, as matters were arranged, the work that fell to the share of the Judges was of a very laborious character. For instance, instead of testing the draught of each machine by a dynamometer, which could readily have been obtained for this purpose, and which would have given the result with accuracy, each machine had to be tested by the muscular exertion of those who had to adjudicate on its relative merits. Surely the work that falls to the share of the censors at an exhibition like that at Aston is trying enough both to the mind and the body without oppressing them with work that might be performed by a donkey or other beast of burden. Conductors of exhibitions would do well to take a note of this when organising another contest of this character; do let the work of the judges be as pleasant as possible. Another feature in the machines which could not be tested in a competition like this is their liability to get out of order; but this could only be ascertained by a whole season's practice. Of course simplicity of construction may, to some extent, be considered a guarantee that the machine would continue to work for a period in proportion to the least number of parts, cogwheels, &c., of which it is possible to construct it.

The new "Royal" machines exhibited simplicity of construction in a very marked degree; these were sent by Messrs. Green and Son, and are totally different in construction from the machines made by them and worked by chain-action. The broad wheels at the sides are certainly objectionable when it is intended to cut amongst flower beds, around large pedestals, &c. Still, none of the machines cut quite up to pedestals, and in practice it would not matter much whether the space to be cut with shears was 6 or 3 inches broad.

The contest ought to have commenced at 11 a.m. on Wednesday (July 8th), but owing to some delay it was mid-day before the first machine was set to work. The following were the sizes of the machines entered, and the conditions are also specified below.

12 or 14-inch machine,	to be worked by one person.
20-inch, "	" " two persons.
30-inch, "	" " a pony.

CONDITIONS.—1. Strength and simplicity of construction.
2. Capability to cut a smooth lawn.

3. " " rough grass.
4. " " wet grass.
5. To cut close to an object, such as a pedestal.

The competitors were Messrs. Crowley & Co., of Sheffield; Green & Son, of London and Leeds; Hartley & Sugden, Halifax; Barnard, Bishop, & Barnard, of Norwich; and Mr. Harris, of Birmingham. Messrs. Green's new "Royal," cutting 30-inch, worked by two men, made the first work. Cutting one breadth twice and another once it did its work well, and did not rib the grass so much as some of the other machines. When worked with a pony it did not do the work nearly so well as by hand. Barnard, Bishop, & Barnard were the only other firm that tried pony machines, and theirs cut well on level ground, and threw the grass out well. It cut very close to the pedestal (a round and square one were on the ground); it was very noisy, but this was owing to their using a galvanised collecting-box, which was stated to be more durable than those made of wood and iron. It also worked well round a small circular bed, but the work was ribbed on uneven ground.

Twenty-inch machines.—Hartley & Sugden, cut the first widths with the Windsor, followed by a "Silens Messor," sent by Mr. Harris. The first named cut pretty well on the dry grass, but ribbed badly and was difficult to work when set to work where it was wet. The "Silens Messor" cut better than the "Windsor" on wet grass, and was more easily worked.

Edwards's patent machine, "The Invincible," sent by Crowley and Co., certainly made the best work on the dry ground, and its superiority was more evident on the wet grass; and when the grass is long and peculiarly stubborn to cut, the roller is by a contrivance made to be shifted from the front to behind the knives, and when it was tested on the longest of the wet grass in this way, the work was also well performed. Barnard & Co.'s 20-inch machine was hard to work, but it cut without leaving the grass badly ribbed. It did not, however, take the bents so clean as some of the others. Their 30-inch pony machine on the wet threw the grass out well, and did not rib so much as Green's. The 14-inch machines made beautiful work in nearly every case.

Crowley & Co.'s and Mr. Harris's machines worked the easiest, though all of them threw the wet grass well forward, and the grass was well wetted. It was thoroughly soaked before the machines—so much so, that one came to the end having the box half full of water. After the trial one machine from each exhibitor was taken to pieces by the exhibitor himself, and minutely examined by the Judges, all the points being minutely considered. The first prize, a gold medal, was then given to Messrs. Crowley & Co. for "The Invincible;" second, a silver medal, to Mr. Harris for the "Silens Messor;" third, a bronze medal, to Messrs. Hartley & Sugden for "The Windsor."

Two machines were also submitted to the Judges for cutting grass edgings, one from Mr. Harris, which is attached to a lawn mower; and the other from Messrs. Green, which is either attached to a lawn mower or small roller. The principle in both is the same—a set of revolving knives cutting against a steel plate. Green's machine worked much better than the other, and it will, no doubt, be very useful where miles of edging have to be cut; but as shown, it will not supersede the old-fashioned shears for beds in geometrical gardens. It may be improved, as it is yet in its infancy. Even as it is, it is a step in the right direction. The silver medal was awarded to it. Messrs. Green also exhibited a machine for cutting the turf round edgings, which also requires some improvement to make it serviceable.

The Judges in this department were Messrs. Bennett, of Hatfield; Fleming, of Cliveden; Lowe, of Wolverhampton; and Hassall, of Birmingham.

LOVE AMONGST THE ROSES.

AND why not? True I am not exactly the model for *un petit cupidon*; my beard is grey and my head bald, but these slight drawbacks have often not prevented many a possessor of them from making a fool of himself—the worst, according to the proverb, fool of all. Yet for all this I may lay claim to being a lover; and it is one charming feature in the fair queen whose devoted servant I am, but whose eyes I never wish to gaze upon, that she does not disdain the homage of a very old lover. In fact our affection is platonic. I never look for a nearer embrace than to get a whiff of the gentle fragrance which she diffuses around her, and if I sound her praises or tell of her triumphs, it is because I delight in all that brings honour to her name; and when I see "young men and maidens, old men and children" hovering round her, I feel that she has rightly assumed the throne from whence no rebellious spirit in the domain of Flora will attempt to dethrone her. And as I have been lately doing homage at her court in various places, I would now summarise a little the result of my attendance, and firstly

THE WISBEACH SHOW.

This was held in the grounds of J. T. Baker, Esq., at Colville House, and, indeed, the whole Exhibition was due to his energy and good will. There had been some difference of opinion about an Exhibition, and he took upon himself to bear all the risks. It was unfortunate in one respect, that it was fixed on the same day as the National Rose Show at the Royal Horticultural Society; and to those who imagine that exhibitors are influenced by mere greed, it will be, I think, worthy of notice that not even the tempting prizes offered here could induce them to forego the hope of winning the prizes at South Kensington. It must have been a disappointment to Mr. Baker to miss the well-known names of Paul, Cranston, Turner, and Keynes, the result being that it was an easy walk-over for Mr. Cant, who was so far in advance of the only other stand exhibited in this class, that the Judges withheld the second prize altogether, for they felt that a prize of £10 ought to have brought together better Roses. Amateurs were fairly represented, but neither amongst their stands were there any remarkably fine flowers. I think that the Wisbeach people in setting the example of offering these large prizes for Roses deserve well of their country, and the neighbourhood cannot but reap the advantage of having such competition amongst them. I pass by the stove and greenhouse plants, Ferns, &c., because my notes are to be upon the Rose, but I wish at the same time to do honour to the excellent plants contributed by Messrs. Dixon, of Beverley; House, of Peterborough; and Cypher, of Cheltenham.

Have any of our readers any experience of Sutton Bridge Station? If not, amongst their delightful outings for the autumn, let me advise them to essay the journey from Wisbech to Spalding by that route. You have such delightful leisure that you may see the country to the greatest advantage, knock up a lifelong acquaintance with the amphibious animals whom we should designate as porters, but who, in this region of canals and dykes, have "pilot" in red letters on their caps; and engage in statistical inquiries as to whether a wet country like this tends to a greater or less consumption of beer and baccy. Be this as it may, we were glad, as we were obliged to leave Mr. Baker's hospitable mansion earlier than we wished, to make the eighteen miles from Wisbech to Spalding in two hours, and to find ourselves very comfortably established there in the evening; and so the second court where our queen was to be viewed was

THE SPALDING SHOW.

And first as to the place itself, charming in its quaintness, reminding one much of Holland, with the river flowing through its streets, the quaint old houses, narrow alleys, and the well-kept gardens; and, indeed, although I was not aware of it until this visit, it is so called in all documents—"parts of Holland in Lincolnshire." Originally colonised from thence it retains its name, and has, of late years at any rate, made a greater claim in the eyes of florists at least to be so called, from its being a famous centre for the growth of Dutch bulbs, especially the Snowdrop and the Crocus. Nearly all of the former bulbs sold in England are grown here, while acres upon acres of Crocuses, Tulips, Lilies, &c., find their way from here to the London market. One of the first things I saw on entering the town was a small pony-cart, with the owner's name and "buyer of Snowdrops and Crocuses" painted on it, while over several shops one saw the same. I took the opportunity of asking a few questions, and was surprised to find that the Snowdrop was peculiarly subject to disease, I having thought that it was hardy enough to resist anything, and that it takes a hundred pounds' worth of small bulbs, or, as they are called here, "seed," to plant an acre; so that it requires some capital to invest in a bulb farm. The soil seems particularly well suited to it, and the bulbs come out with that clean shining look we are accustomed to admire so much in the Dutch bulbs. The Show at Spalding is held in gardens which are a fitting adjunct to the place itself both in name and character, Ayseough Hall. The gardens are filled with the finest Yew hedges and curved walks, trees clipped into curious forms, the inevitable pond or canal, and old-fashioned herbaceous borders; while on the green lawn the band of the 2nd Life Guards gathered round it such an assemblage of fair ladies as one does not often see, and of which I, a venerable old gentleman, may speak without an *arrière pensée*; while the kindness, hospitality, and good fellowship of all those who had to do with the arrangements tended to make it for us strangers a day of real enjoyment. Those who as Judges are lookers-on in the fray, while having

no doubt a difficult and onerous task to fulfil, are yet freed from the excitement and anxiety which do possess the exhibitor. It is the latter who can alone say with *Troilus*—

"I am giddy; expectation whirls me round,
The imaginary wish is so sweet
That it enchants my sense.

I fear it much; and I do fear besides
That I shall lose distinction in my joys,
As doth a battle when they charge in heaps
The enemy flying."

The Roses exhibited on this occasion were greater in number than at Wisbeach, although Mr. House was the only exhibitor amongst nurserymen for the cup for seventy-two blooms. His flowers were very good, as were also those shown by Mr. Draycott, gardener to Sir Bache Cunard, Mr. Farren, and Mr. Fryer. Particularly fine were Duke of Edinburgh, Marquise de Castellane, Charles Lefebvre, Etienne Levet, Dapuy-Jamain, Madame Lacharme (exhibited in good condition), John Hopper, Maréchal Niel, and other well-known flowers. There was one part of the arrangement which I think might be well copied in other places. A large tent was placed simply for the exhibitors of Roses and cut blooms to arrange their flowers in, and consequently when the proper time came each exhibitor had simply to carry his boxes to the tent, and then place them. We have seen them at South Kensington and other places shoved about from place to place, and the flowers quite disarranged before the Judges came round. Here again one's enjoyment had to be cut short; invitations poured in on us, and we might have remained some days, but we were due elsewhere. I had to be at Exeter by the next morning, and could only do so by travelling all night, and the fair city of the west must be my next trysting-place; this I must reserve for another time.—D., *Deal*.

BULBS.

FLORISTS' catalogues now contain a number of bulbs which are reputed hardy, but their hardiness must depend in some degree on the depth at which they are planted, and about which no directions are given. If planted too deep they are beyond the influence of the advancing sun in spring, as well as his ripening power in autumn; if too shallow they may be injured both by frost and drought. Nor is their depth in their natural habitat any certain guide—at least, if it is true that the Lilies in California are to be found 2 feet below the surface. Few gardeners here would like to bury their dear-bought treasures so low down. As regards old favourites, as Hyacinths, experience teaches us, but I feel dubious as to newer importations, as *Cyclobothras*, *Brodias*, and the like, many of which have very small bulbs, and yet I do not wish to continue them in pots if they will thrive in the open ground. If any of your correspondents have found such bulbs really hardy, and would favour us with a list of them, and the depth at which they have been planted, I believe such information will be valuable to many.—G. S.

MERCURY (CHENOPODIUM) AS A COOKED VEGETABLE.

SOME years ago I was in the habit of visiting at a farm not many miles from Lincoln, and I remember a large bed in a corner of the garden, and in the spring of the year the plant was frequently on the dinner-table, and generally approved of. I consider it worthy of more attention than it at present receives. I enclose a paragraph, cut from a local paper, bearing on the subject.—G. HARRISON.

"We would particularly recommend to our readers as in all seasons a first-class vegetable for early spring use the Good-King-Henry Chenopodium, or rather *Agathophytum Bonus-Henricus*, or English Mercury. This is extensively grown by the Lincolnshire farmers, almost every garden having its bed, which, if placed in a warm corner and abundantly supplied with manure, yields an abundant supply of delicious vegetables a fortnight or three weeks before the Asparagus comes in, and for some weeks afterwards. From a south border we generally commence cutting the Mercury early in April, and continue cutting until the end of June. Some of our friends say they like it better than Asparagus; but we cannot go that length, though we like it very much. When properly grown the young shoot should be almost as thick as the little finger, and in gathering it should be cut under the ground, something the same as Asparagus. In preparing it for use, if the outer skin

or bark has become tough, strip it off from the bottom upwards, and then wash and tie in bundles the same as Asparagus. It is best boiled in plenty of water, with a handful of salt added. When tender, strain and serve simply, or upon a toast. Some have melted butter with it, others eat it simply with the gravy of the meat.

"Now, in cultivation, the Mercury will grow anywhere; but to have it in the best form superior cultivation is necessary. To this end you cannot have the ground too deep nor too rich. Hence we should say, Trench the ground 2 feet deep, mixing in an abundance of rich manure, and plant your plants as early in the spring as possible. As the plant ranks among the perennials, it is necessary to get an abundant yield of shoots, and to get them as strong as possible, and hence in time each plant may be a foot or more in diameter. In planting we generally put the rows 18 inches apart, and the plants 1 foot apart in the row; and after we begin to cut we drench the ground frequently with manure water, or sprinkle the ground with guano in showery weather. Of course the plants must not be cut too severely until they are thoroughly established, say in the third year, and then you can scarcely injure them. A year or two back we grew a quantity in pots for early forcing; but we found them impatient of heat, and possibly we gave them rather too much. Spinauch with boiled ham and eggs is a favourite dish with many. Those who like it will be equally well pleased with Mercury. As the plant is a native it may be procured in many places, and those who can procure it may do worse than prepare ground and plant it at once."

ELSHAM HOUSE.—No. 2.

THE flower beds and borders are nearly all seen from the house. The first object which attracts attention is the border represented in *fig. 13*, which is situated on a gentle slope facing

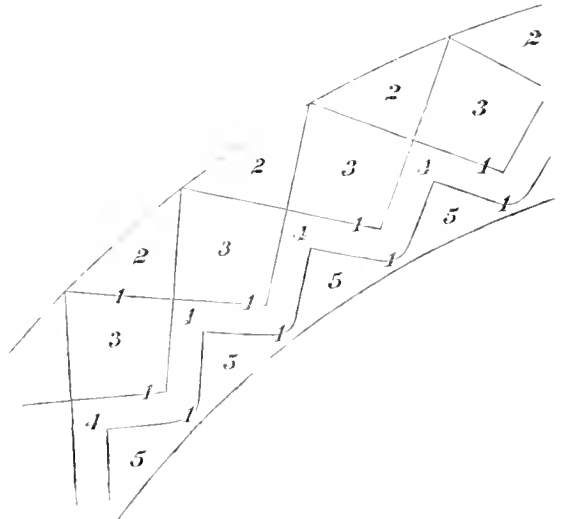


Fig. 13.

- | | |
|------------------------------|---------------------------------------|
| 1. Golden Feather Pyrethrum. | 3. White Daisy edged with pink Daisy. |
| 2. Cliveden Blue Pansy. | 4. Red Daisy. |
| | 5. <i>Aubrietia græca</i> . |

the house, but raised a few feet above the other beds, which are nearer to the house. This is a very telling arrangement. The Golden-feather Pyrethrum (1) gives it an air of brightness, which few other plants would do so well. Partly hidden from view by shrubs, near to a very pretty summer house, there is a straight border 60 yards long (*fig. 14*), 3 feet wide, planted as follows:—The first line at the back *Myosotis*, blue; 2, *White-variegated Arabis*; 3, *Cliveden Blue Pansy*; 4, *Saxifraga*, as a line of Moss or Sedum; 5, *Red Daisy*. This border is very neat and pretty.

The bed shown in *fig. 15* is a good sample of what spring beds may be made. Here 1, *Purple Pansy*, is very effective; again *Golden Feather* is most telling at 2; and *Aubrietia græca*

comes in charmingly at No. 3 on the plan. Fig. 16 is very pretty, but rather too much cut up for all the colours to show distinctly.

I have only named a few of the many spring beds at this

lovely villa residence. Not one empty bed or border was to be seen anywhere, and all were in a high state of keeping; not a weed to be seen, and the lawn like a carpet. All was very perfect.

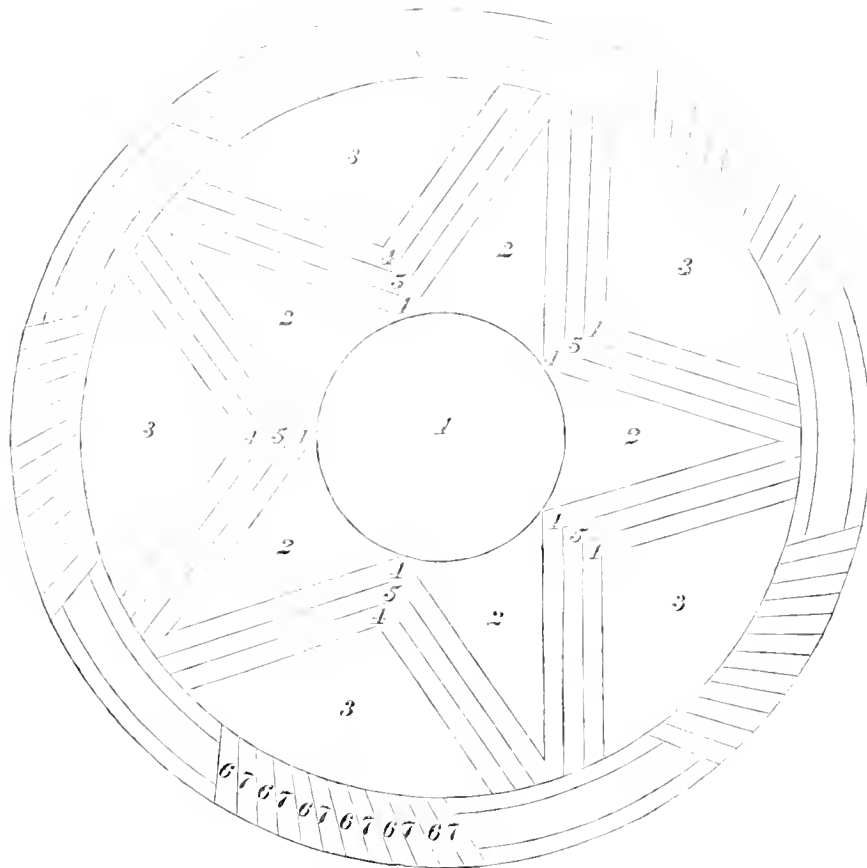


Fig. 15.

1. Cliveden Purple Pansy.
2. Golden Feather.

3. Anbrietia græca.
4. Red Daisy.

5. White Daisy.
6. Sempervivum californicum.

7. Sedum glaucum.
8. Dell's Beet.

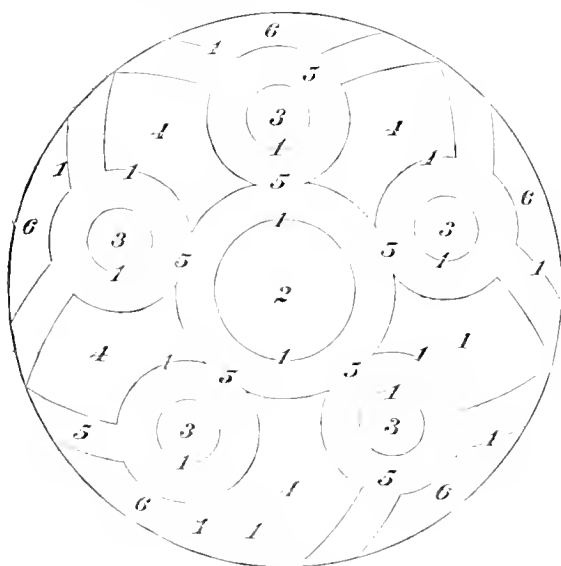


Fig. 16.

1. Golden Feather.
2. Cliveden Blue Pansy.
3. White Daisy.

4. Cliveden Purple Pansy.
5. Red Daisy.
6. Aubrietia græca.

The entrance lodge is very pretty; from it to the house there is a border about 120 yards long by 3 feet wide, and each side is planted as shown in fig. 17. Here again Golden Feather takes the lead in the arrangement, and well it does its part. There is a grass verge next to the gravel, and the border is backed up with evergreen shrubs.

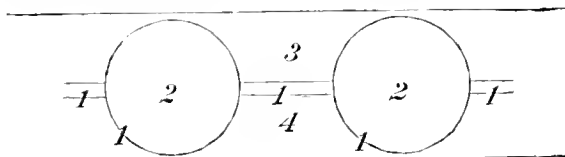


Fig. 17.

1. Golden Feather.
2. White Daisy.

3. Myosotis, blue.
4. Red Daisy.

Taking this place altogether it is the most charming piece of spring bedding I ever saw, and I question if there is much better in any part of this country. When once seen it is a sight not easily forgotten; it is, indeed, a veritable fairy scene. Standing in Mr. Hornsby's drawing-room, and having the blinds slowly drawn up, it is almost like a scene in a play; no one who has not viewed it thus can form any idea of the charming effect which spring flowers can be made to produce when taste and skill are combined, as here, in the different arrangements of the colours. Mr. Hornsby's gardener, Mr. Samuel Ellis, is certainly to be congratulated on his success in spring bedding. There is no doubt but that the gardener is well supported by a liberal employer, who takes great delight in

his garden. May Horticulture win many more such worshippers at her shrine!—JAMES SMITH, *Exton Park, Rutland*.

GLAZING WITHOUT PUTTY.

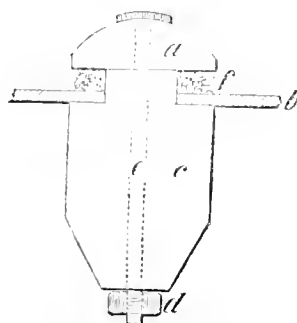


Fig. 18.—Glazing without Putty.

THE annexed is a section of a sash-bar to be glazed without putty (see fig. 18). Even if putty were used, the cap would be a great preservative and protection to it, and it can be removed to restore glass without injury to the bar.

a, Cap to be fastened through the sash-bar, with a capped screw-pin at intervals; f, Caulking of nail-bag strand saturated with white lead; b, Glass; c, d, Screw-pin with head. Brass or galvanised iron.

—V.

ROYAL HORTICULTURAL SOCIETY.

JULY 15TH.

THERE WAS ON this occasion quite a large Show, and in most respects a remarkably good one. It filled the two corridors on the eastern and western side of the conservatory with quite a brilliant glow of bloom.

Zonal Pelargoniums were the principal feature. In Class I, for eighteen florists' varieties, in 6 inch pots, both the first and second prizes were withheld, and a third was awarded to Mr. J. George, Putney Heath, for seedlings of his own raising. The best were A. F. Barron and Lord Mayo, scarlets; and Polly King, salmon. In the next class, for twelve Nosegay or Hybrid Nosegay varieties, again no first prize was awarded. Mr. George had a second prize for several seedlings, of which Grand Coup was promising, together with Mrs. Musters and Mrs. Holden.

In Class 3 for six in 8-inch pots, Mr. Catlin, gardener to Mrs. Lermite, Finchley, exhibited the finest specimens in the Show, grand plants from 3 to 4 feet in diameter. The varieties were The Bride, Virgo Marie, John Williams, and Corsair, extra fine; M. Rendatler, and W. Catlin. Mr. J. Herrington, gardener to J. Price, Esq., Thornton Road, Clapham, was second.

For six Nosegay or Hybrid Nosegay varieties in pots of the same size, Mr. Catlin was again first with excellent specimens of Douglas Pearson, Mrs. Gibbons, Miss Saunders, Rose Bradwardine, Mrs. Hole, and Mrs. F. Burnaby.

For six florists' varieties sent out since 1872, or not in commerce, the first and second prizes were withheld, as also in the corresponding class for Nosegays or Hybrid Nosegays, the third in both cases going to Mr. George.

The show of six double kinds was very poor, and the first prize was withheld, the second and third for plants in 8-inch pots going to Messrs. Wright, of Lee, and Mr. R. Watson, gardener to T. H. Bryant, Esq., Surbiton Hill. The latter also took the highest prize awarded—a second, for plants in 8-inch pots; Mr. Whittaker, gardener to S. Williams, Esq., Putney, being third.

Of Golden Tricolor varieties there was a large display of plants ranging from 10 to 24 inches in diameter, and extremely good both in growth and leaf-colouring. Mr. Turner was first with admirable specimens, the most noticeable of which were Miss Morris, Lucy Grieve, Sir Robert Napier, Mrs. Turner, Golden Queen, Prince of Wales, and W. Sanday. Second came Mr. T. Peatridge, Boston Road, Brentford, with plants closely approaching in quality, including capital examples of Lady Cullum, Sir Robert Napier, Achievement, Miss Goring, Prince of Wales, Princess of Wales, Mrs. H. Little, Mrs. Headley, and E. R. Benyon. Mr. H. B. Smith, Ealing Dean Nursery, was an excellent third. For six the prizes went to Mr. J. Hurrell, gardener to F. A. Davis, Esq., Surbiton, Mr. R. Watson, and Mr. G. Thomas, Turner Road, Lee.

For six Silver Tricolors Mr. H. B. Smith took the lead with fine plants of Mabel Morris, Italia Unita, Impatrice Eugénie, Silver Cloud, Lass o' Gowrie, and Charming Bride. Mr. Peatridge was second, and Mr. Watson third, Mr. Turner being disqualified.

Next came a class for six Golden Bronze or Bicolor varieties. Here Mr. Peatridge carried off the first honours with good plants, having nicely coloured leaves, of W. E. Gumberton, Impatrice Eugénie, Black Douglas, Crown Princess, Maréchal MacMahon, and Reine Victoria. Mr. L. Watson was second; and Mr. Keeler, gardener to H. Simmonds, Esq., Denmark Hill, third.

The special prizes given by Mr. Pearson, of Chilwell, for

twelve distinct varieties, not variegated, raised and sent out by him, in 8 inch pots, the plants to be grown with as little training as possible—if they did not bring numerous competitors, secured a splendid display of varieties which, for brilliancy of colour and freedom of bloom, it will be difficult to surpass. Mr. Catlin was first with magnificently-bloomed plants of Mrs. Mellows, Lady Belper, Matilda, Thomas Speed, extra fine; Charles Burrows, Mrs. Turner, Mrs. Tait, General Outram, Corsair, Mrs. Musters, and Mand. Mr. Birse, gardener to J. H. Lermite, Esq., was second.

Fuchsias were better shown than we have seen this year. In the nurserymen's class for eight, Mr. Mould, of Devizes, took the lead with finely-bloomed plants, averaging about 6 feet high, of Queen Victoria, Pauline, Rose of Castile, Marginata, Lustre, Mrs. Lye, and Mrs. Mould. Second came Messrs. Wright. In the amateurs' class excellent specimens came from Mr. King, gardener to R. V. Leach, Esq., Devizes Castle; Mr. Weston, gardener to D. Martineau, Esq.; and Mr. Keeler. For twenty-four in 8-inch pots the prizes went to Mr. King and Mr. James, of Isleworth.

There was only one group of six Hydrangeas; this was furnished by Mr. Aldous, of South Kensington, who had plants with from six to ten excellent heads of bloom. There was likewise a class for six Clematis, in which Messrs. Jackman, of Woking, exhibited some of their splendid specimens, taking the first prize; whilst Messrs. Outbush were second with smaller but neat plants. There was a nice show of Carnations and Picotees. These will be referred to hereafter.

In the miscellaneous class Messrs. Veitch, of Chelsea, exhibited a group which deservedly obtained a silver medal, in which a splendid plant of *Vanda cœrulea* formed a prominent centre. With this were *Ixora Willmsii*, *Ficus Parcellii*, *Abutilon Sellowianum marmoratum*, *Dracæna Baptistii*, and many other noteworthy plants. Mr. Williams had a similar award for a group, including some fine *Orchids*, *Aucubas*, &c. Bronze medals went to Messrs. Outbush and Mr. Aldous for groups of plants; to Dr. Deony for Pelargoniums of his own raising; to Mr. W. Paul, of Waltham Cross, for cut Zonal Pelargoniums; also to Messrs. Veitch for Roses. The same firm also sent a very fine group of *Retinosporas* and other Conifers.

FRUIT.

The prizes that were awarded in this department were given by the Messrs. Veitch, of King's Road, Chelsea. The fruit was arranged on a table 40 yards in length, and occupied a centre position in one of the arcades. This exhibition showed what can be accomplished when liberal prizes are offered. The complaint has recently been made that fruit has been poorly represented at our exhibitions, and this complaint has been well founded in the case of the London shows; but when a liberal prize list has been made up sufficient to compensate growers for their trouble, the result has always been, as in the present case, satisfactory. Great praise is due to the Messrs. Veitch for taking up in such a liberal spirit this too-much-neglected branch of our national horticulture.

The first class was for a collection of ten distinct sorts, and the highest position has been well earned by Mr. W. Coleman, gardener to Earl Somers, Eastnor Castle, Ledbury. His Black Hamburg Grapes and also the Muscats were magnificent. He also showed a fine dish of Royal George Peaches, Rivers's Large Early Apricot, British Queen Strawberry, a handsome Eastnor Castle Melon, Lord Napier Early Nectarine, Brown Turkey Figs, and May Duke Cherries. Mr. G. T. Miles, gardener to Lord Carington, Wycombe Abbey, Bucks, was second. His Foster's Seedling and Black Prince Grapes were good, but inferior to the fine bunches sent by Mr. Coleman. His Peaches, Nectarines, Cherries, Strawberries, and Plums were very fine. Mr. Jones, gardener to Her Majesty, Frogmore, Windsor, was third. He had a good dish of Peaches and Victoria Plums, but the collection was spoiled by containing a nearly rotten Smooth-leaved Cayenne P.n.

Collections containing six distinct dishes were sent by Mr. Bannerman, gardener to Lord Bagot, Blithfield, Rugby; Mr. J. Watson, gardener to W. E. Harcourt, Esq., Mucham Park Grapes, Abingdon; and Mr. W. Bones, gardener to D. McIntosh, Esq., Havering, Romford, who took the prizes in the order named. Mr. Bannerman had good Muscats and Black Hamburg, a Queen Pine, Bellegrape Peaches, Nectarines, and Brown Turkey Figs. Five collections were staged in this class.

In the class for three Pines, any variety, Mr. J. Stirling, gardener to H. H. Vivian, Esq., Park Weir, Swansea, showed three very fine Queens, and took the first prize; Mr. D. Wilson, gardener to Earl Fortescue, Castle Hill, South Molton, was second with three Smooth-leaved Cayennes; Mr. T. W. Bond, The Beeches, Weybridge, third with Queens. An extra prize was given to Mr. W. Sparkes, gardener to J. W. Jeakes, Esq., Winchester Hill, Highbury, for six Queen Pines.

Three bunches of black Grapes. Mr. W. Coleman was first with his Black Hamburg; Mr. J. Loudon, gardener, The Quinta, Chirk, second with two bunches of Madresfield Court, very fine, and one of Black Hamburg. Mr. J. Deaville, gardener

to Mrs. Bannerman, Wyaston Leys, Monmouth, was third with very well-finished bunches of Black Hamburgh. An extra prize to Mr. R. Fleming, gardener to R. Houghton, Esq., Waterloo, Liverpool, was well deserved. He had fine bunches, though the berries were not sufficiently thinned-out.

Mr. J. London exhibited two grand bunches of Golden Champion, and an equally fine Muscat of Alexandria, and gained the first prize in the class for white Grapes. Mr. W. Coleman was second with Muscat of Alexandria, very fine; and Mr. Woodbridge, of Sion House Gardens, Isleworth, third with the same variety.

Six Nectarines, one variety. Mr. J. Gill, Spring Place, Bradford, was first with very fine Violette Hative; Mr. W. Kemp, Albury Park Gardens, was second; and Mr. W. Coleman third with the same variety.

There were no less than twenty-two dishes of Peaches. The first prize was given to magnificent fruit of Royal George from Mr. J. Heamen, Eaton Hall, Congleton. Mr. J. Richards, gardener to Baron Rothschild, Gunnersbury Park, Acton, was second with very fine well-ripened fruit of Bellegarde; Mr. G. Sage, Ashridge Park Gardens, Great Berkhamstead, third with Royal George, also highly-coloured. Extra prizes were given to Mr. T. Pitt, Bury Hill, Dorking; and to Mr. W. Coleman.

Mr. D. Wilson, gardener to Earl Fortescue, Castle Hill, South Molton, was awarded an extra prize for ten fine Melons.

FRUIT COMMITTEE.—Alfred Smea, Esq., F.R.S., in the chair. Messrs. Barr & Sugden exhibited fruit of Daniels' Duke of Edinburgh Cucumber, grown from seed obtained from Messrs. Daniels, of Norwich, which proved to be Marquis of Lorne. They also exhibited Dyer's Champion and Telegraph, which proved to be synonymous. Mr. Johnson, The Garden, Glamis Castle, N.B., sent specimens in the haulm of Allan's Champion Pea, which appeared to be a desirable variety, and which was recommended to be tried at Chiswick. Mr. N. Dean, of Bedford, sent a Lettuce called Murray's Champion Cos, which was passed. Messrs. James Carter & Co. exhibited a collection of forty-five varieties of Lettuce in pots, to which the Committee recommended that the Council should award a bronze medal. Messrs. Carter also exhibited a very interesting collection of Peas, the plants, with pods and blooms, being dried and preserved as for an herbarium, and very neatly mounted in frames. This was a most interesting exhibition, and Messrs. Carter intimated their intention of presenting the collection to the Society.

Mr. Harris, The Gardens, Singleton, near Swansea, sent four very handsome Queen Pines, which were intended for competition for Messrs. Veitch's prize, but having arrived too late were exhibited before the Committee, and a bronze medal was proposed to be awarded to them. Mr. Perkins, Stanmore Priory Gardens, sent a handsome specimen of Enville Pine, weighing 8 lbs. 10 ozs., grown from rootless suckers planted August 17th, 1873. It was awarded a cultural commendation. Mr. Woodbridge, The Gardens, Sion House, Isleworth, exhibited fruit of a variety of Musa, which was remarkably rich in flavour, and to which a first-class certificate was awarded, subject to the determination of the name, it being grown at Sion under the name of Champa. Mr. Jack, The Gardens, Battle Abbey, sent fruit of a seedling Raspberry, but which did not appear to be superior to other varieties in cultivation. Rev. W. Kendall, Lutworth Vicarage, Wareham, sent fruit of a seedling white Raspberry, which was not equal to the old White Antwerp. Mr. David Smith, Glamis House, Forfar, sent fruit of a seedling Strawberry, which was considered not to be equal to other varieties. Mr. Bennett, The Gardens, Hatfield House, sent a Melon called Hatfield Hybrid, a cream-coloured, smooth-skinned, oval variety, very slightly netted, and with red flesh. Its flavour was inferior. Mr. Dewsbury, gardener to Lord Darulry, Cobham Hall, sent a handsome fruit of Read's Scarlet-flesh Melon, a handsome, oval, very thickly-netted variety, of a dingy cream colour; but it was not sufficiently ripe. Mr. Johnson, Glamis Castle, N.B., sent a large handsome fruit of Hicks' Scarlet-flesh Melon. It is thickly netted, and of a clear orange-yellow colour. The flavour was inferior. Mr. Johnson also sent a fruit of Duke of Edinburgh, a very large, oval, smooth, and ribbed fruit, of cream colour; but the flavour was inferior. Mr. Thomas Speed, The Gardens, Chatsworth, sent four Melons, grown with their roots in water, accomplished by renewing water three times a day. None of the fruit possessed sufficient flavour to warrant its obtaining a reward.

FLORAL COMMITTEE.—R. B. Postans, Esq., in the chair. Mr. T. Petridge, of Brentford, sent Tricolor Pelargonium Mr. H. Little, and Bronze Pelargonium The Czar. Mr. R. Dean, of Ealing, sent Lobelias and cut blooms of Carnations. These last were not of the florist's type, but were good border flowers. Mr. Lipping, of Richmond, sent seedling Pelargoniums Golden Shower and Templar, the first a golden leaved sort very similar to Golden Chain. Mr. Turner, of Slough, sent boxes of seedling Roses. Royal Standard, a fine rose-coloured globular flower, received a first-class certificate; Miss Hazard is a nice peach-coloured flower in the way of La France; Rev. J. B. Camm, and John Stuart Mill. Mr. J. Fraser, of Lea Bridge, sent Francois

Courtin, a nice crimson Rose. Messrs. E. G. Henderson and Son, Wellington Road, St. John's Wood, sent two very beautiful Somerilas, Hendersonii and Hendersonii argentea, which had first-class certificates awarded. The same firm sent Tricolor Pelargonium Sparkler; a white-flowered white-leaved sort Bridal Bouquet, and a basket of a very neat green-leaved Zonal named Distinction, with two plants of the double-flowered Cineraria, the flower deep blue and very double.

Mr. Jack, of Battle Abbey Gardens, sent flowers of Mandevilla suaveolens, produced there out of doors on the walls, where also are growing many other greenhouse plants, favoured by the warm climate of Sussex and the slightest amount of protection. G. F. Wilson, Esq., Weybridge, contributed a fine group of cut Lilies. Mr. Rudolph Barr sent a large collection in competition for Messrs. Barr & Sugden's prizes. Mr. W. Paul had a first-class certificate for his Purple Birch, several times noticed before; also for double Pelargonium Alcyonere. A like award was made to Mr. George, Putney Heath, for Sir Garnet Wolseley scarlet Pelargonium, which was also well shown in his prize collections. It has large flowers and a fine truss. A first-class certificate was also given to Mr. J. Fraser for Ixora Fraseri, one of the same batch of seedlings as I. Williamsii, and, as shown, superior to it, good as the other is. Campanula Smithii, a pretty little gem, had also a first-class certificate.

THE BEAUTIFUL AND USEFUL INSECTS OF OUR GARDENS.—No. 21.

TALKING of the Handel Festival at Sydenham suggests the thought that the season has been quite a festival one with many species of insects not at all favourites in our gardens; these have been holding, not a three-days celebration, but high revels for a month or so past. Recent rains have somewhat spoilt the sport of some; and others, having run their round of existence, have now passed away, after providing us with a future brood which we will hope may not be quite so numerous. Probably they will not trouble us next year as they have this, for there is an action and a re-action always going on. Early in the spring I ventured to predict (though aware of the usual fate that befalls prophets) that we were likely to have a run of dry weather and a host of insect pests in consequence thereof, and thus it has happened. Easterly winds and the lack of rain conjointly favour aphid-development in a remarkable manner, and these insects have been, perhaps, more troublesome to the horticulturist as yet than any others one could name.

By a recent book from the pen of Mr. Shirley Hibberd I perceive that he gives in his adhesion to the theory that aphides, and also numerous species of insects that we usually regard as our enemies, are decidedly of utility, with few exceptions, because they act as scavengers. Applying this theory to the peculiarities of the present season, it would be argued that, by unfavourable atmospheric phenomena, the juices of many plants and trees become vitiated, and so furnished an appropriate pabulum to insects which would not otherwise have shown themselves. Still, I cannot admit that when we see a twig or a leaf swarming with aphides, for instance, it is thereby demonstrated that the plant is in a sickly condition, nor even that it is most probably the case. If we see this in a garden it may be proof of neglect on the part of the horticulturist. It should be added, since I wish to do full justice to the views of those I differ from, that the circumstance is certainly remarkable how tardily the various foes of the aphid appear; whereas if they showed themselves in full activity early in the summer they would soon make a great reduction in those soft-bodied insects which fall so easy a prey to their devourers and parasites.

The Syrphii and Coccinellæ have already been considered, and they are pretty good workers in their way; in fact, the common aphid of the Plane (*A. platanoides*) seems hardly to have any enemy except a species of Syrphus, the larva of which appears to be out a good while, and leads one to suppose that there must be more than one brood annually of these flies. 'Tis strange what a variety of insects frequent the places where other aphides are congregated, not always for the purpose of attacking them, but, as in the familiar instance of the ants, seeking them out that they may glut themselves with the honeydew deposited by the aphides. Species of the order Lepidoptera settle upon it, guided thither by some delicate odour it emits, I presume; and I was last summer rather surprised to notice a swarm of cockchafer (*Melolontha vulgaris*) buzzing about a tree that was thick with aphides and honeydew, and as I could scarcely think they intended to feed upon the insects, the honeydew must have been the attraction.

Mr. Doubleday has pointed out the singular fact that some plants secrete honeydew spontaneously when in an unhealthy state without any interference of insects.

So remarkably tardy this season were our friends of the insect race that make the aphides their food, that, as I observed on several shrubs, these creatures had gone through a succession of generations, and were even beginning to show themselves in the winged condition ere the young larvæ of the Ladybirds had come out to clear off a few of them. Those that had wings might take this as a hint to depart and seek "fresh fields and pastures new." Some aphides had, doubt-

less, been picked up by birds, though these do not apparently rid us of many aphides; they give the preference to larger game. What one might call the skulkers among them—that is, those which hide themselves in rolled leaves and contorted sheets, frequently escape the attacks of the larvæ of the Syrphi and Coccinellæ, which content themselves with seizing the aphides more easily to be secured. We owe much to the exertions of a host of busy minute flies belonging to the Hymenopterous order, which are much more investigative, and seek out aphides in nooks and corners, as well as on exposed leaves and twigs. There may now be seen on many plants, mingled with the cast-off skins of aphides that have gone through their transformations, the carcasses of others that have had their interiors removed by the minute maggots which have been hatched from the eggs deposited by the aphides. It has been thought by some that the eggs of these little flies are produced late in the autumn in readiness for the coming year; but as winged females are abroad tolerably early in the summer season, the probabilities are that they make the start, though there may be several successive broods afterwards. As time advances we shall get to know more about these aphidii; they have most of them many-jointed antennæ, with wings of rather a dingy hue, as also

is the body, the legs being paler. A. Rapæ has been oftener noticed than others of its brethren; this has a black body, though the wings are of a smoky tint, and the legs, under a glass, show dark brown bands on a reddish ground. Mr. F. Walker, who has done so much towards the disentangling of the history of the aphid and its parasites, not long since published a curious account of A. Nymphææ and its aphids. In this instance the parasites were greatly outnumbered by the aphides; possibly, he thinks, they were in the proportion of about ten to one; but as the aphid in question is only found upon water plants, and so is in no way harmful to man, there is less call for effort on the part of Nature to keep it in check. This entomologist asks, "Could we not transfer to such places as needed them thousands of aphidii, taking them ere they had emerged as flies from the carcasses in which they have been sustained?" Beside the aphidii, several more of the minute four-winged flies belonging to the Chalcididæ prey on aphides, and also some that are allied to the Microgasteri, which kill so many of the caterpillars of our common white butterflies.

"What a beautiful fly!" is the exclamation one occasionally hears in the garden as that delicate insect, the Lace-winged fly, *Chrysopa perla*, is watched by some stroller as it reposes on a leaf preparatory to taking its evening flight. Admiration will be probably changed to disgust should a close inspection be attempted and the insect be touched, for, unless the handling be done very tenderly, it exudes an odour which is far from being agreeable, and no doubt serves as a defence to the species; there are times, however, when no smell is perceivable. In this and other species of *Chrysopa* the tender structure of the insect and the absence of all defensive weapons would expose

it to much peril could it not deter in some way part of its would-be foes. The large slight wings, the make of the body and legs, and the hue of green and white, relieved only by the eyes which have a golden or golden-red lustre, all bespeak weakness. Should these insects be successful, according to the Darwinian hypothesis, in so far improving themselves as to get rid of the signs of weakness and fragility, we may suppose they will then cease to be malodorous—what they lose in beauty they will gain in sweetness! Flying also with the Lace-winged flies is rather a painful process, judging from the awkward laborious way in which they make their aerial journeys. Softness is certainly not the characteristic of the larvæ of these flies, which have earned for themselves the epithet of "aphis lions," though they are scarcely so desperate in their attacks upon those pests as are the larvæ of the Syrphidæ. Not a few microscopists have hastily plucked a leaf on which was a cluster of the eggs of a *Chrysopa*, and popped it into a box for home examination, believing that they had secured some curious vegetable growth. These eggs are stalked, but I am not aware that any entomologist has seen a fly in the act of depositing them, so we are not able to explain how it is managed. They are grouped in clusters of from ten to twenty, or even more; the stalk supporting the egg

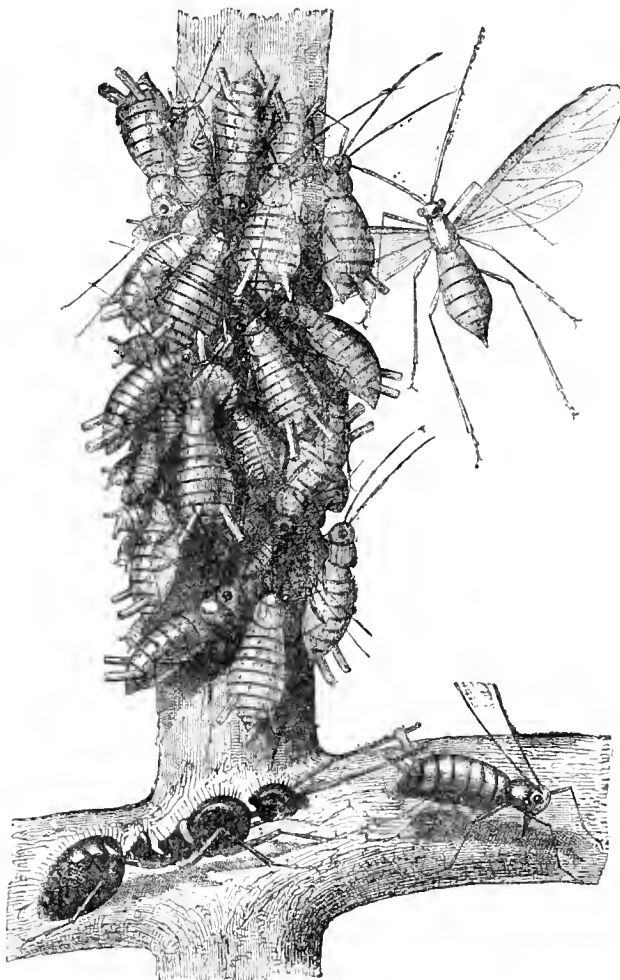


Fig. 19.—APHIDES AND ANT (magnified.)

is four or five lines in length, and, what is singular, it rests upon a small disc or plate of a silvery appearance attached to the leaf. We do know a little about the emergence of the young larvæ, as they have been noticed in the act of eating a hole in their shells, and then crawling down the stalk or peduncle, not dropping to the leaf. These are furnished with six feet, and are able to move with rapidity over the leaves and flowers of plants; they are less frequently seen on twigs or branches. Like others in the same Neuropterous order, they are apt to be spiteful towards each other should they come into collision by accident, but their staple food is aphides. Having fattened-up, each larva spins a silken cocoon, in which a few weeks is spent by the pupa ere it bursts the shell to appear as a winged insect. One of the old authors on entomology gave to these flies the name of Hemerobii, the derivation of which tells us that it implies they live only for a day. This is a slight error, as their existence in the fly state lasts longer than that, and "*Chrysopa*," appropriate to their golden and sparkling eyes, is a mere suitable designation. The French have chosen to

call them Land Dragon-flies, which hardly fits-in with the very pacific character of the mature insect.

A full list of the enemies of the aphids would not be brief, and I place upon it some that other authors might reject. Thus, I have for a good while held to the opinion that ants not only milk aphides, but sometimes devour them (see *fig.* 19), and the like belief is held by those who had devoted more time to the study of ant-economy than I have. As no mean authority on the opposing side, Mr. F. Walker must be named, since he regards ants as the invariable protectors of the aphides, though for selfish ends entirely. It is well known that they collect them and keep them prisoners, and with such omnivorous propensities as ants have it does seem that they would not much hesitate at eating their cows, supposing food ran short. Earwigs, herbivorous in the general way, feed also upon aphides and small fry of the insect races when inclined for a little variety. Then *Aphis vastator*, which has furnished a figure for a comic slide in a dissolving view, seated squat upon Paddy's favourite vegetable, and representing "*Aphis vastator*," makes prey of its own brethren, though, as I have failed to meet with or at least identify this species, I cannot vouch for this from personal observation. The fact has been several times stated by naturalists, some of whom have, I think, now placed it in a different genus. Another friend, not to be ranked with the insects, but properly a Crustacean, is the spider; the webs spun by several species will be found to swarm with aphides at this season. On some Lime trees, where the aphides were just appearing in the winged form, I have noticed that hundreds of the leaves are bespread with small webs, which trap the aphides beautifully, and destroy, indeed, a great many more than will ever be eaten by the spiders.—J. R. S. C.

CROTONS (CODIÆUM).

In my early days amongst plants *C. variegatum* and *C. pictum* were the two kinds which represented the genus in our plant stoves; and even now, amongst so many fresh introductions, these fine old plants nobly stand their ground. In this year of grace, however, we have so many kinds to make a selection from, that it is a somewhat difficult task for even an old hand to choose aright. It is therefore by no means surprising that a young amateur should get slightly bewildered, a state into which your esteemed correspondent "*T. J. H.*" had probably fallen when he turned towards you, Messrs. Editors, to help him. In the few remarks I intend offering it may be that some besides "*T. J. H.*" may find something of advantage; although, be it remembered, I am far from holding the opinion that Crotons can only be successfully grown in the way which I here describe, although the system here advocated has brought me a fair share of success.

To be handsome, Crotons should be furnished quite down to the pots. When this cannot be done naturally, recourse is often had to sticks and strings to produce the effect. For myself, however, I have a decided objection to the training of these plants in any shape or form, for the proper way to show or grow them is in the shape of handsome bushes. Amateurs making their selections should choose short-jointed plants, but these who have lanky young plants should cut them down and insert a branch having a whorl of shoots to it. In this way a young plant may be obtained with laterals close to the pot, and the foundation is at once laid for a handsome pyramid. Such young plants are more expensive to purchase than those having a single shoot only, as a matter of course; but then it is penny-wise-and-pound-foolish to study price rather than quality with these as with most other plants, for, if a proper start is not made, how can one hope to progress satisfactorily?

Crotons are robust-growing plants, and should be well supplied with food. Nevertheless, I think many cultivators err in affording them overmuch pot-room; for whilst I should certainly avoid letting them get much potbound, saving with very old plants, I certainly am of opinion that they like (to use a gardeners' phrase) to feel the pot. Indeed, not only with these, but many other ornamental-leaved plants, there seems to be a great desire, amongst amateurs especially, to get their specimens into large pots; and I mention it here because, both from practical experience and close observation, I am firmly of opinion that in the majority of cases it is a mistake. In potting, drain well. Use rich turfy loam for soil, to which add a portion of sharp sand to keep it porous. Pot firmly, and give only moderate-sized shifts. Let them be well rooted to

the sides, and the pots become well filled with roots before repotting. They enjoy a liberal supply of water both upon their foliage and at their roots, and when they are well rooted an occasional application of liquid manure will be found of immense benefit to them. In order to induce them to put on their rich colouring they must be kept well up to the glass and have full exposure to the sun's rays; and lastly, good strong heat with a moist atmosphere is absolutely indispensable to their welfare.

The following in my opinion are the best dozen varieties now in cultivation. Many others are very beautiful; but when the collection must be limited to this number these would be my selection, all being extremely handsome and thoroughly distinct—

- | | |
|----------------------------|----------------------------|
| 1. <i>C. Weismanni</i> | 7. <i>C. lacteum</i> |
| 2. <i>C. Hookeri</i> | 8. <i>C. variegatum</i> |
| 3. <i>C. angustifolium</i> | 9. <i>C. Johannis</i> |
| 4. <i>C. Youngii</i> | 10. <i>C. pictum</i> |
| 5. <i>C. undulatum</i> | 11. <i>C. irregularare</i> |
| 6. <i>C. Veitchii</i> | 12. <i>C. multicolor</i> |

—EXPERTO CREDE.

WHAT A PRESERVING STRAWBERRY SHOULD BE.

It is surprising that even in these enlightened days many persons look upon all Strawberries as equally well adapted for this purpose, but such is not the case really. Perhaps—may, I am sure—there is no class of fruit in which so great a difference presents itself. A good Strawberry and a bad preserver will not attain the desired end. A middling fruit with a good preserver will do wonders, but to have a fine preserve all things must be right. What, then, should a good preserving Strawberry be? In my opinion it should have at least three or four essential qualifications, and each so close on the heels of the other that I knew not which to place first. Colour, flavour, and substance are so necessary that to want one of them is simply to be without a good preserving Strawberry. Though size is a secondary consideration, a medium size is always preferable; and then there is condition or ripeness not to be overlooked, also time of gathering.

I will suppose colour to be the first essential. It should be as red as possible throughout, the deeper the colour the better. A white-fleshed fruit is most objectionable. Did you ever see the two after having been preserved? If so, they must have been a lesson that you could not have forgotten—the one rich and tempting, the other an uninviting, disagreeable, tasteless mass. Why I think colour goes first is because it is difficult to hide it, and a good-coloured dish of anything on the table is sure to entice someone to partake of it. Flavour can be concealed to some extent, and the true one only missed by the old fruit-eater; but a badly-coloured preserve will often be passed though good in flavour. This is demonstrated daily to those who have to do with fruit.

As regards flavour, few cooks or housekeepers know what is best for a Strawberry to have in order to make the best preserve; there are a few, no doubt, and gardeners too, but they are the exception. Ten out of twelve would take the sweetest fruit; but such are not the best, on the contrary, always to be rejected when those of a subacid or acid flavour can be had. The varieties commonly called the Pines are what I allude to. From possessing the acid flavour they "take" the sugar much better than others. Strawberry preserve is not a general favourite except with children, for the very reason that it is naturally of a flat sickly taste, we therefore greatly enhance its value by choosing such varieties. A sweet Strawberry of the Queen class will not take sugar well, and is often spoiled in a short time; it seems to ferment more, will not keep nearly so long, and is always too sweet to be relished by most people. There are Strawberries somewhat between the Pine and the Queen—for instance, Keens' Seedling and Black Prince—that will make excellent preserves; but less sugar should be used than with the Pine-flavoured.

It seems almost unnecessary to say a word about substance. It must be apparent to all that a solid Strawberry will be preferable to a soft woolly one; in fact, it should be as "solid as a rock," the more so the more substance will be found in the jam; and in cases where the fruit is preserved whole it is all-important that it should be so.

I will just add a word or two on other points. Condition and ripeness should be particularly attended to. A good fruit should not be too ripe, if so it loses its flavour, and that can never be replaced. I have no faith in leaving quarters until

half are "dead" ripe in order to secure a large bulk to "go in at once." Quarters should be looked over twice a-week at least. Care should be taken about all the fruit being thoroughly ripe, otherwise the flavour cannot be there. Men and women are often careless about this if not looked after, and good preservers will not use the fruit, so that it is only gathered to be thrown away. I need hardly remark that the fruit should be gathered without being bruised; the less they are handled the better (I have seen some completely smash them in doing so), nor should too many be placed in one lot. They should likewise be taken to the house as soon as gathered, and, to keep matters smooth, the all-important person should be informed of their coming a day or two beforehand. Never gather when wet, and the longer after rain the better. I do not care to gather in the great heat of the day; when dry weather sets in, I prefer evening, or from ten to twelve in the morning.

I dislike the idea of "anything will do for preserving," sending the best to the table, and then the small to come in for boiling-down. A quarter of the best, and that of a suitable variety, should be grown expressly for the purpose. I do not believe in mixing different sorts together; one or two varieties are ample, and they should be Myatt's Eliza, the best of preserving Strawberries, or the Elton Pine. Many others are good; indeed, if they possess the qualities I have enumerated, do not despair of good results if they are properly treated afterwards. Too often they are spoiled before boiling-down. It has just come to my knowledge that a large lot has been kept six days before being so treated.—JOHN TAYLOR, *Hardwicke Grange*.

FRUIT PROSPECTS—WEST NORFOLK.

Some months ago I wrote to you stating that the prospects of the coming season were not promising, and since then there has not been much improvement, Apricots being almost the only wall fruit that will be worth anything. Plums bloomed and set most profusely, but at present are conspicuous by their absence, having, as I believe, succumbed to the coldness of the weather, and a succession of dry harsh winds accompanied by frequent frost. The wood has broken very badly, and the prospect for another year does not at present look very encouraging. Pears are middling, Apples very thin, and the trees look cut very much, and not at all healthy. Bush fruits are plentiful, particularly Gooseberries.

Your correspondent, "G.," speaks of Gooseberries being still called "Thebes" in Norfolk. I think Peabes is meant, though more usually pronounced Fapes. Culpepper speaks of the Gooseberry as the Feaperry, Gerarde calls it Feaberry bush, Tusser speaks of it as being cultivated in the reign of Henry VIII., and perhaps the gentleman who has favoured us with the interesting articles on Tusser may be able to tell us what he calls it.

We have had some very sharp frosts lately, the last being on the night of the 20th of June, when bedding plants and Potatoes were much cut, the Potatoes in some instances being cut nearly to the ground, and generally presenting a blackened appearance. A temperature of 2° below freezing was registered at 5 feet from the ground, but I think on the ground the frost must have been double that or more. On the 2nd of July the thermometer rose to 88°, thus in about twelve days showing a variation of something like 60°. Such a frost is not remembered here by the oft-quoted "oldest inhabitant."—JOHN PLATT, *Gardener, Hillington*.

STRAWBERRY RUNNERS.

GENERALLY speaking people are not very successful in producing a good crop of fine fruit the first year after planting. I have found the following plan a most satisfactory one. Select the largest plant on each runner, cutting off all the others. Under this plant take off from 2 to 3 inches of soil with a spade. On the same spot lay a thick piece of turf, 3 inches by 6, with the grass side downwards; on the turf place the soil in the spade, on this rest the young plant; a little good dung would assist the growth. At the proper time remove the plant with the turf to the new bed. The turf will be found to be full of vigorous fibrous roots, and the plant double the usual size.—OBSERVER.

THE CANDLE PLANT I have in one of my houses. It is the plant referred to in your paper, and it is by no means a rare plant in this district. A clergyman gave one to me some years

ago, from which I have raised several plants, distributing them among my friends; and should your correspondent wish for a plant I shall have great pleasure in giving him one, either a plant or cutting (offshoot). They are by no means difficult to strike. The plant is more curious than pretty. The blossom is very poor, resembling the common Groundsel.—E. W. RUSSELL, *The Cottage, Springfield, Chelmsford*.

FLOWERS FOR OUR BORDERS.—No. 36.

PENTSTEMON WRIGHTII.—DR. WRIGHT'S PENTSTEMON.

THE subjects previously selected for illustration from this popular genus have been chosen from those bearing blue flowers. Our present selection, *Pentstemon Wrightii*, is taken from those producing red flowers, and if not the most valuable of its class, it is nevertheless one of the most interesting and distinct of the species.



Fig. 10.—*Pentstemon Wrightii*.

It is a native of Texas, and requires a little protection in winter, for most of the species from thence are somewhat tender; but this will hardly prove an obstacle to its adoption in an age when greenhouse plants are so largely employed for open-air decoration.

It is readily raised from seed, and if sown early, the young plants would probably flower the first season. It is, however, best treated as a biennial, the seed being sown in March or April; for although the plant is reputed to be of perennial duration, and will often survive two or three years, so far as we have seen, it never blooms effectively more than once, especially when allowed to ripen seed.

It may be conveniently grown in pots the first season to allow of its protection in a frame during the winter months, but should be planted out the following spring as early as circumstances permit. It grows from 2½ to 4 feet high, and bears a very long branching panicle of flowers. The lower leaves are spatulate, and lengthened at the base into a narrow petiole; the upper ones are almost heart-shaped and sessile; all of them are smooth, and with margins destitute of serratures. The corolla is remarkable for its spreading limb, and has been compared, not inaptly, to that of the *Achimenes rosea*, which it also resembles in colour. The intense rosy carmine of the flowers, which are borne in June and July, is quite unrivalled in the genus, especially for a few days after expansion; subsequently this tint loses a little of its depth, but this rather adds to than detracts from the general effect.

It was first introduced to the Royal Gardens at Kew in 1850,

and flowered there the following season.—(*W. Thompson's English Flower Garden, Revised by the Author.*)

HUNSTANTON HALL.

THE SEAT OF HAMON STYLEMAN L'ESTRANGE, ESQ.

NEVER were family, mansion, gardens, and park more in harmony than here. There is a solidity and antiquity characterising all the surroundings that are befitting an uninterrupted possession of eight hundred years. Why, there are rows of Cardoons in the kitchen garden which I had not seen grown for blanching within the last fifty years, and which the gardener recently appointed had never before cultivated.

Hunstanton Hall is about 2½ miles from the railway station, the road passing parallel to the sea and by the lighthouse, the keeper of which, by-the-by, is an indefatigable gardener; and

turning down by the church you reach a wall which might be mistaken for a bastion of some old battery, for it is not straight, but in this crenelated fashion, surmounted by a closely-clipped Holly hedge some 6 feet high. This crenelation is of the wall's face, not its top. Through that wall you enter a long, dark, subterranean passage, and at its end emerge into the kitchen garden, of which more presently. The tradition is, that at a tournament held in the time of William the Conqueror at Castle Peverel in the Peak of Derbyshire, among the nobles and knights present were two sons of the Duke of Bretagne; and the younger, named Guy, was by way of distinction designated Guy le Strange (Guy the Stranger), and from him descended the families of the Stranges. They had estates in Shropshire, Northamptonshire, Norfolk, Leicestershire, and Gloucestershire. This Guy L'Estrange received



Fig. 21.—HUNSTANTON HALL.

Hunstanton and other estates from an elder branch of the family; and when the grant was confirmed to one of his descendants in 1342, it was on the condition that he rendered annually to the representative of the grantor a Rose at the feast of St. John the Baptist (Midsummer-day), in lieu of all other services. From that time Hunstanton has remained in their possession uninterruptedly. The name of Hunstanton is literally "Hunna's residence." That Anglo-Saxon was probably deprived of his estate by the strange Norman, but it deserves remark that a Mr. Hunn is a principal farmer here. Who can prove that he is not an offset from Hunna, whose descendants have lingered here?

The principal entrance to the quadrangle, which is really now the back of the house, is on the east side through a stone-arched gateway bearing the date 1623, and various heraldic bearings and mottoes, "Dirietur possessionem" being one, and "Ubi non est sepes" another. To the left of this quadrangle is a second; and in its centre, standing alone, is another arched stone gateway, also bearing the L'Estrange arms, and dated 1618. The greater part of the mansion still remaining was built by Sir Roger L'Estrange, who died in 1506; but the gateway, granaries, and other outbuildings of the first quadrangle were erected by Sir Hamond L'Estrange in 1623. Recent additions have been made. The house was moated, but the moat remains perfect only on the east and west sides. The

wall in front of our drawing is the side of the western moat. The family, either immediately or collaterally, have been connected with the three families of the Norfolk proverb—"Never was a Paston poor, a Heydon a coward, nor a Cornwallis a fool."

In the "Household and Privy-purse Accounts" are various entries which may interest many of our readers, but we will make a few extracts only from one in Henry VIII.'s reign. Money then was from ten to twelve times more valuable than now. In 1519-1522 for "six gees" 20*d.* were paid; for "six checcous," 6*d.*; for "2 lbs. sugar," 13*d.*; for "three chaldre of colys," 16*s.*; and for fifty eggs, 6*d.* There are continued payments for all departments except the garden, so it is not surprising that there are "rewards" to servants and others who brought as presents "Strawberries," Apples, "Graps," "Peachys," "Medlers," "Fyggs," "Wardens," "Orangez," and "Lemondes."

Now for the gardens, beginning with the kitchen garden, the first I entered. It is unique in arrangement, being divided into portions by hedges clipped uniformly, each about 8 feet high and 6 feet wide. Some are of Yew and some of Holly. They are capital shelters; but the gardener, not being an antiquary, evidently thought that walls would afford quite as much shelter and might be made much more productive. The

kitchen garden is seven acres, walled round, and its crops all looked well, and were evidence of good cultivation. Pears are abundant, and so are the Plums and Cherries, both on standards and walls, but Apples are a total failure. This may be accounted for by the frosts, which usually occur earlier, not occurring this year until the Apple trees were in blossom. At present the only glazed structures are a late viney and an orchard house, but others are to be erected. The Peach, Nectarine, and Apricot trees, all grown in 12-inch pots plunged to the rim in the border, were abundantly fruitful, and all past the dangerous period of their stoning—dangerous only, I think, when proper culture is neglected.

Proceeding to the pleasure grounds I passed the apiary, of which no other remark is needed than that the bees are all in the old bell-shaped hives. The dressed grounds are about four acres in extent, and are chiefly lawn. Facing the west front on the lawn is a square enclosure, as shown in our woodcut (*fig. 21*) the hedge 3 feet high of clipped Yew, and the space within is occupied by variously-shaped flower beds. The Roses—whether bush, or standard, or against the walls—were most healthy, most profusely flowered, and the coloured flowers intense in all their tints.

The Yew hedges are the great characteristic of the grounds. One broad walk some hundreds of yards in length, with broad turf on each side, and that turf terminating at the foot of a lofty Yew hedge, passes in a straight line from the west front of the house; and the appearance of the house from the most distant end of the walk is very effective. Another broad walk full 100 yards long, at right angles with the other, has similar hedges, but on the turf on each side is a row of thirty-two very symmetrical Irish Yews, that are in good accord with the other arrangements of the garden.

Various spaces enclosed by lofty clipped Yew hedges are in other parts of the garden. One of them will in the course of years form a circular domed room, for the hedge is clipped so as to bend inwards with that object in view, and the branches of a Yew planted in the centre are spreading out to meet those of the hedge.

Although a notice is posted up at each of the park gates that "trespassers will be prosecuted according to law," I was allowed to be an exception, and am grateful to the gardener, Mr. G. Nesbit, for his courtesy and attention. It is usual to add some praise of the gardener's skillfulness; but I shall only paraphrase the epitaph on Sir Christopher Wren—"Go to the gardens and look around."

From the gardens I passed into the park; it and the gardens are four miles in circumference. The park is of very varied surface and beautifully wooded. The trees of all species are fine and ancestral, but especially the Oaks and Elms. The White-thorns, single-stemmed and trees in size, are scattered numerously and singly. In one part of the park, unfortunately far from the house, are many good *Arcaurias*, and some of the finest *Deodars* and *Picea Nordmannianas* I have ever seen. Their stems at 4 feet from the ground are nearly 12 inches in diameter, and the *Deodars* must be 50 feet and the *Piceas* 40 feet high. They are all vigorous, and with branches outspread all round to the surface of the turf. They are evidence that the soil and situation suit Conifers, and suggest that those I have noticed deserve to be companioned so as to form a pinetum.—G.

MR. T. APPLEBY.

VERY early in our career we had Mr. Thomas Appleby on our permanent staff of contributors, and he only left us to occupy what promised to be a more lucrative position. Rheumatism and paralysis have vanquished him. He is now seventy-nine, and requires aid in the closing period of life. He has been elected to a pensionership of the Gardeners' Benevolent Institution, but he will receive no assistance from it until next October, and is now in great distress. We ask our readers, therefore, to aid him. Any donation, however small, may be sent to him at his lodging, 263, Morton Street, Park Avenue, Longsight, Manchester.

THE ROSE SHOW AT LYONS is put off to September owing to a hailstorm, or rather an icestorm, which occurred on the 26th of June. Pieces of ice as large as one's fist fell, weighing 1½ lb., which broke nearly all the glass in the greenhouses, many of the windows, chipped pieces off the walls, and broke the tiles on the houses in many places. The flowers and beds of the Roses were destroyed, and pieces of bark and wood

were cut out of the branches. At Charpennes a Rose-grower rushing out to cover his glass had his hands fearfully lacerated. On the 2nd and 3rd of July the heat was excessive, exceeding 90° in the shade.—W. PAUL.

INFLUENCE OF THE GRAFT.

IN a translation of the work of George Galesion on the Orange family, published in the New Orleans *Home Journal*, we find these observations on the effect of grafting on the fruit, and its connection with the stock:—

We must acknowledge that the graft does influence all that belongs to the development of the vegetable organs, as well as culture and the soil. A graft is an individual which is forced to live upon a root which is strange to it, and not regularly adapted for its natural nutrition. But this root is equally assimilated to the soil. If its organs are able to furnish the graft with all the aliment it is capable of assimilating, or more, this latter may take on a wonderful growth, which it might never have done upon its own root, or it may remain feeble and slender if the root which sustains it is not capable of supplying it with all the aliment it requires. These different circumstances can, as well as culture, bring about the phenomena that the Service Tree of the hunters presents when grafted upon the White Thorn, *Mespilus Oxyacantha*. The Service Tree, *Sorbus Aucuparia*, grows more rapidly, and acquires more size and fecundity; and also that of Apple of the fields, which, grafted upon the Apple of Paradise, becomes a little shrub, frail, almost without a trunk, and the branches scarcely attain the height of 3 metres. These phenomena are due solely to the abundance or the lack of nutrition, and present otherwise no changes, except in the greater or less development of the different parts of their growth.

Another remarkable effect has been observed in ordinary grafts. Every grafted plant seems to display, at least for a certain period, a luxuriansness of foliage greater than that of the free tree, when the graft has been taken from an individual of that nature; but this phenomena is due to a very simple cause. The free tree develops a great number of branches; it yields fruit only every two or three years, and when it does bear, it sets them on its branches in such a way that it costs great labour to nourish them. From the moment it is grafted there are several changes produced in it. Its wounded and tufted head disappears, and is replaced by the solitary branch which has to nourish itself all the sap of the root. It spreads, it is true, but it never replaces wholly the branches which usually crown the free tree. A grafted tree is always thinner and less tufted; therefore the foliage is better nourished and handsomer, and the fruits, which are always less numerous, are larger and more savoury.

Another circumstance, perhaps, also influences the greater elaboration of fruit in grafted plants. The graft unites a branch of one variety to the root of another; this union being unnatural, forms a sort of a knot at the point of insertion, which arrests the rapidity of the sap's flow. We know that by this artificial retardation in the course of the sap, we succeed in feeding our buds better, and produce thus more fruit buds than leaf. A tree which does not fructify is often rendered fertile by an excoriation near its root. The cultivators of vineyards bend the twigs and break them slightly at the point where they desire fructification to begin; and I have obtained Oranges of immense size by twisting or crooking the branches which bore them. All these means are well understood by cultivators, and it is not doubtful that their effect is due solely to the greater slowness in the course of sap, which, therefore, influences the quantity and the quality of the fruit. But these are the limits which nature has fixed upon the influence of the graft upon vegetation. It facilitates or hinders their development, but it never changes nor modifies their form, their proportions, their juices, or their colours; never has the graft changed a wild Pear into a Butter Pear, nor a Butter into a Muscat Pear; the fruit of the Bigaradier is never ameliorated, nor does it lose its bitterness by the operation of the graft. I have a root upon which I have already grafted three times upon itself, graft upon graft; it gives me larger fruit, but the fruit does not otherwise differ from those of the plant which supplied the buds.

The graft is nothing more than a kind of budding. It places the branch of one plant upon the root of another; and this branch or sprout which contains in itself the rudiments of the plants which should come out of it, only drains from the stem upon which it is fastened the alimentary juices

which are necessary for it, in the same way that the natural bud would draw them immediately from the earth. It may be that in the passage which these juices are forced to make throughout the roots and the stems of the subject, they reach the fibres of the bud better elaborated than they would have been if drawn directly from the soil. But whatever may be the state in which they may be found at their entrance into the fibres of the bud, they will always be modified by the organs of that individual, as those would be if drawn from the air, or those drawn from the earth, if they were placed in it without interception of another plant. Experience has confirmed these principles, and the world is convinced that a graft does nothing more than to perpetuate species or varieties without altering them.

I have made in the course of fifteen years a series of observations upon this subject, keeping always the mother plant side by side with the grafted one. I have grafted Oranges upon Lemons, Lemons upon Oranges; I have grafted the sweet Orange upon the Bigaradier, and reciprocally I have grafted Apricots upon the Plum, Peaches upon Apricots, and I have not been able to see the slightest difference between the fruits furnished by the graft and those of the plant from whence it was taken. I have never obtained any other result from these experiments, except simply to preserve rare varieties which I was not able to propagate from seed, from the double reason that they very rarely had seed, and if they had they so frequently produced degenerate varieties.

NAMES OF PLANTS—ENGLISH VERSUS LATIN.

My friend asks, "What is this pretty flower?" "Gelasine azurea." "What a long name!" "I cannot shorten it." "But why have a Latin name? Better call it *Blue Smiler* in plain English." "Then you like such names as Shamrock, Blue Bella, Eglantine, and Culverkeys?" "Certainly, everyone can understand them." "You can recognise the plants?" "Easily." "Well, I can show you in print endless discussions as to what they are. On the other hand, I defy you to produce two persons who disagree as to what plant is meant by *Eucharis amazonica*. Now, look at page 32 of 'our Journal.' Would you like some of the plants described in the *American Christian Weekly*? The Night-blooming Jasmine must be very desirable, but what European nurseryman could understand the name? Looking down Don's long list, he would at last hit upon *Jasminum noctiflorum*; but as this is a native of Sierra Leone, it is not likely to be the right plant. Paradoxical as it may seem, Latin is in such matters more intelligible even to an Englishman than English."—G. S.

CERCIS SILIQUASTRUM.

WHILE visiting the Botanic Gardens at Leyden, in Holland, at the beginning of May, I was very much delighted with the beauty of this curious yet beautiful plant. In the above gardens there are three grand specimens, one against a west wall and two others against a south wall. The circumference of one of these, at 6 feet from the ground, is about 12 inches, the stem reaching to the top of the wall, which is from 15 to 18 feet in height. At the top of this wall the branches extend in a horizontal position to the length of 45 or 48 feet.

During my visit the whole of these trees were covered with their beautiful blooms. The flowers, which are of a bright rosy pink, are produced in bunches from the old wood, without any foliage, which has a very curious yet beautiful appearance.—A. M. C. JONORINDT CONINCK, *Tottenham Nurseries, Dedemsvaart, near Zwolle, Netherlands.*

A NEW MODE OF GLAZING.

IN answer to Mr. Robson, the practical value of nail-bag strand is its being a soft medium for utilising and retaining white lead (which will dry and harden), and so rendering the latter effective for the object of fastening the glass and keeping-out water. Cotton or Flax fibre might do equally well; but I think the white lead would render the other just as durable, and it is of no cost, and ready made.

I quite assent to Mr. Robson's objection to a strip of wood having to be removed to replace broken glass, but I do not consider this would be necessary; and if a groove were cut out of the solid bar for the glass, the caulking could be taken out, if required to replace glass, where wanted. There would be no chipping of the wood as in the case of putty. I do not

consider that this caulking would swell at all; the oil in the white lead should, and would, effectually resist moisture. I have not tried this for glazing. The idea suggested itself on reading the article in your Journal of April 9th, page 287. I have, however, found the caulking answer perfectly and permanently in stopping leakage in a lead gutter, and cracks in walls and joints in coping, and all I can say further to Mr. Robson is, "Try it."—V.

HEATING.

WE have received a very long communication on this subject, but can only insert the following:—A correspondent expressed an opinion that a combination of something like the "Arnott," plus boiler and piping, would be "an effectual and economical heating medium." A combination somewhat analogous has just been brought out by Dennis & Co., of Chelmsford, and I annex a section of it (*fig. 22*). Mechanically it is

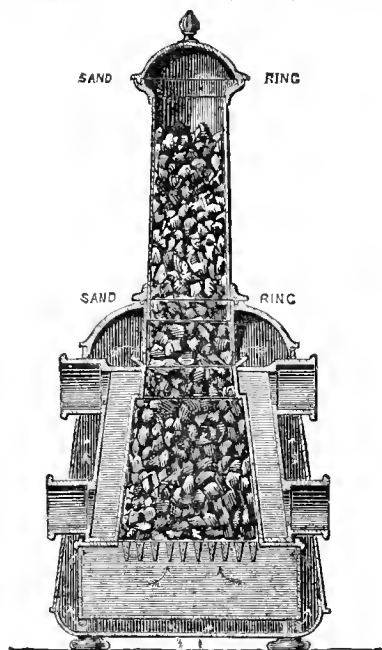


Fig. 22.

an independent boiler surrounded by an air-casing. Again, part only of the atmospheric air necessary to sustain combustion is allowed to enter the fire below the bars; the remainder traverses the casing in the direction of the arrows, and is drawn (by this time partially heated), into the fire at the top of the burning fuel; so that in this boiler we have a parallel arrangement to what is known in the steam engine as the jacketed-cylinder and feed-water heater.—(G. FAWKES.

DAMP WALLS.

If salt is the cause, I know nothing effectual. Sea sand used in mortar, hair from salted hides, hanging fitches of salt bacon against walls, are common sources of the evil. The salt gets into the bricks and it becomes a chronic disease. Mr. Robson says battening inside "cannot be done" in his case; but will this avail him?—strips of wood 2 inches by half an inch nailed horizontally or vertically on the interior of the wall, and on these half-inch deal boards. These may be formed into panels, according to taste and space, by nailing on 1-inch-by-half-an-inch stiles, moulded on the edges. The boards should be dry and the joints rebated, and, of course, planed on one side. This, stained and varnished, makes a comparatively cheap and permanent lining to a room, and is very effective. If Mr. Robson liked to be at the trouble of removing the plaster, this boarding would occupy little if any more space.—V.

Your correspondents who suffer from damp walls should try the petrifying liquor of the Silicate Paint Company, Fenwick Street, Liverpool. I have not tried it for an outside wall, but I have tried it on the inside wall of a cellar made of porous red

sandstone and saturated with damp. It is now a good dry meat larder.—H. W.

DESTROYING WASPS.

A much less complicated plan of taking wasps' nests than that described in last week's Journal, is given below.

Take half an ounce of gunpowder with or without a pinch of flour brimstone, wet it with a few drops of water, and with a spatula or case-knife crush the grains of powder, and make the whole into a mass of the consistence of wet clay; roll it up into the form of a cartridge, wrap a bit of paper round it which has been rubbed with a little of the powder to make it into touch-paper, lay it aside for a short time to dry, and then when you want to take the nest set fire to the touch-paper, and as soon as the fire reaches the powder thrust it into the mouth of the nest, and immediately cover it up closely with a sod. In two minutes all the wasps will be torpid, and by digging the nest out and putting it into boiling water the whole brood are destroyed.—T. G.

DEVON AND EXETER ROSE SHOW.

[Our report having from some cause not arrived, we extract the following from the *Western Times*—Eds.]

ALTHOUGH the season has been so unfavourable to the growth of good Roses, yet there has rarely been a show of the beautiful blooms equal to that held on Northernhay, Exeter, on July 3rd, and never in its history has the Devon and Exeter Horticultural Society had so grand a collection. As is well known, rare and beautiful stove and greenhouse plants form the main feature of this Society's exhibitions, but the executive determined to this year have an exhibition composed entirely of cut flowers, and by issuing a liberal prize-list they obtained a most attractive show.

The main contest was in the first class, where collections of seventy-two single Roses, each of a distinct variety, competed for a prize of £20, presented by the Rev. J. B. M. Camm and Mr. R. N. G. Baker, and also for the honour of being at the top of the tree. The competition was restricted to nurserymen, and for the £20 prize there were seven exhibitors. After very minute and careful judging, lasting over an hour, the award was given in favour of Messrs. Paul & Son, of Cheshunt. Among their seventy-two they showed most perfect blooms of Centifolia roses and Duc de Rohan, as well as remarkably good specimens of William Saunders, the new Rose The Shah, Charles Lefebvre, Abel Grand, and a handsome dark seedling. There was hardly an indifferent Rose in the box. The same must be said of the collection shown by Mr. C. Turner, of Slough, who took the second prize, and who ran his more successful competitor very closely for the first honours. Perhaps as perfect a Rose as ever seen was his bloom of Le Havre: and among the others in the box particularly noticeable were Charles Rouillard, Général Jacqueminot, Dr. André, Camille Bernardin, Exposition de Brie, and Céline Forestier. For the third prize there was a smart competition between Mr. Cranston, of Hereford, and Mr. Prince, of Oxford, and eventually the Judges declared both to be equal. Mr. Cranston had some remarkably fine blooms, far beyond the ordinary size. Particularly noticeable were Général Jacqueminot, Marie Baumann, Elie Morel, and Maréchal Niel. The other boxes that did not come in for special mention were filled with blooms of such excellence that they would have undoubtedly taken high honours in any ordinary show.

In the forty-eight class, three trusses, Mr. Turner came to the front with six boxes of very fine blooms, including Sénateur Vaisse, Camille Bernardin, Prince Camille de Rohan, Lelia, and Baroness Rothschild. The second was Mr. Keynes, of Salisbury, whose blooms, though somewhat smaller, were very excellent, particularly Mdle. Bonnaire and Climbing Devonensis. Very good Roses indeed were Edouard Morren and Ferdinand de Lesseps, shown by Mr. Cant, of Colchester, who took the third prize. The best twenty-four, three trusses, were those shown by Mr. G. Prince, Oxford, and included very fine Marie Baumann, Xavier Olibo, and Duchesse de Moray. Mr. Turner, who came second, must have pressed Mr. Prince very hard for first. Mr. Keynes, third, had a superb truss of Charles Lefebvre. Those who had competed in the first three classes were not allowed to enter the twenty-four single-truss class, and the result was that only two competed. Mr. G. Cooling, of Bath, easily won the first prize; in the second, Messrs. Lucombe, Prince, and Co., Exeter.

In the competition for Tea-scented and Noisette Roses Mr. Cant's flowers were a long way ahead of the others; among them was a very good Madame Bravy. In the class for Roses of the last two seasons Mr. Turner exhibited a box of remarkably good blooms, including Princess Beatrice, a perfect dark velvet Beauty of Thame, Warrior, and M. J. Sisley; whilst the second box of Messrs. Paul's included The Shah, Wilson Saunders, and Cheannat Hybrid. For the prizes for twenty-four trusses of

any variety Mr. Prince was first with a magnificent lot of Marie Baumann, whilst the second prize went to the Baroness Rothschild owned by Mr. Turner. The other variety shown in this class was the Marquise de Castellane.

At the higher end of this tent Mr. Walters, of the Matford Nursery, Exeter, who has on various occasions carried off the leading prizes, showed several boxes, not for competition, of magnificent blooms. Most noticeable were four boxes of the Madame Rothschild, all of such good colour and such excellent bloom that they drew a very large share of attention. A very rich boxful was made up by his eighteen trusses of Alfred Colomb, and there were good specimens of Louis Van Houtte, Marie Baumann, Comtesse d'Oxford, Louise Peyronny, &c. Opposite him several boxes were shown by Messrs. Curtis, of Torquay, and included good specimens of Abbé Brametel, Camille Bernardin, and Eugène Appert. At the other end of the tent a vacant space had been filled by a small collection of handsome stove plants sent by Messrs. Lucombe & Pince.

The principal amateur Rose prize (forty-eight distinct varieties) was won by Rev. J. B. M. Camm, Charnmouth, who exhibited a very excellent collection, including remarkably good specimens of Alfred Colomb, Ferdinand de Lesseps, Duc de Rohan, and Exposition de Brie; whilst the collection of the second winner, Mr. J. W. Chard, Salisbury, was noticeable for the perfect flowers of Baroness Rothschild, John Hooper, and Hippolyte Flandrin. Mr. Beachey, of Kingskerswell, was third. In the twenty-four variety class, three trusses, a well-arranged collection of Mr. Chard's came first, but the remainder shown were indifferent, and no second prize was awarded. In the single-truss competition, twenty-four varieties, Rev. J. B. M. Camm was again first with a splendid box of Roses, and Mr. R. N. G. Baker, who was awarded second honours, was not far behind. Those who had competed in the former classes were not allowed to compete in the two following. Mr. C. A. W. Troyte was first in both, and he had very fine specimens of Duc de Rohan and Coupe d'Hébé.

The table decorations were deservedly a great attraction, each one bearing evidence of much taste in the selection of the flowers, and much trouble and care in the assortment. The main contest was that for the prizes of three groups of vases of flowers for the dinner table. All the competitors were ladies of the neighbourhood except Miss Harris, of Salisbury, and she won the handsome gold bracelet which was presented as a first prize by the Sheriff of Exeter, Mr. W. H. Ellis. From the centre of the middle stand a Palm leaf sprung up, and supporting it were choice flowers, intermixed with Ferns and Grasses; the two smaller vases on either side were similarly decked, and all three had a very light and elegant appearance. In the class for a single vase or other ornamental stand of flowers adapted for the dining or drawing-room, Miss Harris was again first—most of the flowers were wild. The second was that shown by Miss Wish; and for the third two were bracketed as equal. Miss Gray, of Heavitree, had very lightly and tastefully arranged the wild flowers which took first prize. A noticeable feature in one of the collections was a large lump of ice. The competition for the hand-bouquet prizes was small. Miss Veitch was first, Miss Harris second. On the whole the Exhibition was very attractive and successful; the attendance was large.

THE DROUGHT.

From near Lincoln we have the following:—

"From May 23rd to this date (July 13th), we have only had a little over half an inch of rain. On the 9th and 10th thermometer in the shade, 4 feet above ground, 89°. Burning sun and parching winds have scorched up the pastures. Not a Turnip is to be seen for miles. Here the foliage of Raspberries is positively burnt as if seared by a red-hot iron. Fruit of Strawberries, Currants, Raspberries, and Gooseberries absolutely (where exposed to the sun) broiled on the trees. Water scarce by dry brooks and low springs. No sign of rain yet. Barometer high, standing at 30.00, 136 feet above sea level.

NOTES AND GLEANINGS.

WE are informed that the Royal Horticultural Society, by way of ENCOURAGING A TASTE FOR HORTICULTURE AMONG THE YOUNG OF THE MASSES of the population, have caused a number of broeze medals to be struck, to be presented to successful exhibitors at the flower show of St. Botolph's, Bishopsgate, which has been so long successfully conducted by Rev. W. Rogers. This is indeed sowing the seed of horticulture in suitable soil; and who can tell how much the winning of these medals may affect the life of the winners? We can imagine in some future day an intelligent gardener holding a high position, telling as his boast that while a boy in the parish of St. Botolph's, among the smoke of London, he gained one of these medals, and that made him what he is.

— At the EVENING FETE OF THE ROYAL BOTANIC SOCIETY, held on the 8th inst., there was a large display of table decorations, bouquets, &c.; while Mr. William Paul, of Waltham Cross, furnished a beautifully-arranged Rose garden, in which some eight thousand trusses of cut Roses were employed. Mr. Wills, of Brompton, furnished the Society's decorations.

— A MEANS OF preventing the spread of the Vine pest, the PHYLLOXERA VASTATRIX, is said to have been found in the spreading of a layer of fine sand on the ground round the stems of the plants. The sand is said to be too loose for this insect to pass through, and the consequence is that it is intercepted in its passage from one plant to another. We are sorry to hear a report that this plague has found its way into Australia. The Vine-growing districts of our Australian colonies are becoming so important that we trust this report may be unfounded. At all events steps should be taken to prevent its introduction into any of our colonies: such a measure will be easier than its destruction, should it ever gain a footing in them.—(Nature.)

NOTES ON VILLA AND SUBURBAN GARDENING.

Cyclamen Culture.—In few plants are so many recommendations combined for the admirers of curious, gay, or fragrant flowers, as in the species and varieties of *Cyclamens*, yet anyone acquainted with their appearance might well be surprised to find them so much neglected. Flowering at various seasons, but particularly during the winter and spring, the greenhouse or even the windows of the amateur's sitting-room may be made attractive with such plants during all the spring months by growing a few of the early-flowering kinds.

In cultivating the different sorts of *Cyclamens*, it must be observed that some are much hardier than others, and may remain in the open border all the winter, while some are destroyed by a few degrees of frost; but it must also be remembered that all suffer alike from excess of moisture during winter; they are therefore best adapted for being grown in pots, as the summer and autumn-flowering kinds may then be plunged in their pots in the open borders through the flowering season, taken up again before winter, and placed in some dry situation until the following season. The *Cyclamen* is increased in two ways: first by cutting the largest tubers to pieces, which is a bad practice, as they are liable to rot during the first season after cutting, or while in a dormant state, unless the parts are kept very dry—a state very injurious to the early-flowering kinds; secondly by seeds, which should be sown when ripe, whether it be autumn or spring, in pans or pots, well drained, and filled with a mixture of equal parts of sandy loam and leaf mould, to which should be added a small portion of well-rotted manure. Then place the pots or pans in a cold frame or pit, to be kept close if sown in the spring; but if sown in the autumn they should be placed on the back shelf of the greenhouse, and kept rather dry during the winter, and the soil gradually watered more as the spring advances.

The autumn-sown plants will be fit for transplanting about the end of May or beginning of June following if properly treated, while those sown in the spring should not be removed from the seed pans before the following spring; they will by that time have formed tubers about the size of a hazel nut. Prepare for them some large pots or pans, well drain, and fill them with the same kind of soil as that in which the seeds were sown, and transplant the young tubers from the seed pans into these, placing them about 3 or 4 inches apart, according to their size. Return them to the cold pit or frame, and keep them close until they begin to grow; afterwards admit air freely by day, but keep the pit close at night till the beginning of July, when the pots should be plunged and the plants fully exposed both day and night, taking care, however, that the soil does not become sodden with too much rain, or become too dry. They will require no trouble except keeping free from weeds and slugs till the middle of September, when they should be potted singly into small 48-sized or 60 pots, according to the size of the roots, filled with the same kind of soil as that previously used.

In potting, the tubers should never be entirely covered with the soil, but about one-third left exposed. When potted they should be placed on the back shelf of the greenhouse or in a cold pit, where they can be kept dry and free from frost until they begin to grow. If they are early-flowering kinds a few may be placed in the window of the sitting-room, and but sparingly watered until they commence growing, when they should have a more liberal supply.

The plants will begin to bloom in the second season, and may be placed on the shelves of the greenhouse, or if they are hardy kinds which flower in summer or autumn, the pots may be plunged in the open border. When done flowering they should be returned to the cold pit or frame, where the lights must be kept on during the night in cold and wet weather, but let them have plenty of air at all times, observing as they cease growing that water should be withheld, and finally the roots

should be gradually dried. The tubers, when dry, should be allowed to remain in their pots, and not be shaken out as is frequently done, for when taken out of the soil they are almost sure to get too much dried before they are again potted; this is particularly the case with the early-flowering sorts.

The proper time of the year for resting the flowering roots entirely depends on the sorts. *C. persicum* will be at rest when *C. europæum* and *C. neapolitanum* will be in full bloom, and *vice versa*.

Cyclamens should be shaken from the soil and repotted directly the least sign of vegetation is observable, but the early spring-flowering kinds may be forced earlier into bloom by potting a few of the strongest roots sooner, and placing them in a warm dry place; they must not be excited too rapidly or watered freely, for if they are the leaves are almost sure to damp-off during the dull winter months, and particularly those of the beautiful *C. persicum* and its varieties.

Preserving Bulbs.—As far as my experience extends bulbs generally keep well in the ground, especially *Hyacinths*, which, when taken up, manifest a strong tendency to decay, although they rarely fail to appear again when left alone from season to season. *Tulips* and *Crocuses* are less subject to disease when dried and put away during the summer, but in the ground they never suffer at all. Why, then, is it considered indispensable to remove bulbs every year? Not for their safety, as every gardener knows, but for the maintenance of their good qualities. *Tulips* left in the ground only for one season will deteriorate in their bloom the second year. But it is worthy of inquiry why the flowers of bulbous plants lose their size and beauty unless the roots are taken up every year. I cannot pretend to answer the question, which requires a physiological acquaintance with the structure and functions of bulbs, and an extensive collection of facts, but will merely throw out a suggestion to which others may give a practical bearing. Is it not the division of the bulbs, the separation of the offsets, and the replanting into the new soil which keeps up the quality of the flowers? If so, and if being kept out of the ground some months has nothing to do with this effect, then the safest mode of treating bulbs will be to dig them up, divide, and replant at once. This theory, which has led to practical results in the case of the *Potato*, may be equally applicable to *Tulips* and *Hyacinths*. But supposing the system of harvesting is adopted, care must be taken that the foliage is fully decayed before the roots are raised, as this is the only certain proof that the bulb is at rest. Before this time the elaboration of juices is not complete, and the want of consolidation will expose its subject to premature decay. When the ground is wanted for other things, bulbs may be carefully removed with a spade to another spot without disturbing the soil about them, and they may mature themselves without being grudged time and opportunity for that important work; but at all events they must be ripe. When this state is ascertained let them be taken up and dried, first in the shade and afterwards in the sun. The collection may be stored away until planting time.

The *Ranunculus* cannot be left in the ground without injury to the roots and the future bloom, and its drying is an important part of the florist's duty. The object should be to secure a plumpness of the fangs of the root, and at the same time sufficient dryness to resist mildew. If *Ranunculuses* are exposed to the air too much when first taken up they shrivel and perish during the summer from atrophy. They must be dried very gradually, and then put away in drawers, each kind being enclosed in a little paper bag.—W. KEANE.

DOINGS OF THE LAST AND PRESENT WEEKS.

KITCHEN GARDEN.

PLANTED-OUT a fresh lot of *Celery*. The earliest has run to flower, as it invariably does to a large extent in our soil. The sure road to success, if that is attainable under all circumstances, is to keep the plants growing freely. A check of any sort will cause them to "bolt;" especially is this the case when the seeds are sown in pans or boxes, and the plants raised on hotbeds.

Asparagus is making good growth. Now is the time to apply liquid manure or surface-dressing of any rich stimulant—guano, salt, &c., and wash it in with clear water. Just in proportion as the plants are attended to now, and encouraged to make strong healthy growth, so much will be the quality of *Asparagus* improved for next spring. We very seldom can find time to place sticks to it; otherwise, if a stout stick be placed to each crown, and the stalks are tied to it, their being broken by the wind will be prevented. If the stalks are snapped at the base by the wind or in any other way long before they have completed their growth, the crowns must be weakened in proportion. The growers for the Paris market are as careful of their plants when making the summer growth as *Dahlia*-growers are with their *Dahlias*. Such wonderful heads as they send to market could not be produced if no more care were taken of the plants than we see in many English gardens.

Sea-kale.—We usually obtain from amongst that sown in spring a fair proportion of crowns for forcing during the suc-

ceeding winter. This year the plants are not making such free healthy growth as we have been accustomed to; we shall therefore have to trust more to the smaller plants that were planted out in the spring, and to the old roots that were forced. One cause of the backward state of many crops is the frosts that we had about the middle of June. Plants that were not quite cut down nevertheless suffered severely from the effects.

We have kept the hoe at work amongst Brussels Sprouts and all Greens. The rains a few weeks ago gave the weeds a start, but since then hot dry weather has been suitable for hoeing them down.

Last season was a bad one for small fruits being picked for preserving. It was barely possible to get them in a dry state, so that preserves kept badly. This year the fruit has been gathered in capital condition.

Mushroom House.—The samples of Mushrooms exhibited in Mr. Quilter's grounds at Birmingham went to show that they are not at their highest state of perfection at midsummer. If possible the Mushroom house should be a lean-to against a wall facing north; it will therefore be in the best position to secure a cool atmosphere inside at this season. If the house, as is usually the case, has a slated or tiled roof, some thatched hurdles, or thatch in some form, should be placed over the roof to keep the heat out. Shut up closely in the daytime, but the windows and doors ought to be thrown wide open at night. The house becomes in this way cool internally; and the object of shutting up closely in the early morning is to retain the cool air and prevent the heated air from getting inside, and the thicker the walls and roof are the better. Thick walls and roof are equally desirable for winter, as they then keep the cold out, and an equable temperature is thus obtained summer and winter.

FRUIT AND FORCING HOUSES.

Pinerias.—Pines are not likely to suffer from excessive heat, but the thermometer standing at 93° in the shade, as it registered at Loxford last Thursday, necessitated shading the houses and throwing the ventilators as wide open as possible. Pines that are swelling are very easily injured by excessive sun heat acting upon the fruit. During the present hot weather fire heat will not be necessary. As a rule, fire heat may be dispensed with from the middle of June until the end of August; of course, if a cold period should set in, the fire may be lighted and a little heat kept up, letting them go out again with a favourable change of the weather.

Orchard House.—Surface-dressing the trees is, perhaps, the most important work in connection with the summer management of Peach and Nectarine trees; the space in which the roots are confined is so small, that unless sufficient nourishment is washed down to them by these surface-dressings the fruit will be of small size and poor flavour. The value of the surface-dressing is apparent by the rapidity with which the roots run into it. Watering the trees with liquid manure has also been tried, using it weak and using it strong, but the trees do not seem to like it; the leaves become spotted and otherwise unhealthy.

GREENHOUSE AND CONSERVATORY.

At this time of the year, when Azaleas have been removed to a warm house to make their wood, and nearly all the hard-wooded plants are out of doors, and the conservatory is filled with Caladiums and other stove plants, it is necessary to shut up the house at night and syringe Camellias, Lapagerias, &c., finishing their growth. Our Camellias were in bad health a few years ago, owing to a change in the potting material. When the discussion on freshly-cut loam was in progress in this Journal, the Camellias at that time requiring potting, they were potted in the loam cut from our own fields. The plants made very good growth the first year, but declined afterwards, and it was soon evident that our loam did not answer for them; using it with three parts of turfy peat added they succeeded well.

Stage Pelargoniums have been removed out of doors to ripen their wood, and in a week or ten days the plants will be cut down; and of those that it is required to increase the stock cuttings will be put in, four or five in a 5-inch pot. The cuttings should be placed in an open airy position in the greenhouse or cold pit, but they must not on any account be subjected to a close moist atmosphere, otherwise many of them will die. *Spiraea palmata* is also a most distinct and useful greenhouse plant. It is very liable to be attacked by red spider, still this can easily be destroyed by syringing; but, indeed, it will not appear at all if the plants have been syringed when in growth. The time when this and other plants of the same character are neglected is after flowering. Anyone acquainted with plant-culture knows very well that from the time the flowers fade until the growths are ripened is the time to study the growths for next year. The leaves of *Spiraea* and those of all other herbaceous plants should be kept green and healthy as long as possible after flowering, and just in proportion as the prolongation of the leaves is insured, so much the stronger will be the growths the following season.

In many gardens Grapes are grown in the conservatory. The plants that would be injured by shade and heat may now be

placed out of doors; and the Grapes would be much improved if the house could be shut up early, say between four and five o'clock in the afternoon. If, on the other hand, a succession of flowering plants has to be kept up all the year round, it would be much better not to grow Vines in the house at all, as the treatment required by the former is not suitable to the Vines. Flowering plants require a cool airy atmosphere with ventilation night and day; Vines require light, and a warm, moderately moist atmosphere. Auriculas may also be classed in the greenhouse department, as they will not succeed if without a glass protection. Green fly has been troublesome, and the plants are not in a position where they can be fumigated, so that it has been necessary to brush the insects off. The plants are about starting into growth, and will be potted as soon as an opportunity offers.

FLOWER GARDEN.

On Friday and Saturday nights the longed-for rain came with a vengeance. A terrific thunderstorm burst immediately over us, and in an hour or two 2.15 inches of rain fell. On Saturday afternoon we had another storm, and 0.80 inch fell in little more than an hour. Where the ground was not covered with any mulching material it was much hardened with the heavy rain. The usefulness of decayed manure has not only been proved by the excessive drought this season, but also by the excessive rain. Pegged-down *Verbena*s, *Heliotrope*s, &c. Picked withered flowers from *Roses*, and hand-picked the weeds from flower beds. Tied *Phloxes* to the sticks: no flowers are more easily damaged than these if the spikes are allowed to hang about in a loose manner.—J. DOUGLAS.

PROVINCIAL HORTICULTURAL EXHIBITIONS.

[SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held. Although we cannot report them fully, we shall readily note anything especially excellent, and we wish for information on such specialities to be sent to us.]

JULY.	AUGUST.
Grange-on-Sands..... 17	Heywood..... 1, 2, and 3
Bury (Lancashire)..... 17 and 18	Southampton..... 1 and 3
Cleckheaton..... 18	Woburn..... 3
Bramley..... 20 and 21	Whitwick..... 4
Erewash Valley..... 21	Ilkeston and Shipley..... 5 and 6
Elford..... 22	Felton..... 6
Cambridgeshire..... 23	East Neuk of Fife..... 7
Liskeard..... 23	Aldborough and Borehambridge.. 7
Grantham..... 23 and 24	Horninglow..... 8
Tong and Dudley Hill..... 25	Clay Cross..... 11
Hales Owen and Hagley..... 28	Hartlepool..... 11
Buckingham..... 28	Melbourn..... 11
Ditchingham..... 28	Weston-super-Mare..... 11
Tewkesbury..... 28, 29, and 30	Ellon..... 12
Errol..... 29	Royal Hort. Society of Ireland... 13
Castle Donington (Derby)..... 29	Tannton Deane..... 13
Royal Oxfordshire..... 30	Malmesbury..... 13
Woolton..... 30	Birmingham..... 14 and 15
	Ryhope..... 18
	Keovil, Wilts..... 19
Earlsheaton and Chickerley..... 1	Eckington..... 19

TRADE CATALOGUE RECEIVED.

Ant. Roozen & Son, Overveen, near Haarlem, Holland.—*Catalogue of Hyacinths, Tulips, Crocus, and other Dutch and Cape Bulbs, &c.*

TO CORRESPONDENTS.

* * It is particularly requested that no communication be addressed *privately* to either of the Editors of this Journal. All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only.

We also request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

BOOKS (*A. A. M.*).—No periodical is published relating only to garden design. "Flower Garden Plans," published at our office, might suit your American friend. You can have it free by post if you enclose 5s. 2d. with your address.

SEEDLING STRAWBERRY (*G. C. S.*).—The berries are medium-sized, very high-coloured, and flavoured like Keen's Seedling. If it has any superior merit it must be in being a profuse bearer, and of this we have no information.

CANDLE PLANT (*Brisbane*).—Your specimen is the species referred to. Thanks for your obliging offer, but plants have been procured.

BRITISH WILD FLOWERS (*J. P. K.*).—Six volumes are completed, price 21s. each. The work is completing in monthly numbers at 1s. each.

GROUND VINERY.—(Mrs. I. B. A.).—If you enclose thirty postage stamps with your address, and order "The Vine Manual," you will receive it post free, and it contains all the information you seek for.

HEAP OF EARTH (F. J.).—Of no use except to improve the staple of heavy soil.

DESTROYING INSECTS BY HOT WATER (J. K.).—Immersing plants in heated water to destroy insects is an old practice, and yet is but little adopted, though many blight and insect-destroying compositions owe much of their efficacy to the heat at which they are recommended to be applied, and at the same time it must be said a great deal of the injury resulting from such applications is due to the high temperature of the solutions. It is difficult to say with safety the temperature of the liquid in which plants should be immersed for the destruction of insects. Green aphids is destroyed by a temperature of 120°, and they require to be immersed for two or three minutes, a time which acts injuriously on the tissues of softwooded plants, and also hardwooded plants in growth, though it does no injury when the growth is complete and the wood firm. The scale insects may be destroyed by syringing the plants, laid on their sides, with water at a temperature of 140°; but it will not do to immerse the plants even for a minute in water at so high a temperature, as it injures their soft parts, and the leaves fall from the ripened growths. It is a subject that requires great caution, the state of the plant being well considered. At best there is great danger of injury or loss of plants.

BRUGMANSIA ALBA NOT FLOWERING (A. W.).—Your plant certainly requires a pot rather than a tub, its roots not being in a healthy state. We should at once have the plant removed and placed in a pot—one that will hold the roots after most of the old soil has been removed, repotting in entirely fresh compost, providing good drainage, watering carefully, shading from bright sun, and sprinkling overhead two or three times with water until it has recovered from the potting. Then expose it more fully to air and light, and shift into a larger pot when the others fall of roots, and towards autumn reduce the supply of moisture, and water so as to insure the ripening of the wood. In winter the plant should be kept dry, but not so much so as to cause the wood to shrivel, pruning in spring to sound firm wood, and leaving three or four eyes of last year's wood. After it has made shoots an inch or two long place it in the tub, and it is likely you will have a good growth and bloom.

CONSTRUCTING AND HEATING PIT (T. D.).—As your sashes are 8 feet long they will not allow of your having a pit 8 feet wide. The lights should have a fall of 1 foot in 3 feet of width. Little else will do to insure the run-off of rain water. Your back wall should be 4 feet 6 inches, and the front 2 feet high; but if you have the tank in front of the pit it will be necessary to take the wall a foot higher, and that foot we should have 4½ inches thick, and plastered with cement, which will give you a 4½-inch wall as strong as the 3-inch, and afford room for plants; in fact, form a ledge 4 inches wide. A wood tank would answer, but will be apt to wear out. It will need to be 6 inches deep to allow for the swell of the water, and should be 8 inches wide, with 1½-inch division up the middle, and a waterway at the farther end from the boiler of the same width as the others. In the length you name the tank should have a fall to the boiler of about an inch, and the return water will have that much of fall. If the tank be a few inches above the top of the boiler it is sufficient. Eighteen to 20 inches would be a good and suitable distance to leave between the floor and the glass if low-growing plants are cultivated, or it would answer for Cucumbers or Melons, but we should for these prefer 24 inches. The tank will do covered with slates, and the floor of rough boards, but you will only in this case have bottom heat. For top heat we should have holes in the wood that will allow of the heat from the chamber beneath rising through funnels of wood; or 3-inch draught pipes will do, with a plug to close them or let out the heat as required. If you have not soil on the boards it is likely that sufficient heat will rise through the interstices of the boards to give you as much top heat as you will require. As you have so much wood we fear it would not be safe to have the furnace inside the pit with the door outside, but you may, if you can with safety, have it inside, and so economise a considerable amount of heat.

CUTTING MELONS (S. S. A. K.).—The Melons should be cut as soon as they begin ripening, which may be ascertained by one or all of the following symptoms: The fruit changing colour, its slightly cracking or showing indications of parting from the footstalk, and by its aroma. As soon as the latter commences to be given off the fruit should be cut without delay, for it is the best general evidence of a Melon being fit to eat. The fruit should be kept in a dry room; and when coloured throughout—every part of its exterior alike—and before it begins to show spots of decay it is at its best, and should be eaten at once.

GARDEN INUNDATED BY SALT WATER (East Anglia).—We presume you wish to know what will succeed in your garden ground, the grass land having recovered. The garden ground would grow the various kind of greens, as Cauliflowers, Broccoli, Borecole, Savoy, &c., and Turnips, and by next spring will be available for most kinds of vegetable crops and fruit trees, according to the amount of moisture falling in the autumn. It would be useless, however, to replant fruit trees unless you can prevent by an embankment a recurrence of the disaster. If the grass was destroyed we should have the pasture broken up, and brought into good tilth by September, then sow it with Grass seeds. A suitable mixture per acre would be, if the land is wet:—*Poa fluviatilis*, 4 lbs.; *Alpecurus pratensis*, 2 lbs.; *Poa trivialis*, 4 lbs.; *Agrostis stolonifera*, 4 lbs.; *Festuca loliaeae*, 4 lbs.; *F. pratensis*, 4 lbs.; *Phleum pratense*, 2 lbs.; *Lolium perenne* (Pacey's Perennial Rye Grass), 12 lbs. We are unable to say that the above mixture would suit your soil, as it may not be wet; but if drained and otherwise not subject to be overflooded, the land would be suitable for the better kinds of Grasses and Clovers.

STRAWBERRIES FOR LIGHT SOIL (C. T. S.).—Sir Joseph Paxton, though not so early as some, is very good for early use, President for second early, and Dr. Hogg to succeed it. The last succeeds well on a light soil if the ground, after being manured and deeply dug, has the surface made firm. If you wish for a later kind than Dr. Hogg, Frogmore Late Pine will suit. If you can obtain well-rooted runners, July is the best time to plant; but we have planted early in August with very good results.

RAISING HYACINTHS FROM SEED (W. S.).—The seeds may be sown in September in light sandy soil, and covered to the depth of half an inch, sowing on a warm sheltered border, and protecting in winter from frost; or you may sow in a pan or box, and place in a greenhouse, keeping moist, but we prefer outside. The following year, when the leaves die down, cover the bed with an inch of soil, and the year following in September the bulbs may be taken up, and planted singly in rows 3 inches apart, and 6 inches from each

other in the rows, planting 2 inches deep, and covering with an inch of leaf soil on the approach of frost. The bulbs may remain in this bed with the annual mulching until they flower, or they may be taken up annually and replanted. They bloom in from three to five years after sowing.

ALYSIMUM SAXATILE COMPACTUM FOR SPRING-FLOWERING (Spring Garden).—If this was sown early in June, the plants should now be pricked-out in rich light soil 3 inches apart in rows 6 inches from each other, shading them until established. If planted out in autumn they will flower next spring, but not so well as plants that are a year older. We prefer them two years old. Mr. Luckhart, you would see last week, had more notes on plants for spring gardening, and will no doubt commend the plants you name—viz., the above as the best yellow, and Iberis sempervirens as the best white.

WEIGHT OF PEACHES (B. A.).—We have known a Late Admirable weigh 13 ozs., and a Salway 19 ozs.

CALADIUMS, &c. (W. H. D.).—The leaves of the Caladiums from the Corcovado Mountains are very novel, especially that with the white and crimson ribs. The *Scolopendrium vulgare* variety is the most deeply crisped of the variety digitatum we ever saw. We cannot identify the shrubs from the leaves only.

GRAPES DISEASED (Nero).—They are both shranked and spotted. Water the roots liberally twice a week with tepid very weak manure water. The flowers were smothered by the post-office panaches. You need not send Bagonias, for we cannot name florists' varieties.

VINE LEAVES SPOTTED (A Subscriber).—The spots on the leaves and the seven Grapes tell that the roots of the Vine are too dry. Water liberally two or three times a week.

PINKS, CARNATIONS, AND PICOTEES DEFINED (M.).—Carnation marks are in flakes, or ribbons, of colour, from centre to edge, and through the edge; and the more dense these ribbons, or stripes, or flakes of colour are, and the more distinct the white ground between them, the better, and the more equally divided as to quantity they are the better. As the petals are broader as they approach the outer edge, so also are, or should be, both the colour and the white. They are divided into classes, called Bizarres and Flakes; the former having two colours of stripe beside the white, the latter only one colour. These Bizarres and Flakes are subdivided, there being purple Flakes, rose Flakes, and scarlet Flakes; and among the Bizarres, scarlet Bizarres, which have scarlet stripes, and a second colour, which is considered better for a rich contrast of black, and approaches to it; then purple Bizarres, which have purple stripes, with a light pink, or rose, or some other colour, forming a contrast. The *Picotee* has the colour only on the edge, and broad or narrow, as the case may be, but ramifying towards the centre; any mark or spurt of colour that does not touch the edge is a blemish. Some, therefore, are only marked round the edge very distinctly, but as narrow as possible; others have a sort of feathering, narrow or deep, as the case may be, but feathering inwards from the edge; the outer edge solid, and the inner edge rough or feathery. The *Pink* is distinct from both these. The lacing, as it were, of a *Pink* is rough outside and inside, with a portion of white outside the lacing, as if a band of colour had been laid on; besides this, there is colour at the base of every petal, and, perhaps, one-third of the distance along the petal, so that it forms an eye, or centre, of colour, which is peculiar to itself, and which never occurs in the *Carnation* or *Picotee*. A *Pink* without its lacing all round each petal, and its narrow strip of white outside it, would be worthless as a show-flower. The more distinct this lacing is the better; it should look like an even piece of embroidery, just fairly within the outer edge of the white.

INSECTS (West Cumberland).—It is impossible to determine by such small shrivelled bits of plants (without any insect) what the species of larva may have been which is said to attack indiscriminately Onions, Cauliflowers, Broccoli, and all other kitchen garden plants.—I. O. W.

NAME OF FRUIT (An Old Subscriber).—There is no doubt it is May Duke Cherry, but this dry season has prevented the swelling of the fruit to its usual size.

NAMES OF PLANTS (H. M.).—*Hypericum calycinum*, Large-calyxed St. John's Wort. It is a native plant and popularly known as Aaron's Beard, referring to its numerous stamens. (*J. P.*).—1, *Chrysanthemum coronarium*; 2, send a specimen in flower. (*West Cumberland*).—1, *Crataegus rubra*; 2, *Tradescantia virginica*; 3, *Campanula* sp. (*T. P.*).—1, *Cyrtanthus Pohlmann* var. *Justicia carnea*, Lindl.; 2, *Sedum redexum*; 3, *Lilium Martagon*. (*T. M.*).—*Valeriana pyreocica*. (*X. Y. Z.*).—1, *Populus grandidentata*; 2, *Alnus glutinosa laciniata*.

POULTRY, BEE, AND PIGEON CHRONICLE.

THE POULTRY-KEEPER.—No. 11.

NOTES ON LA FLÈCHE FOWLS.

THE La Flèche of a fine strain, is peculiar to Maine. Its type is always kept pure, especially in the environs of La Flèche, where they practise the mode of fattening that suits them. Mr. Létrône, to whom I owe some of the information, thinks that the origin of the La Flèche is unknown. Their reputation, he says, may be dated from the fifteenth century according to some old historians. I think, however, they have a more ancient origin. It was in Mans that they had these beautiful fowls first, then at Mûzeray, and then at La Flèche. Also they are known under different names. Poultry-rearing has ceased for a long time in Mans, it decreases at Mûzeray, and is not well kept-up in La Flèche and the surrounding places.

The La Flèche fowls are easy to fatten, are very hardy, and rarely ill. They acclimatise themselves in whatever country they are sent to, and the purity and superiority are easily preserved, provided promiscuousness is avoided, and fresh blood is introduced every now and then. They habituate themselves to any food after they have attained a certain age, but they ought at first to be fed with food something like that they have in their native country. Brought-up at liberty they do not roam far, particularly if provided with grass.

The variety of La Flèche may be included among the three or four of the most beautiful of the French varieties. Though its plumage is uniformly black, it is very rich on account of the beautiful violet and green iridescence. Its comb and gills are of a deep red, which with its large transparent white ear, form with the plumage a contrast as remarkable as that of the Spanish variety. The fineness, delicacy, and superior flavour of the flesh are very perceptible even when unfattened, and most conspicuously developed when fattened, as is demonstrated in the pullets and cockerels submitted to fattening at seven or eight months old. These last are put aside when required, that they may have no intercourse with the hens, and that is why they are called virgin cocks. The hens are just as easy to fatten before they begin to lay. Most fowls require from nine to eleven months to arrive at a state of perfection. But they derive from this a compensating advantage, for the chickens being very long in becoming adults, and not following the hen till very late, continue to grow in the winter, and come in during the spring at the time when good fowls are very rare. Never cross this variety, for it would deteriorate this property.

There is a variety exactly similar in form and qualities to the principal race excepting the comb, which is large, of a single lobe, nearly round, flattened at the top, and forming a point behind, granulated in the upper part. It is generally those with the granulated comb that are known under the name of the *Mais Fowls*. These two varieties have also certain similarities. They possess the same qualities, are equally easy to fatten, and the birds give, in proportion to the weight they attain, a good profit to the fatterer, because they are more early than the large varieties.

The usual food for the La Flèche consists in giving them three times a-day barley still in the husk. The keepers ration them, because they are very voracious, and at certain times fatten too quickly. They give to chickens and to the mother after the particular food of the first few days, a soft mixture of meal during the six first months. The older they are the more you may increase their rations of bran, and diminish that of meal. Grass they should always have abundantly.

BLACK BANTAMS.

I AM pleased to see in the Journal that Mr. Cambridge has made a stand against entering his Black Bantams in any class that comprehends more than Black and White; for I contend in a very mixed class the quality is not the test, but the idiosyncrasies of the judge decide the matter; for if he is a fancier of Sebrights, Japanese, or any other particular kind, it is natural to suppose he will more readily see their perfections, and, no doubt, will better understand their points; and having a partiality for that sort he would in a nice point be much inclined to let the balance weigh in their favour.

There is another point that requires a little rectifying—that is, in many schedules a certain amount is offered in some of the classes, while often less than half the amount is offered for Bantams, although the entrance-fee is the same. Why it is so I cannot comprehend, as on the average more Bantams are exhibited than fowls of any other class, and as a rule pay a committee better. I have heard some people say the reason is that they are not so important or useful a class of fowls; but if it comes to that, I should like to ask, Which of the show birds are really useful? For what person would be so idiotic as to give from ten to twenty guineas for a fowl to put in the pot; or to give from half a guinea to a guinea and a half per dozen for eggs for breakfast, when he could get just as good fowls for about 3s. each, and as good eggs at 1d. each? Therefore I contend that all show birds are for fancy, and what can it matter whether it is a pigmy or a giant that is the particular fancy? And although I do not exhibit largely, I have made up my mind not to enter at any show where the prizes are less for Bantams than for other breeds and the entry-fee is the same.—A BANTAM FANCIER.

PRESERVING EGGS.

VARIOUS correspondents have inquired as to the best mode of preserving eggs, and as no one has given the plan which I find very good, I send it. Take a three-quarter-inch board, say a foot broad and 3 feet long. With a brace bit of 1½ inch bore fourteen sets of holes; you will be able to get five in a row. Then nail together four strips of deal of the same thickness as the piece before mentioned, and 2 inches deep, with which form a four-sided open frame of the same dimensions as the first-mentioned board, and 2 inches deep. Nail the perforated board on the frame, and round the edges add a bead of half an inch deep. You will then have an egg-board which will hold seventy eggs, and with such boards eggs are kept in my house perfectly good from August to the following March. Care must be taken that the eggs have always been kept dry.

The rationale of this is that when an egg is laid on its side, the yolk, being of slightly greater gravity than the white, gradually sinks to the side, and then soon becomes unfit for use;

whereas in a frame such as I have described, and the egg being put the small end down, the yolk floats in the centre of the white, and is kept from any contact with the shell. If the eggs are small, say such as are laid by the Hamburgs, bore 1½-inch holes.—T. G.

MANCHESTER POULTRY AND PIGEON SHOW.

THIS Show was the first of the kind that has ever been held in the Royal Pomona Gardens, Manchester; and although in numbers not large, the quality of the generality of the classes was highly commendable. The arrangements were good, the birds being placed in single tier, and the light was such as no one could find fault with. The heat of the day was excessive, and those fowls that stood in the direct rays of the sun showed symptoms of much exhaustion. The feeding and watering were attended to most sedulously—nothing was left undone on that score. One of the most necessary precautions, however, seemed to have been altogether forgotten—viz., that anyone so inclined could not follow closely on the judges during the time they were officially engaged, and crowd around them, "to see what was going on." True, a few zealous and experienced exhibitors did by a little perseverance keep back for a time the most intrusive, but upon the least laxity being shown numbers surrounded both the judges by scores, and proved a considerable hindrance both to expedition and also in making a minute examination of the birds to be judged. An official should always be placed at the end of the avenue to prevent persons from going where the judges are engaged. The amount of space available for a poultry show at the Royal Pomona Gardens is surprising, and with care and attention future shows held there might be of the highest character.

Very few of the birds shown were otherwise than first-class, the general moulting being the only drawback. *Dorkings* were good as a whole, but mostly out of condition, and the long spell of dry weather only increased the numbers of "bumble-footed" ones. Some fine chickens not sufficiently matured to compete with old fowls were exhibited in capital feather. In the class for any other variety of *Dorkings* a pen of truly beautiful Silver-Greys stood first, but the remainder were not by any means faultless. In *Boff Cochins* Mr. Crabtree's pen (of late so successful) were again in the front rank. Somewhat strangely, almost every pen contained a good and an inferior specimen, as two really first-class ones shown together could not be found, however carefully sought for. The class of *Partridge Cochins* was such a one as at this time of year is rarely to be witnessed. Mr. Tudman, the owner of the first and the third-prize pens, being himself present, was congratulated by many fanciers on his successes with home-bred specimens that are a credit to his perseverance. Mr. Stretch also showed a marvellously nice pair, which were second, and these were also in very superior condition. From such an entry Mr. Crabtree's grand *Partridge* cock shown with a very meagre hen was quite out of the hunt, but with a partner of equal merit its success would have been a certainty. Light *Brahmas* might have been a more taking class. The first-prize, Mr. Dean's "Young Hero," will be improved when he has obtained his new suit; and the hen was certainly not equal to some at times sent from the same yard. In *Dark Brahmas* there was a general display of right good ones. In this class a marvellously nice pen of chickens well grown—the cock one of the truest feathered ever seen so early in the season, wings, breast, back, and hackles the very perfection of colour, and with a framework that bids fair to become a giant—was the object of continuous scrutiny, the general opinion being "he will stand in the way of a good many in prizetaking," and it was the envy of not a few *Brahma* fanciers. Mr. Beldon exhibited some *Spanish* of high quality and in good feather. A few very good single birds might have been easily selected from the pairs shown, but no other pen than the first was well matched or in show condition. *Hamburgs* throughout were really good, and it will be seen that great successes have been achieved in these varieties by a new comer. The Variety class might easily and justly have received double the number of prizes that were appointed by the prize schedule; and in the Variety Duck class the same applies even more forcibly. The Show was well attended throughout both days.

DORKINGS.—Coloured.—1, J. Scott. 2, J. Walker. 3, Mrs. T. W. L. Hind. *he*, G. Fox; *she*, H. Stott; Mrs. Arkwright; T. C. Burnell. *White and Silver*.—1, Mrs. H. Barcay. 2, H. Feast. 3, L. Wren.

COCHINS.—*Cinnamon and Buff*.—1, W. H. Crabtree. 2, R. P. Percival. 3, Mrs. T. W. L. Hind. *he*, J. Royle; G. Fletcher. *Partridge*.—1 and 3, E. Truman. 2, T. Stretch. *he*, T. Ashton; W. H. Crabtree; E. Truman; M. M. Cashmore. *White*.—1, R. S. Woodgate. 2, H. Beldon. 3, W. Whitworth, jun.

BRAHMA POULTRY.—*Light*.—1, T. A. Dean. 2, R. P. Percival. 3, J. Mitchell. *Dark*.—1, R. P. Percival. 2, Horace Langwood. 3, J. Watts. *he*, F. E. Ansah; W. H. Crabtree. *c*, R. P. Percival; W. Whaley.

SPANISH.—1, H. Beldon. 2, J. Leeming. 3, Farness & Sadali. *he*, J. Thresh. **GAMES.**—*Black Red*.—1, J. K. Fletcher. 2, W. Barker. 3, T. Tomlinson.

Brown.—1, J. W. Brindley. 2, J. K. Fletcher. 3, H. M. Jahan. *Any other variety*.—1, J. A. & H. H. Farley. 2, J. Mason. 3, W. Barker.

HAMBURG.—*Golden-pencilled*.—1, J. Long. 2, H. Beldon. 3, W. Speakman. *Silver-pencilled*.—1, J. Long. 2, H. Beldon. 3, H. Feast. *Golden-spangled*.—1, P. Henson. 2, N. Marlor. 3, G. & J. Duckworth. *c*, J. Hall. *Silver-spangled*.—1, H. Beldon. 2, Ashton & Coath. 3, J. Long. *he*, J. Fielding. *Black*.—1, J. Long. 2, N. Marlor. 3, H. Royle. *he*, H. Beldon.

FRENCH—Any variety.—1, R. B. Wood. 2, E. Walton. 3, W. H. Crabtree. 4, G. W. Hubbard. 5, W. H. Crabtree; H. Feast.

ANY OTHER VARIETY—1 and 2, H. Bolton (Silver and Golden Polands). 3, Rev. A. G. Brooks (Majors). 4, J. E. Walton (Watts Majors). T. Aspley (Black Cochins). J. Walker; J. Royle (Polands); H. Feast; A. W. Crichton (Polish). 5, A. & W. H. Silvester (Gold Polands).

BANTAMS—Game—Reds.—1, W. E. Entwistle. 2, Annie G. Hall. 3, G. Barnes. 4, J. Anderson. Any variety Red.—1, J. R. Fletcher. 2, H. Hall. 3, R. J. H. Harley. 4, E. Walton. Any variety not Game.—1 and 2, M. Leuo. 3, R. H. Aspley. 4, W. Moore. H. B. Smith.

DUCKS—Aylesbury.—1, J. Walker. 2 and 3, I. K. Fowler. Rouen.—1, W. Evans. 2, G. Fox. 3, J. K. Fowler. Any other variety.—1 and 2, M. Leuo (Whistlers). 3, W. Binns (Chilian Pintails). 4, H. B. Smith (Whistlers). Chilian Pintails, and Bahamas; J. Walker; W. Binns (Kassarkas).

GESEK—1, Mrs. H. J. Bailey. 2, I. Walker. 3, J. K. Fowler.

TURKEYS—1, J. Walker. 2, M. Kew. 3, Mrs. H. J. Bailey.

SPANISH—Cass.—1, J. Pitt (Black Spanish). 2, A. Bamford (Buff Cochinchina). 3, T. C. Barnett (Dorking Hen)—1 and 2, F. Barnes & Sadall (Black Spanish). 3, A. Bamford (Brahma). 4, R. P. Percival (Dark and Light Brahma); T. Aspley (Buff Cochins); E. Kendrick, jun (Dark Brahma); T. F. Asndell (Dark Brahma).

PIGEONS.

POUTERS—White.—1, D. M. Garalde. 2 and 3, No competition. Black or Blue.—1, H. S. Salisbury. 2 and 3, No competition. Any other colour.—1, W. J. Warhurst.

CARRIERS—1, H. Yardley. 2 and 3, No competition. Young.—1, R. White.

TRUMPETERS—Short faced.—1 and 2, J. Gardner. 3, H. Yardley. Any other variety.—1, J. Watts. 2, A. & W. H. Silvester. 3, No competition.

OWLS—Foreign.—1, J. R. Fletcher. 2, A. Handford. 3, H. Yardley. English.—1, W. Binns. 2, J. Watts. 3, C. E. Brooke.

TURBOTS—1, H. Yardley. 2, T. W. Fekersley. 3, J. Gardner. 4, T. Foster. **DRAGONS**—Blue or Silver.—1, H. Yardley. 2, E. H. Preston. 3, No competition. Any other colour.—1, H. Yardley. 3, E. H. Preston. 3, W. Binns.

JACOBS—1, H. Yardley. 2, H. S. Salisbury. 3, No competition.

FANTAILS—1 and 3, J. E. Loversidge. 2, Q. Blum. 4, H. C. Bowman; Rev. A. G. Brooke.

ANTWERPS—1, W. Justice. 2, R. Brierley. 3, A. Bingham. 4, H. Yardley; J. Wright; J. Gardner; A. Bingham.

ANY OTHER VARIETY—1, A. & W. H. Silvester. 2, H. Yardley. 3, Rev. A. G. Brooke (Barnes). 4, F. Appleton (Archangels and Black Magpies); T. Foster (Swallows); Rev. A. G. Brooke (Nuns).

ROLLING CLASS—1 and 2, R. Watts (Black Barbs and Carriers). 3, R. E. Horsfall (Black-mottled Trumpeters). 4, T. Foster (Turbits).

Mr. Thomas Chaloner, of Workop, judged all classes of Game fowls; and Mr. Edward Hewitt, of Birmingham, the remaining varieties.

ENGLISH OWLS AT THE CLIFTON SHOW.

"F. B." MAKES some remarks upon these birds, and adds that "WILTSHIRE RECTOR" no doubt recollects his remarks on the English Owls at the Bristol Show, vide our Journal." I turn to the number of THE JOURNAL OF HORTICULTURE for January 29th, 1874, and read in my account of the Bristol Show, "The English Owls were very foreign-like," meaning that is just what they should not be. It is fast coming to this, that the English Owls shown are half-bred foreign ones, as the professed unpeppered Canaries are more than half peppered. If this go on, the English Owl Pigeon, a fine, strong, somewhat large, and good flying Pigeon, that has been a fancy bird in England for the last hundred years, will cease to exist. Keep the little, newly arrived, *petite*, pretty gentry to themselves; and I sincerely hope that no judge will give a single prize to a half-and-half Owl, while every judge will look favourably upon an honest powder-blue English Owl, one of the nicest of all Toy Pigeons.

I would further observe that I was not at the Royal Cornwall Show, and am not responsible for the opinions of others. "F. B." also alludes to the Trumpeters at Clifton last June. A contemporary, I see, says of them they were "very poor." I was not at Plymouth or at Exeter, so I could not have written about them.—WILTSHIRE RECTOR.

WINTERTON POULTRY SHOW.

THIS Show was held on the 7th inst., but in the face of large exhibitors the entries were not good, although we hope the Committee will not be discouraged, as a little revision and augmentation of the list will bring the desired numbers. The arrangements and management seem to have given general satisfaction, except that the pens for poultry were far too small. Of *Dorkings* there were but three entries, the highly commended pen being five chickens. The first in *Cochins* were a really good pair of Bufts. *Brahmas* were good, the Sheffield pen running hard for the cup; the *French* also coming up well. *Crève-Cœurs* took both the prizes. In Black Red Game the first was a fair pen; the best cock was that in the second-prize pen. In the next class Brown Reds won both prizes. *Hamburghs* were mixed classes; in the Spangled Gold were first and Silvers second; and in Pencilled Golds won both prizes, the first being of fair quality. Of *Bantams* there were only nine pens in three classes; the first-prize pen in Class 12 containing one of the best hens we have ever seen. A well-known pen of *Spanish* were rightly awarded the cup for the best pen in the Show. *Polands* were Gold first and Silvers second, the first a very good pen.

Pigeons were a poor show if we except the first in Fantails. A pair of Nuns received a first prize, only one bird having a hood, which we consider stretching a point too far.

Rabbits.—Of these there were but three entries in two classes.

Dorkings—1, G. Bray, Winterton. 2, T. Sawyer, Winterton. 3, W. G. Waters, Eisham.

Cochin-Chinas.—1, W. Harvey, Sheffield. 2, W. Heseltine, Beamoncote.

Brahmas.—1, W. Whiteley, Sheffield. 2, W. G. Waters. 3, J. F. Smith, Sheffield.

FRENCH—Any variety.—1, Mrs. Wicks, Appleby. 2, W. Harvey, the Mrs. Cross, Appleby Vicarage. 3, Rev. J. R. Lane, Roxby. 4, G. W. Hubbard, Gooly, Hild.

GAME—Black-breasted Red.—1, J. B. Henworth, Hattfield, Doncaster. 2, O. Barnsdale, Newark. 3, W. Heseltine. Any other variety.—1, A. Canty, Barton-on-Humber. 2, J. B. Henworth.

HAMBOURG—Gold or Silver-spangled.—1, Tock & Furness, Crosby. 2, W. G. Waters. 3, G. or Silver-spangled.—1, Mrs. E. Newbitt, Epworth. 2, W. Darley, jun, Brigg.

BANTAMS—Game.—1, Mrs. E. Newbitt. 2, W. Heseltine. Hen.—1, Wells and Taylor. 2, and 3, A. Canty. 4, Mrs. Wicks. Any other variety.—1, W. Darley, jun. 2, A. Canty.

SPANISH—Cup and 1, Mrs. E. Newbitt. 2, J. Gillyard, Winterton.

POLANDS—1, W. Harvey. 2, W. G. Waters.

POULTEERS.—1, W. Sawyer, Winterton. 2, W. Blanshard.

DUCKS.—Any variety.—1, W. Heseltine. 2, W. Cross.

PIGEONS.

ANTWERPS.—1, Wells & Taylor.

FANTAILS.—1, J. F. Loversidge, Newark. 2, A. Canty. 3, Mrs. M. W. Clarke, Winterton. 4, J. Sadler, Winterton.

NUNS.—1, Mrs. M. W. Clarke.

BARBS.—1, S. Stubbins, Winterton. 2, A. Canty.

JACOBS.—1, A. Canty. 2, Mrs. M. W. Clarke.

TRUMPETERS.—1, W. H. Atkinson, Winterton.

BEST PEN OF PIGEONS IN THE SHOW.—1 and 2, A. Canty.

RABBITS.—Any variety.—Duck.—1, A. Canty. Doe.—1, A. Canty. 2, C. Bray, Winterton.

The Judges were Mr. F. Sales, Crowle; and Mr. Wheeler, Carlton, Nottingham.

CHEAP RABBITRY.

DR. POND, of Cassadaga, N. Y., gives the following directions in the *Chautauqua Farmer* for constructing Rabbit hutches so cheaply as to be within the means of any boy:—

Rabbits have been and are kept in common dry-goods boxes, with the cover fastened on by leather hinges, and a few holes bored around the side for ventilation. In this primitive manner most excellent success has been attained. Of course in such quarters cleanliness is indispensable. The box must be cleaned out and fresh litter given every day, or at least every other day.

Another simple arrangement is a shoe box. This is usually about 3 to 3½ feet long, 15 to 18 inches deep, and about 12 inches broad. This is placed on the side on supports, or fastened against the wall, with the door or lid hung from the upper side, thus lifting up. The door may be of wire-cloth, lath, or simply the lid of the box with a few holes bored in it, and hung by iron hinges or strips of leather. One end of this box may be set off by a partition for a nesting-room; this need not be over 9 inches wide. On this point I differ with most other writers on this subject; they advocate a nesting-box of 12 to 15 inches in width, and the depth of the hutch, whether 1 or 2 feet from front to rear. My experience is, with these large nesting-boxes the young Rabbits, as soon as they are able to crawl, will often get out of the nest and get chilled, and are unable to get back again. Having lost a number of litters in this way, I have reduced the size of these boxes to 10 inches diameter for Lops and Belgians, and to 9 inches for the smaller varieties, and also when the hutch is deep, I place a semi-partition, about 2½ or 3 inches high, across the nesting department, about 1 foot from the front of the hutch—entrance to the apartment by the door being by an opening in the back part of a hutch through a hole 6 inches wide and 8 inches high. Hutches of this kind may be placed in tiers two or three or four high.

Another and still simpler mode of keeping Rabbits is in an unoccupied room in any outbuilding. This can be divided into apartments by boards, the partition to be carried up to a height of 3½ or 4 feet. The apartments may be of such size and shape as suit the fancy of the amateur. In one corner of the pen put a box, say about 10 by 15 inches, with a round hole 6 or 7 inches in diameter cut in one end; hinge the cover and fasten it down by a simple hook or button, so as to afford better opportunities to examine the young. Care must be taken to exclude cats and rats from the room. For young stock I especially recommend keeping them in this last manner. My pens are four in number, about 5 feet wide by 10 feet long, and in one of these I have had as many as thirty-five Rabbits at one time, varying from six weeks to four months old. They have ample room to exercise, and seem to thrive much better than when in more confined quarters, even in small numbers.

SUGGESTIONS FOR SETTLING THE POUTER DISPUTE.

THE present seems to me particularly the important time for fanciers to agree upon the subject of the Pouter, inasmuch as the most elaborate work on fancy Pigeons is being published, but the portion relating to the Pouter is not yet issued. Many letters have appeared on the subject, particularly from the great Scotch breeders and exhibitors, and I think that very great weight ought to be attached to their utterances, as the Pouter is *par excellence* the bird of Scotch fanciers. But then, alas! the Scotch doctors don't agree. I wish they were all "U. P.'s," I mean "United Pouter" men, but then they are not. Full im-

portance also should be given to this variety, because though other Pigeons are pretty, graceful, elegant, yet of the Pontor only can the word "grand" be used. It is, indeed, a *grand* Pigeon.

Now, looking back historically, I find that the only Ponters that were considered strict fancy birds were the four Pieds—Blue, Black, Red, and Yellow; but the laws of the fancy are not like those of the Medes—unalterable; thus White has been added, and rightly, although the old writers do not mention it at all, and even Brent, writing so recently as 1860, says only "pure White are admired by a few." But, to come to present days, I find that the two national representative Shows, the Crystal Palace and Glasgow, differ as to the order of merit (inferred by their arrangement of classes) as to colour. I will premise that a hundred years ago the order was Yellow-pied, Red-pied, Black-pied, and Blue-pied last. Brent gives them thus: Blue-pied, Black-pied, Red-pied, Yellow-pied, and White. The Crystal Palace Committee arrange the colours thus: Pieds—Blue, Black, Red or Yellow, and White, following Brent, then any colour or markings; while our Glasgow friends arrange the colours in this order—Black-pied, White (mark this), Blue-pied, Red-pied, Yellow-pied, then Mealy-barred, then lastly irregular in colour and marking.

I should like the order of colour to be settled; an election taking place like the rose election, with this difference, that once done it is done for ever, or for years. I incline to the colours being placed according to the difficulty in getting them good; then, of course, White would stand last.

I would, as I have before written, add Mealy, although Eaton, a recent writer, calls it "the most despicable colour in the feather," and I have myself written against it; but all matters, even the highest political affairs, are now settled by compromise—giving and taking. Perhaps each leading Pouter fancier would send his order of colours as he thinks they should be. These lists sent to our Editors would by them be sent to me, and the whole table printed together. Here we should have a basis to work from, and perhaps the Crystal Palace Committee, and perhaps Glasgow too, would adopt whatever the result of the election would show to be the predominant feeling.

I would, as I have before stated, have smaller prizes for the newly-advanced colours, the fact of Meales and Chequers having prizes awarded at all would tend to encourage "the young and poor fancier." I do not think there is any real difference of opinion between myself and my friend Mr. Huie, according as I understand his last letter. I will only add, in I hope what is pure Scotch *this* time, that a letter from him is always "a sight gude for sair een" to—WILTSHIRE RECTOR.

BEES RE-SWALLOWING HONEY.

MR. PETTIGREW'S challenge on the subject of bees re-swallowing honey has received a capital response in the result of the experiments of your able correspondent "R. S." I had hoped myself to put the question to the proof, and had hived a swarm in a beautiful observatory hive, presented to me by Mrs. Woodbury after the death of her much-lamented husband. Unfortunately the bees took a dislike to the hive, and disappeared just as I was leaving home for a fortnight. But nothing can be clearer told or better managed than the experiment as conducted by "R. S." Having no bar hives in operation just now in my own apiary, I cannot myself try the question in the way indicated; but nothing can be more easily put to the test by persons who are more fortunate than myself. The more witnesses to any presumable truth the better. I observe that my theory upon evaporation is fully endorsed, or rather is sufficiently corroborated, by the experiment of "R. S."—B. & W.

THE CARE OF CANARIES.

A PAIR of Canaries I give to your care.
Don't blind them with sunshine, or starve them with air,
Or leave them out late in the cold and the damp,
And then be surprised if they suffer from cramp;
Or open the window in all kind of weathers
Quite near to their cage till they puff out their feathers.
The birds that are free fly to bush and to grove,
If the wind be too cold or the sun is too hot;
But these pretty captives depend on your aid,
In winter for warmth, and in summer for shade.
When they chirrup, and ceaselessly hop to and fro,
Some want or discomfort they're trying to show;
When they scrape their bills sharply on perch or at wire,
They're asking for something they greatly desire;
When they set every feather on end in a twinkling,
With musical rustle like water as sprinkling,
In rain or in sunshine, with sharp call-like notes,
They are begging for water to freshen their coats.
Cage, perches, and vessels, keep all very clean,
For fear of small insects—you know what I mean!—
They breed in their feathers, and leave them no rest.
In buying them seed, choose the cleanest and best,
I feed my Canaries (excuse me the hint)
On hemp and canary, rape, millet, and lint.

I try them with all till I find out their taste—
The food they don't care for they scatter and waste.
About their bright cages I hang a gay bower
Of shepherd's-purse, chickweed, and groundsel in flower.
At a root of ripe grass they will pick with much zest,
For seeds and small pebbles their food to digest.
But all should be ripe, and well seeded, and I brown,
Few leaves on the groundsel, but plenty of down.
In summer I hang them out high in the shade
About our hall door by a portico made;
In spring, autumn, winter, a window they share,
Where the blind is drawn down to the afternoon glare.
This window, if open beneath them, we close,
Lest the cramp should seize hold of their poor little toes.
A bath about noon on every mild day
Will keep your small favourites healthy and gay.
In hot summer sun-shine, some calico green,
As a roof to their cage, makes a very good screen.
On winter nights cover from lamplight and cold;
And they'll sing in all weathers, and live to be old.

—The Animal World.

OLD QUEENS.

THE question of "A SCOTTISH SCHOOLMASTER," "Do old queens banish themselves?" is very interesting and important, as I believe far the greater number of losses of stock hives occur through the absence of queens when the bees are unable to produce others. My experience may throw some light on the subject, while there are certain points on which I should be glad to be enlightened.

When I commenced bee-keeping, about ten years ago, I purchased a good and early first swarm, which in the following season gave me two swarms—the first having, of course, the old queen of my original stock. The next season my three hives seemed equally strong, and the two hives with young queens swarmed early; while the other—that with my original queen—although full of bees, hung for a fortnight later. I happened to be close by when they swarmed, and saw the queen come out and drop on the ground, one wing being broken. I picked her up and carried her where the bees were thickest, placing her on a branch, where she was speedily joined by the other bees and safely hived.

I carefully watched this hive, and just two months afterwards found the same queen brought outside dead. I then turned out the bees, and found a queen already hatched and laying. I then formed an opinion (comparing this circumstance with what I had read of queens destroying embryo queens when they attained a certain size), which I have since confirmed by several other observations—namely, that when the queen gets very old she is unable to destroy the young queens, and they are often allowed to hatch before the old one leaves or is driven from the hive. I have seen so many proofs of this that I have no doubt at all on the subject. Only last summer I had a hive with an old queen, which swarmed before nine o'clock on a morning not very fine. The queen fell as I expected, and I hived her with a handful of bees for an experiment, allowing most of the bees to return. The same day I heard young queens piping, and a second swarm followed in three or four days. The old queen had evidently been forced out, as the young queens were hatching. My opinion is strengthened by the fact that I can remember about a dozen cases of my own or neighbours' bees swarming and returning to the hive, the old queen being almost invariably found on the ground with a small cluster of bees, and the second swarm with her successor generally coming in from three to six days.

The practical lesson from all this seems to be not to keep queens beyond their third year. They may go safely into the fourth season, but are not likely to do so successfully.—A DORSET SCHOOLMASTER.

APIARIAN NOTES.

THE honey season of 1874 will, we imagine, show very different results in different parts of the country. I am writing on the 6th of July, in the midst of magnificent weather, such as in other years would content the most exacting of bee-keepers. White clover is abundant everywhere, and has been in full bloom for more than a fortnight, yet my bees are comparatively idle, and have made no perceptible addition to their stores for the last month. In some later swarms I can see no sealed honey whatever, and hardly a sign of honey in the open cells. Only one cause is apparent to account for it, which is the excessive drought—exactly the contrary reason which I gave last year as accounting for the extraordinary scarcity of honey which then prevailed.

Here, in our part of Somersetshire, we are as dry 3 inches underground as we were six weeks ago. It is fully twelve weeks since we had rain sufficient to penetrate to the depth of 4 inches. It has been different elsewhere, heavy and abundant rains having fallen recently, which no doubt will enable the fortunate recipients of Heaven's bounty to tell another tale in regard to honey as in other things. The early part of the season gave us

a fair share of honey from the apple blossoms and elsewhere, so that those stocks which survived the winter in tolerable health are pretty well supplied for the coming season. Not so the swarms of the year. And yet evidently a dry summer following an open winter is more productive of honey than a moist summer following a wet winter, as was the case last year; for by this time last year my bees had become impoverished, having eaten up in June almost everything they had gathered in May. I observe, also, that the bees were twice or three times as numerous last year as they are this; breeding, in fact, going on very languidly in all my stocks this year, whereas last year the population of all hives was overwhelming. We shall be glad to know what experience other bee-keepers have to tell of in other parts of England.—B. & W.

BEE PHENOMENON.

NATURE sometimes plays queer pranks, and now and then we witness eccentricities which upset all prior deductions derivable from observations of Nature's laws. Such a case I am about to set before your readers. On the 23rd of June Mr. John Boulton, of Ulverstone, North Lancashire, one of the most ardent and successful of bee-keepers, in examining a hive of pure Ligurians noticed that it contained two fertile queens. Mr. Boulton has been a bee-keeper for many years, and the phenomenon was so contrary to all his preconceived notions, that he naturally felt hard of faith, and kept his own council for the time being. The hive is a square wood and straw, with eight bars, and on each of the two centre bars were the queens, with their attendant subjects, working in the greatest apparent harmony. The queens had been hatched about a month previously. On the following day Mr. Boulton made a further examination, and seeing that the cells in each bar contained numbers of eggs, called the attention of other bee-keepers to the fact. Each and all were of opinion that one or the other of the queens would soon be driven out; but up to the 4th inst. this had not taken place. A friend of mine states that he can remember his grandfather speaking of a similar occurrence; but, of course, this was mere surmise, as the hive was one of the old-fashioned kind, and could not be examined with the same facility as the present one, which is Woodbury's.

Mr. Boulton is anxious for information as to what the result may be, and also as to what course he should pursue. But in order to arrive at this, it should be stated that in the spring he was under the impression that the hive had lost its queen. Later, on an examination, he found two young queens just coming from the cells. They are both pure Ligurians, and have both been fertilised; the broods from them are also pure. The hive has been visited by many bee-keepers, and discussion on the question is very animated here. Would you and your readers kindly give us the fullest information on the subject? It would be esteemed a favour by many subscribers of THE JOURNAL OF HORTICULTURE, who naturally look to you for the solution of matters of difficulty.—J. R. R., *Ulverstone*.

[We should be obliged by our apiarian readers sending us notes on the above.—EDS.]

RAISING QUEEN BEES.

MR. PETTIGREW'S theory of working bees removing eggs into royal cells requires practical proof before we can accept it as matter of fact, and I would suggest that a hive of bees be deprived of their brood and queen now, while there are many drones and eggs of all ages in the neighbouring hives; and surely if they do possess the faculty of transporting eggs, the stock will not perish for want of a single grub. We know they will rob other hives of honey at the risk of their own lives, then why should they not transport a single egg to save the colony? Perhaps it is commonly done; although I have been a sufferer in such cases as sterility in young queens, and young queens being destroyed by misadventure; and perhaps it may be proved to account for the wonderful population of some hives as compared with others in the same stand. At present I do not believe a working bee has the power of securing an egg to the bottom (or rather the top) of a royal cell.—THOMAS F. WARD.

HONEY PROSPECTS.

I NOTICED in my communication last week that the produce of honey both this year and last, has been very scanty in the flowers, and that from quite different causes. And yet I can imagine that some of your correspondents in surprise will tell of considerable gains in honey that have befallen them. If so, we may be sure they have been blessed with heavier rains, or more extensive honeydews than have prevailed generally. It may also happen that here and there under the most unfavourable circumstances of weather and climate, a stock or two have proved exceptionally profitable. I know one or two such instances in my own neighbourhood, where the honey produce has

been generally very defective. How may this be accounted for? It can only be owing to some exceptional state of the stock at the time when honey most abounded. At such time, perhaps, swarming was at its height. Such was mostly the case in May, when almost all our honey hereabouts was harvested. We had some fair ingathering just at that time, and those of my own stocks which happened to be freed from internal commotions and most populous, made the best of the opportunity. They would have done much better but for the miserable condition in which almost all my stocks found themselves at the close of winter.

I fear the exhibition at the Crystal Palace this year will give but a poor notion of the capabilities of English bees. Certainly not many of us would care to exhibit our supers. I have not a single pound. Bad as last year was, I could have exhibited a 20-lb. super; not so this, although my stocks are in general well supplied. I did not enjoy the supers of last year, having been compelled to give them to the bees for food. Anything more untoward for the exhibition could hardly be. Yesterday a little honey was seen glistening in some combs in two or three supers; to-day it has vanished, brilliant and delicious as the weather is. All but farmers and bee-keepers are in ecstasies about it.—B. & W.

WAX.

"A YOUNG APIARIAN" naturally wants to know the cause of combs being different in colour at various times in the season. The combs built in his hives up to the beginning of June were pale yellow; since that time those built have been pure white. He noticed the same differences last year. As the production of wax and comb-building are both interesting to youthful apiarians, I will offer a few remarks here instead of giving an answer through the "Letter Box."

Thousands of people fancy that the pollen carried by bees into hives is for the erection of combs, and many bee-keepers up to the days of Huber were of the same opinion. Happily we live in times more enlightened, when all students of apiarian science know that pollen is gathered for other purposes than comb-building; that bees carry into hives filled with combs great stores of pollen; that when a swarm is put into an empty hive it vigorously commences to build combs, and generally has three or four large cakes built before a particle of farina or pollen is carried into the hive.

Wax is a secretion of bees—that is to say, it is made, or manufactured, or secreted in the bodies of bees from the honey they gather, as milk is a secretion of cows. Wax is both a secretion and an excretion of bees; for after it is formed in their bodies it is excreted on the under side of the belly. Anyone interested in the subject may satisfy his curiosity by seizing a few bees by their wings during the comb-building season. Two small flakes or laminae of wax may be seen exuding from many of them on the under side of the abdomen. These scales or flakes of wax thus excreted are the bricks and mortar of comb-building.

Wax is costly in labour and materials. To fill a large hive with combs a great deal of honey must be gathered by, or sugar given to, the bees of that hive. Baron Liebig's experiments indicated the consumption of 20 lbs. of honey to make 1 lb. of wax. Though I believe his experiments were honestly made and accurately reported, I cannot endorse them, for they were made with 10 ozs. of bees only. Warmth has a great influence on bees in building combs. Experiments must be repeated again and again before one can place much confidence in their correctness. Comb-building is a very costly affair, and when this becomes generally known the bee-keepers of England will utilise their empty combs in a way more satisfactory and profitable than they do at present. The bees in hundreds of hives throughout England died last winter. How valuable are hives with sweet empty combs at the present moment to those who know how to use them for swarms, for nadiring, for supering!

"Do you really advise bee-keepers to use secondhand combs for supering and nadiring, as well as for swarms?" Yes, certainly. We use them in all these ways with very great advantage. If 10 lbs. or 20 lbs. of honey can be stored up instead of being consumed in comb-building there is considerable gain to the bee-master. When a large swarm is put into a hive filled or partially filled with sweet combs, the activity of bees in gathering honey is most strikingly manifested. Neither time nor honey is wasted in comb-building, and for a few days there is no brood needing attention. But why use secondhand combs in supers? To have them rapidly filled; and when hives containing discoloured combs are used for supering, it is with the intention of putting such supers down for run honey, and keeping the bottom ones for stock, and *vice versa* in the case of nadiring.

As to differences of colour in newly-built combs, it may be safely affirmed that the cause of the difference lies veiled in the honey from which the combs are made. No two kinds of flowers produce the same kind of honey, or honey alike in all particulars; and no two kinds of honey produce (through the bees) the same colour of wax. The wax built in spring from the produce of fruit trees is yellow—darker from one kind of fruit than from

another. From the honey of field mustard (*Sinapis arvensis*) the combs are very yellow indeed. The soiled feet of the bees may help to yellow the combs while working on that flower. The combs built from honey gathered from beans are very white. In the case of beans the feet of bees do not touch the farina of the flowers. The petals of beans are pierced at their bottom, and the honey is sucked through the holes thus made. White clover yields very clear and excellent honey, but the combs built from it are not so white as those built from the brown and coarser honey gathered on the moors. Indeed, treacle, when given to bees, yields a much whiter comb than refined sugar. I think it is Huber who states that sugar yields more comb than honey, when given to bees weight for weight. I am not able to confirm or contradict the statement. All I can say on this point is that a few half-pounds of sugar given to a swarm help it very much, whether it is gathering honey or not.

One more thought on this subject, and I shall have done. Wax is a voluntary product of bees. Than this fact there is nothing more wonderful in bee history. When they want wax they produce it; they manufacture it at home speedily. Liebig was wrong in saying that it "took thirty-eight hours to convert honey into wax." Bees commence to build combs a few hours after they are hived. Our artificial swarms build combs as large as a child's hounds in less than ten hours. Frequently in a shorter time than that they have pieces of comb built as large as a watch face. When ventilated too much on their way to the moors, a journey of two or three hours, they often lessen the ventilation by daubing white wax on the wire over the crown hole. The mystery of this voluntary secretion of wax will in my opinion be for ever veiled from the ken of mortals. —A. PETTIGREW.

OUR LETTER BOX.

GAME BANTAMS (G. H.).—The report was written by one perfectly disinterested and qualified. If you are of the opinion you mention, write to the party you wish to challenge to public competition.

SPLIT PEAS FOR PIGEONS, &c. (Ecopias).—We have seen Pigeons eat both split peas and beans, but they are not so suitable to the formation of their throats, and, therefore, not so pleasant for them to swallow. If whole beans or peas were put by the side of split, they would leave the latter for the former. It matters not as to food whether the peas are white or brown, but the brown are much the cheaper. A stamp on the wing of a Pigeon, and on it the owner's name, ought to be used and at once disqualify the bird. Other exhibitors would, and rightly, be up in arms. Supposing some great exhibitor, say Mr. Fulton or Mr. Yardley, put their names on their birds, we scarcely think there would be a second show. If you can mark your birds in some very minute way—for instance, chipping, as we have known the point of one certain feather on one wing, a smaller not a large wing-feather—then the mark would be noticed, and, consequently not be objectionable, and at the same time the owner would be able to identify his birds.

DRIVING BEES (Apis).—If you wish the bees in your old stock to fill another hive this year, the sooner they are driven into it the better.

ADDING AN EKE (Kosa W.).—The hive with a glass super on it could be easily eked. First give the bees some smoke from old cotton rags or tobacco, then lift it off the board, put the eke in its place, and the hive on the eke. But if this be done the bees will commence to fill the eke rather than the glass super. If the weather continue for ten days more as favourable as it has been for the last week, your bees may fill both eke and super.

BEES NOT SWARMING (A Constant Reader).—We advise you, if possible, to prevent your bees swarming now. It is much too late in the season. Should they swarm, you had better drive them as usual, and put the swarm in the parent hive's place. Then turn-up the old hive and cut away all the royal cells you can see. Then return the swarm and put the hive back again as before. We cannot account for the absence of drones, except on the supposition that the bees destroyed them early, and have no intention of swarming.

DRIVING BEES (W. Clarke).—If you want to put the bees in a fresh hive and get the honey from the old one, you may turn them out on the day you have named; then help the turn-outs, by feeding, to make combs and one or two batches of brood. Late swarmers are now heavy, and will yield a great deal of honey.

CROSS STICKS IN HIVES (T. G.).—Without cross sticks in common hives the combs are easily disturbed and shaken down. It is dangerous to turn up or remove hives without them. They are generally made to run from side to side of a hive; and the guide comb is used to induce the bees to build their combs from front to back, thus crossing all the sticks to which the bees fasten them.

DRIVING BEES (Idem).—You are right in thinking that it would be less trouble to drive artificial swarms into the hives prepared for them, but we like to be certain that the queens are with the swarms, and hence we drive them into hives without sticks, so that we can have a full view of the swarms. When driven into hives with cross sticks the bees hang in clusters on them, making it a difficult matter to see the queens. As soon as the queens are seen we give the hives a sudden shake or violent thump, causing every bee to lose its foothold, and in an instant throw them into other hives prepared with sticks and guide combs. If you do not look for the queens (and many beginners do not), in artificial swarming, the bees should be driven into the hives prepared for them at once.

BEES NOT SWARMING (A Young Apiarian).—No one can tell why your hive has not cast off a second swarm. Bees swarm more readily some seasons than others, and sometimes hives are prevented by weather from swarming when they are ready, or have young queens set. The queens have to be torn out, though the bees are clustering out all the time. Bear in mind that though first swarms are the progenies of full hives, second swarms are not. Frequently second swarms are obtained from hives that are not full of bees. The will of bees has to be considered in both first and second swarms; but in the case of the latter it is more the condition of queens than in first ones.

If second swarms are not obtained a few days after the young queens come to maturity, they will not be obtained at all, though the bees may hang out in a cluster as large as a man's hat. We advise you never to let bees waste their time long in clustering outside their hives. Either swarm artificially at the proper time, or enlarge your hives.

DRIVING BEES OUT OF A SUPER (Tipperary Subscriber).—By blowing smoke into supers rather vigorously bees run below. Sometimes a few decline to leave supers. The slightest touch of sulphur amongst the burning rage will make them go off; but it must be used with the greatest caution and moderation, for if bees are in strength it will kill the bees amongst the combs in an instant. Dead bees amongst honeycombs are all but immovable. The cure is worse than the disease. Drive all the bees you can out of the supers, take them off, place them in a cellar or room, and the bees will fly to the window.

SEPARATING HONEY FROM THE COMB (Idem).—We do not practise Langstroth's mode of boiling full combs to separate honey and wax by one operation, and we should not advise you to follow his suggestion. Better lay the combs, which have been some weeks without bees, in milk-pans before a fire till they are warmed a little; then run the honey by the usual process, but in warming the combs take care not to melt them by the heat of the fire. It is much better to run the honey from combs while they retain their natural heat.

MOTH IN FUN OF STAGS' HEADS (J. W.).—Sprinkle them thoroughly with diluted carbolic acid.

METEOROLOGICAL OBSERVATIONS,

CAMPDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W.; Altitude 111 feet.

DA.	9 A.M.				IN THE DAY.					
	Baromet. at 8 1/2 feet Level.	Hygromet- er.		Direction of Wind.	Temp. of Soil at 1 foot.	Shade Tem- perature.		Radiation Temperature		Rain.
		Dry.	Wet.			Max.	Min.	In sh.	On grass	
1874.	Inches.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	In.
July.										
We. 8	30.190	64.8	6.3	N.W.	61.2	83.5	50.0	128.8	46.2	—
Th. 9	30.129	76.2	64.3	W.	62.8	9.4	54.2	137.3	51.0	0.089
Fri. 1	30.166	75.9	67.7	W.	66.0	88.5	64.6	138.8	62.1	0.020
Sat. 11	29.981	7.4	65.6	W.	67.6	81.8	64.1	120.2	63.3	0.173
Sun. 12	30.011	69.8	60.7	N.W.	65.6	81.7	59.8	127.4	59.0	—
Mo. 13	30.111	65.6	61.0	W.	65.8	80.0	59.2	124.0	55.7	—
Tu. 14	30.062	69.8	64.3	W.	66.1	81.6	59.0	134.3	57.1	—
Means	30.071	70.5	63.8		65.0	81.8	58.7	129.3	58.5	0.281

REMARKS.

8th.—Fair, but dark and hazy morning; fine pleasant day; and starlight night.

9th.—Very fine hot day; lightning in S.W. at night.

10th.—Very hot, rather high wind; lightning in E. and W. at 8 P.M.; thunder at 9 P.M.; thunder shower about 11 P.M.

11th.—Fine morning, but soon clouding over; very cloudy after 3 P.M.; thunder 2 to 5 P.M.; and lightning in E. at 4, and more or less till 7.30 P.M.; heavy rain 7 to 8 P.M.

12th.—Very fine throughout, though looking stormy about 8 P.M.

13th.—Rather hazy morning, very fine afterwards.

14th.—Fine, warm, summer day.

Warmest week this year, prevailing wind westerly.—G. J. SYMONS.

COVENT GARDEN MARKET.—JULY 15.

BRISK demand for and good supply of the usual sorts of hush fruit; a large quantity being taken to the north, so that the markets generally are kept cleared. There is again a large cargo of West Indian Pines of good quality on the market, and these have much reduced the demand for home-grown. Black and White Grapes are very plentiful, but do not reach the usual standard in appearance.

FRUIT.

	s.	d.	s.	d.		s.	d.	s.	d.		
Apples.....	1	0	1	6	Mulberries.....	1/2	lb.	0	10	0	
Apricots.....	doz	2	0	4	Nectarines.....	doz.	8	0	18	0	
Cherries.....	1/2	lb.	1	0	Oranges.....	1/2	100	4	0	16	0
Chestnuts.....	bushel	0	0	0	Peaches.....	doz.	10	0	21	0	
Currants.....	1/2	doz	4	0	Pears, kitchen.....	doz.	0	0	0	0	
Black.....	do.	5	0	0	dessert.....	doz.	0	0	0	0	
Figs.....	doz.	6	0	12	Pine Apples.....	lb.	2	5	6	0	
Fiberia.....	lb.	1	0	6	Pears.....	1/2	doz	0	0	0	
Gobs.....	lb.	1	0	1	Quinces.....	doz.	0	0	0	0	
Gooseberries.....	quart	0	6	0	Raspberries.....	lb.	0	6	0	9	
Grapes, hothouse.....	lb.	1	8	6	Strawberries.....	1/2	lb.	1	0	3	0
Lemons.....	1/2	100	8	0	Walnuts.....	bushel	10	0	16	0	
Melons.....	each	4	0	8	ditto.....	1/2	100	2	0	2	0

VEGETABLES.

	s.	d.	s.	d.		s.	d.	s.	d.
Artichokes..... doz	8	0	0	0	Lettuces..... doz.	1	0	2	0
Asparagus..... 1/2 100	4	0	8	0	Mushrooms..... doz.	2	0	8	0
French..... doz	0	0	0	0	Mustard & Cress..... punnet	0	2	0	0
Beans, Kidney..... 1/2 10	2	0	0	0	Onions..... bushel	4	0	7	0
Broccoli..... bushel	4	0	0	0	pickling..... quart	0	6	0	0
Beet, Red..... doz	1	0	8	0	Parsley per doz. bunches	2	0	4	0
Broccoli..... bundle	0	9	1	6	Parsnips..... doz.	0	9	1	0
Cabbage..... doz.	1	0	1	6	Peas..... quart	1	0	1	6
Cap-sicums..... 1/2 100	0	0	0	0	Potatoes..... bushel	3	6	6	0
Carrots..... bunch	0	6	1	0	kidney..... doz.	4	0	8	0
Can flower..... doz.	2	0	4	0	New..... 1/2 lb.	0	0	0	0
Celery..... bundle	1	6	2	0	Radishes..... doz bunches	1	0	1	6
Cucumbers..... doz.	2	6	3	0	Rhubarb..... bundle	0	9	1	0
pickling..... doz	0	0	0	0	Salsify..... bundle	1	6	0	0
Fennel..... doz.	2	0	0	0	Scorzonera..... bundle	1	0	0	0
Fennel..... bunch	0	8	0	0	Seakale..... basket	0	0	0	0
Gari..... lb	0	6	0	0	Shallots..... 1/2 lb	0	8	0	0
Herbs..... bunch	0	8	0	0	Spinach..... bushel	2	0	8	0
Horseradish..... bundle	3	4	0	0	Tomatoes..... doz.	2	0	4	0
Leeks..... bunch	0	3	0	0	Turnips..... bunch	3	0	4	0
					Vegetable Marrows..... doz.	2	0	3	0

WEEKLY CALENDAR.

Day of Month	Day of Week	JULY 23—29, 1874.	Average Temperature near London.			Rain in 43 years.	Sun Rises	Sun Sets.	Mean Rises.	Moon Sets.	Moon's Age.	Clock before Sun.	Day of Year.
			Day.	Night.	Mean.	Days.	m. h.	m. h.	m. h.	m. h.	Days.	m. s.	
23	Th		74.0	51.4	62.7	21	12 54	0 47	11 3	29 11	10	6 11	204
24	F		72.6	51.7	62.1	14	14 4	59 7	27 4	54 11	11	6 12	205
25	S	William Forsyth died, 1804.	73.9	49.4	61.9	13	15 4	57 7	40 5	morn.	12	6 13	206
26	SUN	8 SUNDAY AFTER TRINITY.	73.7	50.3	62.0	22	16 4	56 7	46 6	30 0	13	6 13	207
27	M		74.9	50.7	62.8	19	18 4	54 7	39 7	22 1	14	6 13	208
28	Tu	Buckingham Horticultural Show.	76.4	50.8	63.6	21	19 4	53 7	18 8	39 2	15	6 12	209
29	W		75.5	49.9	62.7	18	21 4	52 7	45 8	52 3	16	6 11	210

From observations taken near London during forty-three years, the average day temperature of the week is 74.4°; and its night temperature 50.5°. The greatest heat was 93°, on the 24th, 1853; and the lowest cold 34°, on the 29th, 1858. The greatest fall of rain was 1.48 inch.

PERPETUAL-FLOWERING CARNATIONS.



HERE is no more beautiful and sweeter flower than the Carnation, no plant so intractable as regards training, none so ungainly and uninviting in aspect. It is quite necessary to state this, for anyone attempting its culture must not expect to find in the Tree Carnation neatness of habit, nor need compactness be sought by an infinity of stakes, and twisting and twirling the shoots about them until a balloon or other form be secured.

The shoots are so brittle, so apt to snap at the joints, that very careful handling is at all times necessary. The best form of plant that I have tried is cylindrical, a few neat stakes, painted green, being placed all round the pot, and the shoots trained on them in a spiral manner; this tends to induce the plants to put out shoots near the base, whereas when the shoots are trained erect those for future flowering are put forth at the upper part of the plant, and the plants attain a height altogether disproportionate to the furnishing of the base. Even young plants from cuttings have the tendency to grow tall. Stopping will, of course, encourage the production of shoots from the base, but they are slow to appear, and after all will grow as tall as the shoots first stopped would do before throwing for flower. I like the plants, however, to have three or more—in fact, as many shoots as can be had before allowing them to run up; but then stopping for the production of side shoots must be practised for a considerable time before the desired result is obtained, and the number of flowers is not increased to such an extent as to warrant this course of preparation being followed. It will take two years, and in some instances three years, to form a plant well furnished at the base, the plants during that time requiring considerable attention in watering, and taking up in winter, when they must have protection, space that in many cases can ill be spared; whilst if we content ourselves with a smaller plant that may be stopped once or not at all, it will give us nearly as many, sometimes quite as many, flowers in twelve months as the plants two or three years old.

Young plants flower more freely, and have finer flowers than older plants; they take up considerably less pot room, less head room, and are passable in appearance, which is more than can be said of plants after the first year of flowering. I have not seen a really passable plant of a Tree Carnation or Picotee: I have heard of them, and should, indeed, be glad if anyone would let out the secret of forming a really handsome plant. I know some are of dwarf, I ought to say herbaceous, habit, the flower stems rising from the plant at no great distance from the soil, dying down after flowering, the young shoots not produced upon their stems, but rising from the base, and so preventing that legginess complained of in the Tree Carnation. Such, however, are not Tree Carnations; the flowers are not produced in succession, but all at a time, the flowering being then over for the season: hence they are not Tree nor Per-

petual-flowering Carnations, though they may be the offspring of plants having the Tree and Perpetual-flowering habit thoroughly fixed. It is noteworthy that seedlings from a Tree Carnation will afford both the Tree and the border type of plant; some will grow 3 or more feet in height without putting out a side shoot, and when they do so it will be at an undesirable distance from the base of the plant. This last is the true type of the Tree Carnation, and the only one exhibiting the Perpetual-flowering character. It does not flower in summer if the seed is sown in the April of the previous year, or not until late in summer, and the flowers are slowly and successively produced; the majority of such plants do not flower until late in autumn, and in a suitable temperature (50°) their blooming is prolonged until spring. These are the most valuable, they flower at a time when sweet-scented and useful flowers for cutting are scarce, and few are so enduring in a cut state.

The other kind, resulting from the seed of a Tree Carnation, has no claim to the name, nor to be considered Perpetual-flowering. It should be placed under a distinct head. Its merits are dwarfness of plant, profusion of bloom; the flowers are as sweet, but not so large as those of the Tree Carnation, having more the character of a Pink than of a Carnation, and having the toothed or serrated edge, showing the tendency to revert to the species, whilst many such seedlings have very fairly-formed flowers, though with narrow petals. The flowers are good for cutting, and more freely produced than in the florists' varieties. In this kind fresh shoots spring from the base of the plant, and do not extend upwards nearly so much as the others without flowering, the height varying from one foot to three or four. I have one that does not exceed a foot in height, with rather small flowers, smooth broad petals, and good in form, it being a Picotee with a white ground and maroon edge; another, rather tall (2 feet 6 inches), producing its shoots from the base, has large flowers 3 inches across the base or lower petals, it is a yellow ground with a carmine edge—a Picotee, of course, and a perfect half ball. There is also among some seedlings a pure white Carnation superior to The Bride, having the dwarf habit; and another of a monstrous character, white ground with purple edge, and measuring 4½ inches across. It is a sort of flower within a flower, not uncommon to the Rose, but, unlike the latter, forming a green centre, the Picotee having two perfect calyces, one inside the other, and what is most remarkable, the petals of the pod within the pod appear simultaneously, and so we have a large flower of many petals.

Allusion is made to these seedlings not with the view of praising them, for there are no doubt others vastly superior—though some of the best named varieties do not put them to shame—in colour and form; whilst for profusion of bloom I have no hesitation in pronouncing in favour of seedlings. They have not all double flowers, but the single are not more than a sixth, and even the single flowers are not altogether useless, nor wanting in scent. Seedlings are also freer in growth than plants perpetuated from cuttings, and come very true to character. Seeds in

separate colours may be had of our principal nursery and seedsmen in Self, Flake, Bizarre, and Fancy varieties, and Picotees of the Perpetual or Tree kind. After growing them anyone will not care so much about the named sorts, seedlings being for general purposes much more easily managed.

For plants to bloom late in the summer, and in the autumn and winter of 1873, prolonged into 1876, no time is so good for sowing as the middle of July. Seeds sown in March or April will produce plants which will flower in the May and June following and up to autumn. In either case all that is required is to sow the seeds in pots or pans of fine soil, covering about a quarter of an inch deep, and place in a frame, keeping the soil regularly moist. The plants will soon be up, and should be kept near the glass, and have air. When the second leaves are about an inch long, pot-off singly in 3-inch pots, and stand them on ashes in a cold frame, kept rather close and shaded until re-established, and then they cannot have too much air and light; only in the case of the seedlings raised in July rains should be guarded off. This may be done by tilting the lights. In winter the plants should have protection from frost, with air at every favourable opportunity, and when the weather becomes mild in spring well harden-off, and shift into larger-sized pots in April, $4\frac{1}{2}$ -inch pots being quite large enough. In May, after having been well hardened-off, they may be placed in a sheltered position on ashes outdoors, and be duly supplied with water. Early in June they should have 6 or 7-inch pots, according to their size, and be returned to the same position, fully exposed, but sheltered from winds. In potting, have the soil rather dry, and pot firmly. Keep duly supplied with water, and in September remove to a light airy house, with a temperature ranging from 45° to 50° . Neat stakes will be required to support the flowering stems.

The plants from seed sown in April will need to be potted-off when the first pair of second leaves are developed, and should be sheltered in a cold frame for a few days, keeping rather close and shaded, moist but not wet, then expose fully to light and air, keeping in summer in an open sheltered situation, and in September remove to a light airy house. The plants may be potted in 6 or 7-inch pots in September when the $4\frac{1}{2}$ -inch pots become full of roots. They need no further potting, and will, with due care in watering, flower early in summer, and continue to flower for months. After flowering they may be cut down to the young shoots, and be fresh potted, giving a slightly-increased size of pot, the sides of the ball being loosened. Moderate drainage will suffice, but it should be free, as also should be the compost, which, though made firm, ought to be of a gritty nature. Good, rather strong, fibrous yellow loam three parts, half a part leaf soil, half a part old, dry, cow or hotbed manure, with a sixth part the whole of old mortar rubbish, the whole broken-up small, but not sifted, form a suitable compost.

Named varieties are increased by cuttings, which, for winter-flowering, are best taken off in February; one good joint and the growing point will be enough. They may either be placed singly in small pots, which I prefer, as there is no fear of disturbing the roots in potting, or they may be inserted round the sides of a pot in sandy soil, placed in a mild bottom heat, and covered with a hand or bell-glass. If kept moist they will be rooted in a few weeks, and their being so may be known by their growing freely. Then admit air gradually, and withdraw to a cooler house, when they may be potted singly, or if in single pots, placed in those $4\frac{1}{2}$ inches in diameter. In June they may be turned out of doors after being well hardened-off, standing them on ashes in a sheltered position. It does not answer to plunge the pots, for though the plants grow more freely, the check consequent on removal is too great; at least, they do not flourish after removal. They ought to have 6 or 7-inch pots after the pots are full of roots, and before becoming pot-bound. These sizes of pots are sufficient for plants the first year. By the middle of September they should be housed and have a light airy position. To flower satisfactorily the temperature should not be much less than 50° from fire heat; the reason they do not flower in winter in ordinary greenhouses is solely want of temperature. As the plants advance the stems will need the support of neat stakes. When showing for bloom weak liquid manure may be given at every alternate watering.

Cuttings may be put in at intervals throughout the year, monthly if thought desirable, but three times will be often enough—namely, in February, June, and September. The February cuttings will give a late winter bloom, the June ones a summer one, and those put-in in September the best autumn

and winter-flowering plants. They will strike without heat under a glass in the greenhouse shaded, but the rooting is more speedy in bottom heat. Those having a few plants will do well to keep up the stock by putting in cuttings occasionally, as from some unknown cause the plants die after they are large. Large plants need not be potted oftener than once a-year, giving the least possible shift; but I have ceased to care for old plants, and intend growing young plants and cuttings.

To prevent the bursting of the "pod" of bloom place a ligature about half way up the calyx; the best is an india-rubber band, such as may be had of most stationers. Cut down the upper part of each division of the calyx to the band to enable the flower to open regularly.

A dozen of the best named kinds are—

Asot Yellow (Picotee), edged with crimson.	Prince of Orange (Picotee), yellow, edged crimson.
Empress of Germany, white, striped rose.	Princess Beatrice, bright rose.
La Belle, white.	Princess Christian, pink.
Le Grenadier, scarlet.	Queen of the Belgians, white, striped rose.
Marchioness of Westminster, deep rose.	Vulcan, bright red.
Monsieur Baldwin, scarlet.	Zouave, red.

—G. ABBEY.

LOVE AMONGST THE ROSES.

THE reason why no report appeared of the Exeter Rose Show in our last Journal was simply this: I reached home on Saturday evening, and on Monday evening left again for Birmingham, and so had no time. Although a report from a local paper, and a very good one, has appeared, yet I think that a gossiping report of

THE DEVON AND EXETER ROSE SHOW

will not be out of place. Devon is *par excellence* a Rose county. Do we not owe to it Devonensis, prettiest and best of English Roses? Do not some of our very best amateurs live there? Are not my very good friends, Mr. Baker and Mr. Camm, not only enthusiastic but liberal admirers of our queen? for they have testified to their zeal and liberality by offering a £20 prize for the best seventy-two Roses (and the competition for this formed one of the features of the Show). And not even Hertfordshire itself, with its rich fatty loam, can excel this county in its capability for growing the Rose; and yet, as I have already stated, nowhere have I seen more terribly the results of an ill-conditioned spring than in the soft and balmy climate of Exeter.

The Exhibition was held in the public grounds called the Northernhay, and under the able management of Mr. Gray and the exertions of a capital Committee all went smoothly. The arrangements were admirable, and there was no jarring or strife, there were no complaints of favouritism, and the harmony that prevailed was what ought to be ever seen at a flower show. I hope the time is rapidly passing away when discontent and jealousy are the order of the day. Politicians who can fire away finely at one another in the House can be the best of friends in private; the barristers who have been belabouring one another during the case can hobnob together at the bar mess afterwards; and florists (most of all rosarians) should be able to do the same, and if beaten bear no ill will. Nothing can be more unseemly than an infuriated exhibitor, or, what is as bad, the quietly cynical one who wonders what those Judges know about flowers.

I have never seen a closer fight than in the class for the £20 prize; and never have Judgea had a more difficult and responsible task enhanced than by the fact that there was a drop in the second prize to £5; and for the season a fine lot of blooms was staged, the competitors being Messrs. Paul & Son, Turner, Cranston, Keynes, Prince, and Cant—the very *crème de la crème* of our professional exhibitors. After a long and careful examination the first prize was awarded to Messrs. Paul & Son, their box of blooms being more even and better finished. In it were remarkably fine blooms of Etienne Levet, Charles Lefebvre, Centifolia rosea, Duc de Rohan, Louis van Houtte, Bessie Johnson, Cécile de Chabrilant, Souvenir de Paul Néron, Cheshunt Hybrid, Marie Baumann, Comtesse d'Oxford, Madame Lacharme, Louise Peyronny, Baronne Rothschild, and their own seedlings—Reynolds Hole, a very fine dark Rose, and which will worthily represent the rosarian whose name it bears; Wilson Saunders, a very fine flower of the Charles Lefebvre type, but free from any velvety shading; The Shah, a seedling from Duke of Edinburgh; and another

unnamed seedling, which promises to be a very fine garden Rose, brilliant in colour, and good in habit. I shall have more to say of these by-and-by, as I have visited them in their own home since the Show. Mr. Turner was a good second, and amongst his exhibits were Miss Poole; Le Havre, a truly beautiful Rose, brilliant in colour and good in form; Antoine Ducher, Devienne Lamy, Duchesse de Caylus, Edouard Morren, Ferdinand de Lesseps, François Michelin, Général Jacqueminot, Elie Morel, Marguerite Dombain, Marquise de Castellane, &c. Mr. Cranston and Mr. Prince were placed equal third. In 48's Mr. Turner was first, and Mr. Keynes, who has had to fight under great disadvantages, came second. His blooms wanted size, but that was not to be wondered at. The classes for new Roses were again disappointing, and no way altered my already expressed opinion that no great harm would be done to cut them out altogether.

In the classes for amateurs our enthusiastic friend the Rev. J. B. M. Camm came out with flying colours. He was near at home, and one's only regret was that the great loss sustained by Mr. Baker had not brought these two redoubtable champions into a closer contest. Mr. Camm was first in forty-eights and twenty-fours, and, as usual, was strong in Teas. His blooms of *Souvenir d'Elise*, *Niphetos*, *Souvenir de Paul Néron*, *Maréchal Niel*, and others are always a sight, and certainly tend greatly to enhance the beauty of his boxes; but we saw at Birmingham how one exhibitor had lost his chance by too great a predilection for Teas, putting in some blooms, because they were Teas, which had much better been left out. Besides these Mr. Camm had some fine blooms of *Alfred Colomb*, *Baroness Rothschild*, *John Hopper*, *Marie Baumann*, and other good Hybrid Perpetuals. Mr. Baker came in a very good second in the class for twenty-fours.

I must not omit a reference to the tent containing the entries for table decorations and vases of cut flowers for two reasons. First, because it gives me an opportunity of endorsing what my friend "C. P. P." said in the last Journal as to the extreme into which many have been led, owing to their desire to avoid overcrowding, to make their vases poor, forgetting, too, that as they have to be seen at night, the few flowers on which they do rely then fade into nothing; and secondly, because I have not seen, taking them all in all, a better collection of stands—far better, let me say, than those I saw at Birmingham in the following week. Those exhibited by Miss Harris, of Salisbury, which won the bracelet given by the Sheriff, were excellent; while the vases of wild flowers were admirably set up. The time was a fortunate one for those who exhibited in the class, as the scarlet Poppy (the only scarlet flower we have except the little Pimpernel) being in flower tended to relieve that dulness which is too often the characteristic of bouquets of wild flowers.

I hope the many kind friends with whom I was brought in contact, and to whose numerous invitations I was obliged to give an unwilling No, will let me say how cordially I thank them for the very great kindness, &c., with which I was received, and to say how greatly I prize that friendship which has been originated, and which will be, I hope, strengthened by our common loyalty and devotion to the queen of flowers.—D., Deal.

TURNIP CULTURE.

ALL gardeners know the importance of having an early crop of this desirable vegetable, but I think few save those who have to grow Turnips know the amount of anxiety attending their cultivation in the early season—that is, from March up to the beginning of July. From that period up to the end of the month, which may be considered a good time to sow the main crops, there is seldom any difficulty after the plants are fairly started, and if on well-managed ground a good crop may reasonably be expected. During the early season, however, when the Turnip is most scarce, and often most wanted or called for, there are many things which operate seriously against its growth, and render the condition of the crop very precarious.

In all my experience I have no recollection of such a peculiar season as the present for the growth of this particular vegetable. My first crop sown at the beginning of March all run to seed, not one fit for use. In other seasons more favourable I had a few dishes, though it is not a crop from which much can be expected, but I have never before been without having sufficient to be considered worth the trouble. My second crop, sown a fortnight later, came up well, and grew fairly till the

flea attacked the plants, and so ravenously that, notwithstanding all so-called remedies, it devoured it, and I only had about four dishes fit for table; the remainder, though of a fair size for the sort (Early White Dutch), were only fit for flavouring soups, &c. The next crop, sown the second week in April, consisted of three sorts—Early White Dutch, Early Stone, and White Globe. My object in sowing three sorts was to ascertain if the most vigorous would fare better than the dwarfed sorts under the difficulties that beset them; the Early Stone being a coarser grower than the White Dutch, and the White Globe much the coarsest of the three, though neither of the two so early as the White Dutch. I am glad to say that this is a better crop. Very few of the White Dutch were fit for use; they were hard and stringy. The Early Stone produced a number of even-sized Turnips, most of them fleshy and good, though not so large as usual, and the White Globe is the best of all; although I have had to wait some time longer for them than for either the other sorts, this is the one that pays the best. White Globe and the Early Stone appeared vigorous enough to grow out of the way of the attacks of the flea, but the leaves of the White Dutch were entirely eaten up by this little pest. At one time I almost decided to pull them up, but I thought of what a Scotch gardener once told me when I was serving under him in the kitchen garden—it was about a similar occurrence. He said, "By no means pull them up. Let this lot stand and save the others; for if you destroy these the flea will attack the other sort, and we shall be likely to lose all." There was, in my opinion, much truth in that. The Turnip flea has a preference for certain varieties of the plants which it attacks, and so it seems to have for the Early White Dutch Turnip beyond other sorts, so far as I have seen. Can others confirm that?

In some gardens with some sorts of soils, light and poor, or heavy and not well cultivated, early Turnips seldom turn out well; but in gardens situated somewhat low and moist, with a moderately rich well-cultivated soil, there is less difficulty in getting good early summer Turnips. Such gardens may not be so suitable for the generality of spring crops, but the Turnip likes a cool bottom retaining moisture to a good extent. At Chilstone Park, in Kent, there is a large pond running along the whole of one side of the garden, and this seldom suffers to the extent that others do in a dry spring or summer, because from its situation the bottom, after one gets down to the depth of 3 feet, is always cool and moderately moist. This garden turns out some of the finest spring and summer vegetables I have ever seen, and among them generally some excellent Turnips early in the season.—THOMAS RECORD.

NOVELTIES IN THE ROYAL GARDENS, KEW.

THE Victoria regia has commenced to flower, and will continue till the end of October. The bud opens between five and six o'clock in the afternoon; the petals are then pure white, and a delicious perfume is emitted. The flower closes in the morning; and when in the evening it again opens, the petals are tinged with red, and they then become reflexed. The plant is raised from seed every year, and sown about the 1st of January. It flowers in about twenty-six weeks; the leaves have then attained a diameter of 6 feet, and the plant fills a tank 36 feet in diameter. "D'Orbigny says, 'When I reached Corrientes . . . the inhabitants informed me that the seed is a valuable article of food, and being eaten roasted like Maize it has caused the plant to be called Water-Maize (*Maïs del Agua*).' M. Bonpland says the farina is not only superior to that of the Maize, but that it is preferred to the finest Wheat and to the flour of the white Cassava."—(*New Garden Guide*.)

Several Yuccas are in flower. *Y. recurvifolia*, between the New Range and the Palm house, is, perhaps, the most handsome, partly from the graceful habit of its recurved foliage. The others are near the Temperate house—*Y. filamentosa*, *Y. flaccida*, and *Y. gloriosa*. The different species are of the greatest value for town planting.

On the Rockwork, of interest and recently open, are *Sedum arborescens*, a distinct species apparently unpublished. It is a perennial of erect branching habit; the leaves are small and terete, or on the stouter stems shorter and of conical form; the flowers are white. *Mimulus cardinalis roseus* is a pretty variety with rose-coloured flowers. *Lilium philadelphicum* is a striking species about 1 foot high. The flowers are orange-coloured with dark spots. It has a distinct appearance, from the long claw of the perianth segments. According to Dr. Drummond the bulbs are eaten by the Indians. *Campanula Zoysii*

is a pretty new species, and one of the smallest. It is a native of central Europe. The leaves are produced in a tuft, from which rise the flower-stems, each bearing a few erect flowers; the corolla is light blue, tubular, narrowing to the top, and has small teeth that incline slightly inwards, and have on the inner surface numerous fine hairs, closing the mouth and evidently preventing the free ingress of insects. It is free-flowering and quite distinct, and should be added to every collection. *Echinopsis Eyresii*, which is hardy in the south of England, has a fine flower about 7 inches long and about 4 in diameter.

In the Orchid house in flower are two plants of *Oncidium lanceanum*, one of which has an extremely fine spike. The flowers are richly coloured with a lip nearly white. Two of the flowers at the top are united by their ovaries, and the union continues along the centre of the back of two of the sepals for about three-quarters of their length. There is otherwise no deviation from the structure. *Calogyne speciosa* is interesting from its curious brown lip, and is nearly always in flower. *Cypripedium Stonei* is very attractive. *Broughtonia sanguinea* is of a crimson colour rarely found among Orchids. It lasts in bloom a considerable time. Some cultivators have found it difficult to grow; a high temperature with plenty of moisture is what it seems to require. *Sobralia macrantha* is flowering on stems about 18 inches high. *Oncidium Wentworthianum* has a fine spike more than 7 feet long; *O. Schillerianum* has a long and slender tortuous spike with numerous small flowers. *Odontoglossum Lindleyanum* is scarcely worth cultivation. The bulbs are much like those of *O. Alexandræ*, for which it has been imported. *O. Schlieperianum* is also in flower.

In the Temperate house *Passiflora cinnabarina* has been in flower for a considerable time. It only requires an increase of breadth in the petals to be a valuable climber, and might repay the attention of hybridisers. It is of free growth, with large dark green leaves, producing the red flowers freely. If to the other qualifications could be added a well-formed flower of the same colour it would be a decided acquisition for the greenhouse. It is a native of Australia, and is figured in the "Botanical Magazine" of 1871. *Sollya linearifolia* is a delicate climber, with wiry stems, small leaves, and deep blue campanulate flowers. *Desfontainea spinosa* is a Peruvian shrub much resembling a Holly, and when in flower is very beautiful. The flowers are tubular, bright scarlet, with a yellow limb, and are freely produced. It is nearly hardy, and will stand out of doors in favourable situations. *Fuchsia fulgens* is very handsome planted out and in pots. *F. corymbiflora* is equally handsome, though quite different in style.

By the riverside two forms of *Colutea arborescens*, the Bladder-Senna, are very ornamental and attractive. The one has light-coloured flowers and pods, and the other dark. They are flowering freely, and have a large number of the curious bladder-like pods. Though a common shrub it is worth a conspicuous position; it is one in which few would fail to be interested. It may be increased by means of cuttings or seeds; the latter are freely produced. The leaves are recommended as answering all the purposes of Senna. "It is a native of the middle and south of Europe in hedger and bushy places, on Mount Vesuvius, even in the ascent to the crater, where hardly any other vegetable is to be found."

On the wall of the Herbaceous ground the interesting *Rubus biflorus* is bearing fruit, for which it might be cultivated. The strong white stems are very ornamental. It requires the same cutting-away of the old canes as the Raspberry. It has been distributed as *R. leucodermis*, a name it well deserves, but which it cannot hold, as a North American plant has prior claim. Among the Lilies, the white-flowered *L. longiflorum* and *L. longiflorum* var. *eximium* are very handsome and are deliciously scented. The latter is a form with large flowers and is the better of the two. *Gaillardia Amblyodon* is a new and very desirable species from Texas. The flower-heads are 2 inches in diameter, with ray florets of a rich cinnabar red. It was figured in the "Botanical Magazine" for February of this year.

In the Succulent house several *Fourcroyas* are throwing up flower-stems—a large plant of *F. gigantea*, two plants of *F. Selloa*, and *F. Commelyni*, which has not yet been figured.

CERCIS SILICUASTRUM.—Your correspondent, Mr. A. M. C. Jongkindt Coninek, on page 59, refers to three grand specimens of this curious yet beautiful plant, all of which he states are growing against walls in the Botanic Gardens at Leyden.

There is a specimen of this "plant," or, as I should call it, "tree," in this ancient borough (Guildford) growing quite in the open, which I have lately measured, and find that its height is 27 feet 6 inches, and the spread of the boughs 36 feet. The main stem is forked just above the ground, and each limb at 3 feet from the ground is 3 feet 6 inches in circumference. Frost does not appear to affect this tree.—X.

FLOWER GARDENS IN WINTER AND SPRING.

No. 3.

To *Leucojum vernum*, the Spring Snowflake, is assigned in this paper the prominent position of which its great, and, I regret to say, not-very-well-known merit, renders it worthy. It puts forth its abundant, pretty, and very sweet-scented white flowers in March, each one drooping singly from stems that are not more than 6 inches high. Like most other plants of this class, it thrives best in a light sandy soil that is well drained, as does *Puschkinia scilloides*, which is another dwarf and exceedingly lovely plant, but very little known, although it was introduced into this country from southern Russia upwards of fifty years ago. Its flowers are of a delicate bluish white colour, and it is nearly uniform in height with the Snowflake. The Italian Windflower, *Anemone apennina*, is another very valuable plant. It is perfectly hardy and most accommodating in its habit, thriving alike in shade or sunshine, its large flowers expanding with the earliest Snowdrops. Although each flower is borne singly on its stem, yet the dense-growing plants yield them in such rich profusion as to form perfect sheets of the deepest blue. Once planted it quickly becomes established, requiring no further care or special attention at our hands, and it is certainly most worthy of a prominent place amongst those plants which we regard as worthy of being permanent occupants of our gardens.

Turning now to what have come to be recognised as the legitimate bedding plants of spring, a perfect mine of floral wealth lays open before us. Most of the species included under this heading have several varieties, and as the number of these is constantly increasing, the work of selection assumes a proportionately difficult aspect to the beginner. Blossom is decidedly in the majority here, the number of plants that are valuable for their foliage alone being comparatively limited. The foliage of the Golden *Pyrethrum* assumes a deeper richer shade of yellow than it does in summer; it is certainly the most effective plant of its colour for an edging or front row in beds or ribbon borders. Golden Thyme, though not so bright, makes a neat and pretty edging. But it is in *Arabis lucida* variegata that we have the most charming combination of neatness and elegance; it is just one of those plants which one cannot have too much of. Conceive the effect of an edging of it 6 inches wide, with a similar band of the lovely little rich blue Siberian *Scilla* behind it; follow this with the sprightly pink *Saponaria calabrica*, then let there be a row of the soft grey *Santolina Chamaecyparissus*, composed of plants about half-grown—not with growth blended together, but with the rounded forms just touching each other; and what combination of any plants in any season could equal or at all approach this? I have never had enough of the peerless *lucida* in my hands to plant it in this way, but I am fully aware how exceedingly fine it would be. The more robust *Arabis albidis* variegata, with a pale yellow variegation, so pale that it is often termed white, is a very neat useful plant, far better known than *lucida*. Cuttings taken in October strike well in cold frames during winter. The handsome foliage of the golden-variegated *Vinca major*, borne in pairs upon the long, trailing, flexible growth, as well as the deeper green and rich yellow of the rigid erect-growing *Euonymus ovatus aureus*, are equally desirable for groups or beds of bolder type. *Euonymus radicans* variegatus makes a good silvery edging, but it requires some little time to become thoroughly compact. It may be propagated in spring in heat if cuttings are taken from pot plants growing under glass, or in summer under bell-glasses on open borders. *Ajuga reptans*, the common Creeping Bugle, is much valued for its dark-coloured foliage, which is very effective for geometrical designs or for edgings. Those who are unacquainted with this plant must not expect to find the refinement or richness of a *Colens* in it. I need hardly allude to this, however, for it must be patent to all that the texture of the foliage of plants which are so hardy as to withstand the severity of our hardest winters must of necessity be proportionately stout, and with a harsh and rugged surface. Of other fine-foliaged plants, *Antennaria tomentosa* is inter-

esting upon the sides and crests of ramps or other elevated positions. The *Cerastiums* are, of course, useful, and so are *Sempervivum californicum*, *Sempervivum arachnoideum* (the pretty little Cobweb Houseleek), and another alpine Houseleek, *Sempervivum montanum*.

The bright blue flowers of the alpine Gentian, *Gentiana verna*, are the first of its species that greet us in spring, but they are quickly followed by those of our old favourite *Gentianella*, *Gentiana acaulis*. Deepest and richest of blue flowers, its dwarf compact rosettes yield them in most glorious profusion during April, May, and June. It cannot be induced to do this in full perfection for a year or two after it is planted, and it is consequently more frequently grown in borders or upon rockwork than in the flower garden. None of the varieties of this genera appear to adapt themselves very readily to new quarters, and I have repeatedly experienced this in

transplanting the Marsh Gentian, *Gentiana Pneumonanthera*, from its wild haunts. The double red, pink, and white Daisies; all the *Hepaticas*; the self-coloured purple, blue, white, and yellow Pansies; all the varieties of *Primula vulgaris*, as *Primula elatior*—a bed of mixed kinds of *elatior* has a very brilliant appearance in April and May—the snowy-white *Arabis alba*; *Alyssum saxatile compactum*, of dwarf and compact growth, with bright yellow flowers; the brilliant little *Adonis vernalis*, having very large and striking yellow flowers; the fine old favourite *Viola cornuta*, so easily increased for the spring beds by cuttings taken in July; the pretty rose-coloured *Phlox subulata*, or *frondosa* as it is sometimes termed, and its white variety *alba* or *Nelsoni*, both charming little plants that are densely covered with bloom in April and May; *Lithospermum prostratum*, with its dense rich clusters of lovely blue flowers; and the fine old *Omphalodes verna*, with its brilliant

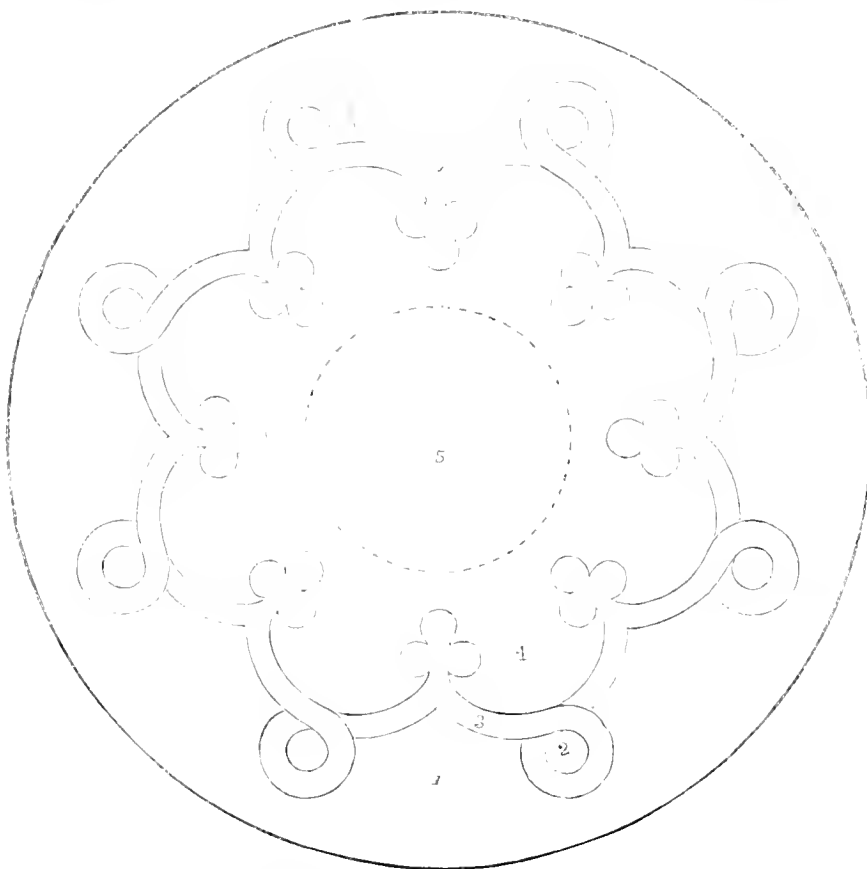


Fig. 23.—DESIGN FOR A CIRCULAR BED ON TURF.

No. 1.

1. Pink Daisy (double). Pink.
2. *Ajuga reptans rubra*. Deep crimson.
3. *Saxifraga hypnoides*. Grey.
4. *Viola cornuta*. Pale blue.
5. *Arabis alba*. White.

No. 2.

1. *Saponaria calabrica*. Pink.
2. *Arabis lucida variegata*. Yellow.
3. *Sempervivum californicum*. Green and black. The acroll to be slightly elevated.
4. Rich purple Pansy (*Cliveden Perpetual*). Purple.
5. *Cheiranthus Marshallii*. Clear yellow.

No. 3.

1. *Viola Lothair*. Indigo blue.
2. Double red Daisy. Red.
3. *Arabis alba variegata*. Pale yellow.
4. *Silene pendula*. Pink.
5. *Myosotis sylvatica alba*. White.

No. 4.—BULBS.

1. *Scilla sibirica*. Deep blue.
2. *David Rizzio Crocus*. Purple.
3. *Cloth of Gold Crocus*. Yellow.
4. *Tulip Rose Gris de Lin*. Rose tinged with white.
5. Mixed clump of *Hyacintha*.

spikes of deep blue nestling so prettily among the dark green foliage, are all worthy of attention, and are easily cultivated, the annual stock of most of them being obtained by division or cuttings taken immediately after the flowers fade.

If sufficient space can be obtained for nursery beds behind a north wall, it is preferable to a situation that is fully exposed to the midday sun, whose burning rays try the young offsets so severely before they are well established, that shading should be promptly applied when necessary. Once fairly

started, due attention to weeding and watering is all that is necessary till the plants are required for the beds in autumn. There is one rule in reference to the soil of such great importance that I do not hesitate to repeat it here. It is never to put spring-flowering plants of any description in soil that is of a close, adhesive, heavy texture, or that is likely to become waterlogged. Make the soil tolerably light, rich, and yet somewhat firm, with abundance of gritty matter; drain it thoroughly, elevate it well above the surrounding level, and it

will form the most favourable staple that can be had for the purpose, as will be clearly seen in the increasing prosperity and rare failures among sorts that have not answered well previously.—EDWARD LUCKHURST.

The accompanying design (*fig. 23*), is suitable for beds of 20 feet and upwards to 100 feet in diameter. If the dotted circle were left out, all the bed, except the scroll, carpeted with one colour, say grey, with the scroll of blue, and the little circles, 2, of crimson, the effect could not fail to be very striking.

MELON JUDGING.

MR. W. TAYLOR (page 47), does me the honour of criticism, which though upon the whole unfavourable to my views respecting Melon judging, to some extent coincides with them. I am glad Mr. Taylor so far agrees with me as to consider "a noble Melon is a great addition to the dessert;" but the following sentences of his second paragraph all go to show that a noble fruit is often disappointing, "not so good as it looked." I do not see how Mr. Taylor can reconcile such a statement as that in the second paragraph—viz., "A noble Melon, but not so good as it ought to be;" and in the third paragraph advance all at once to the contrary opinion, "The most perfectly-developed and highest-coloured fruit" are "also the best flavoured." This I also agree with except as to colour, which I submit is no criterion of flavour in a Melon. "Perfect development," as I accept the term, does not of necessity mean size, nor is "the smallest examples" a plant produces intended by me to have the highest flavour; but I do submit that a Melon plant with three fruit, or less, of not more than 3 lbs. weight each, will have them of better flavour than a plant of which the fruits weigh over 5 lbs. each, the kind being the same, the culture equal, and flavour the test of judging. High colour is not accompanied by high flavour. Some Melons are naturally high coloured—examples, Golden Gem, Golden Perfection, &c., which are good high-flavoured sorts; but we have others equally high in colour, as Paterson's Hybrid, which has been grown to, I believe, 21 lbs. weight, equal in colour to either, with a flavour no better than that of the Mammoth Gourd when ripe.

Grant "the most perfectly-developed and highest-coloured" Melon to be also the best flavoured, and I shall not complain of Melon judging, making no reservation, only that the highest-coloured fruit refers to the highest-coloured specimen of its kind, and not to Melons generally, to any and every kind alike, for they go in races as do Grapes; and to be guided by the colour irrespective of the kind, would be to arrive at an issue foreign to their quality.

"Culture is everything," says Mr. Taylor. No one can tell the quality of a Melon by the exterior, "to be judged correctly it must be cut and tasted." Why? Mr. Taylor tells us, "the most perfectly-developed and highest-coloured fruit of any given kind are the best flavoured." What is there in a Melon that causes such an uncertainty of quality? What is there to recommend the present system of judging Melons by cutting them, other fruits being exempted from so mutilating an ordeal? Simply nothing but prejudice arising from long usage. Were other fruits to be judged by the same test, that of flavour, I venture to predict the prize lists would be different from what they now are, our shows of fruit would be less imposing, few earring to send fruit to be plucked, cut, spoiled in appearance, and wasted.—G. ABBEY.

STELLARIA GRAMINEA AUREA.

Among the newer or least-tried bedding plants of the season this—known best, perhaps, by the name of Golden Chickweed—will, if I mistake not, have many admirers on account of its excellent qualifications as a plant remarkably well suited for use in many ways in the present style of bedding. I am unable to say how long it has been before the public, but last year it came under my notice, and I considered it was a treasure. This spring a friend sent me half a dozen plants in a match-box, with the advice to "take care of it; use all you can get for bedding, and you will like it;" and he is right. I do like it, and would ask others who grow it to let us know at the end of the season what they think of it.

I find it particularly suitable for carpet bedding; it does not exceed 3 inches in height, and it is of a far richer yellow than the Golden Feather Pyrethrum, which most people know very often carries a tinge of green in it, which rather detracts from its value; and though I think the latter plant will

not be dispensed with, yet I predict that where the Golden Stellaria can be procured they will not use so much of the other. A single line of plants will spread a foot or more wide during the summer, and it covers the ground as thickly as a mat, almost every shoot that comes in contact with the soil striking root. I have given my plants a rich soil and excellent drainage, and they seem to thrive with an abundance of water. I have used them in conjunction with *Lobelia pumila grandiflora* and *Alternanthera paronychioides*, and the effect is striking and good to those who look at it. It is increased by cuttings and division.—THOMAS RECORD.

DOUBLE PARASITISM—THE MISTLETOE GROWING ON THE MISTLETOE.

SOME time last year we called at Old Conna, the fine and most charmingly-situated residence of Phineas Riall, Esq., D.L., near Bray. Besides its situation, beautiful surroundings, and magnificent views, there is always here something to be found to interest the lovers of trees and plants, among the number of whom, we may remark in passing, few men have more claim to be classed than the genial, kind-hearted, and widely-esteemed owner of Old Conna. Whether the taste of the visitor lies among the Protean race of British Ferns (a class of plants of which Mr. Riall is an enthusiastic admirer, and of which he has about the most varied collection, both in and out of doors, to be found anywhere), or his hobby be Conifers, choice trees, shrubs, or Roses, he is sure to find at Old Conna something to interest, something to please, and not a little to instruct. But to return to the matter in hand. On the occasion alluded to, on inspecting a fine specimen of Mistletoe growing on an old Apple tree in the garden, and laden with its translucent pearly berries, many bird-sown seeds of itself were observed to be attached to the parasite. Several of these had germinated, and had apparently firmly attached themselves by means of the sucker or rooting end to the branchlets of the mother plant, but in no case then noticed had the plumule or ascending portion taken a vertical direction or developed further growth.

Being much struck with the fact, then patent, of the young Mistletoe plant rooting (if one may so term the process) in the parent tissues, we determined to keep the matter in view, and at a futuro day see what further progress, if any, was made by these partially developed little embryos. With this object mainly in prospect we called at Old Conna in the early part of the present month, and our attention was directed to what appeared to be a sturdy young Mistletoe growing on one of the internodes of the parent plant. Closer inspection left no doubt about the fact. Here was a stout young plant firmly established, which counted two or more years since it raised its little head aloft, and was then about making its third set of leaves. After admiring this tiny but to us at the time exceedingly interesting object, we proceeded to examine more closely the thicker or inner ramifications of the plant, and were rewarded by finding, growing midway on one of the thickest and smoothest internodes, a sturdy young plant three times the size of the preceding, full of health and vigour, with two principal bifurcations, four secondary branches, and five sets of its twin leaves, counting its age probably by some half dozen or more years. Here, then, we found established beyond cavil the interesting and, as far as we know, hitherto unnoticed, or at all events unrecorded, fact of the double parasitism.—(*Irish Farmers' Gazette.*)

SALT AS MANURE.

Various experiments have been made by M. Peligot and others to test the value of salt as a manure. The following summing-up seems to have been arrived at: Salt should never be applied other than in a pulverous state, and never employed on impervious, cold, and humid soils. The best manner to use it is to combine it with other manures, a dose of two hundredweight to the acre being sufficient. When selected to destroy insects, it should be applied before sunrise. In the case of cereals, salt strengthens the stems and causes the ears to fill better, and favours the dissolution and assimilation of the phosphates and silicates. It acts vigorously on Potatoes, and can be detected in their ashes to the extent of one-half of 1 per cent. Asparagus is a veritable glutton in the presence of salt. A dose of three hundredweight per acre acts without fail on Beet, injuring its value for sugar purposes, but enhancing it for the feeding of cattle. Colza has as marked a

predilection for salt as Asparagus; and in Holland, where the culture of Peas is so extensive, salt is something like a necessity. Mixed with hay in the proportion of a quarter of a pound to a hundredweight, the fodder is rendered more appetising; but the best way to feed it to animals is to allow them to enjoy it in the form of rock salt. It is calculated that a horse appropriates daily one-tenth of an ounce of salt, an ox one-half that quantity, and a sheep and a pig one-half that required by an ox.

PORTRAITS OF PLANTS, FLOWERS, AND FRUITS.

CHRYSANTHEMUM CATANACHE. *Nat. ord., Compositæ. Linn., Syngenesia Superflua.*—Dr. Hooker says, "This, which is one of the most beautiful plants of the Greater Atlas, was discovered in 1871 by Messrs. Ball, Maw, and myself, in valleys of that range at elevations of 7000 to 9000 feet, flowering in May, and has since been cultivated both in Mr. Maw's garden and at Kew, where it flowered for the first time in April of the present year. In its native country it forms patches of a silvery green hue, and of considerable size, in rocky valleys, and on mountain slopes exposed to the sun. The [flowers are yellow and] broad white involucre bracts are conspicuous for their silvery whiteness, hyaline texture, and transparency, relieved by a narrow purplish herbaceous central band; their resemblance to the bracts of Catanache has suggested the specific name."—(*Bot. Mag.*, t. 6107.)

ERICA CHAMISSONIS. *Nat. ord., Ericaceæ. Linn., Octandria Monogynia.*—Flowers dark pink. "Many years ago the Cape Heaths formed a conspicuous feature in the greenhouses of our grandfathers, and in the illustrated horticultural works of the day, including this Magazine, wherein about fifty are figured. These have given place to the culture of softwooded plants—Geraniums, Calceolarias, Fuchsias, &c.; and the best collections of the present day are mere ghosts of the once glorious *Ericeta* of Woburn, Edinburgh, Glasgow, and Kew. A vast number of the species have indeed fallen out of cultivation, and a few easily-propagated hybrids for decorative purposes are all that are to be seen of this lovely tribe in most of the best establishments of England. No less than 186 species of *Erica* were cultivated at Kew in the year 1811, now we have not above fifty, together with many hybrids and varieties. Besides the fact of their going out of fashion, there have been two main causes for their present rarity; of these the first and most conspicuous is bad treatment. As with Australian and other Cape hardwooded plants, their culture is special, unknown to most gardeners of the present day, and they will not survive the promiscuous use of the water-pot and syringe, to which they are exposed if mixed-up with many other things. The second is, that very few collectors have been of late years in the Heath district of the Cape, which is almost confined to the narrow strip of country between the Western coast and the coast ranges, and where were the botanising grounds of the collectors sent out at the beginning of the century. *Erica Chamissonis* is one of the few Heaths that extend eastward in South Africa, being found near Graham's Town in the Albany district, about five hundred miles east of Cape Town, where it grows on rocky hills at an elevation of 2000 feet, flowering in October. Seeds of it were sent to the Royal Gardens by Mr. M'OWAN. The plant raised from these flowered in April."—(*Ibid.*, t. 6108.)

ROMANZOFFIA SITCHENSIS. *Nat. ord., Hydrocleaceæ. Linn., Pentandria Monogynia.*—Flowers white. "This very rare and interesting little plant, with the habit of a Saxifrage of the granulata group, is closely allied to the majestic *Wigandia* of our subtropical gardens, though so dissimilar in stature, habit, and general characters, and in coming from so different a climate and country. It is a native of a few distant spots over a very wide range of country in North-Western America, and has been gathered by very few collectors. First, by the late venerable Menzies, the naturalist to Vancouver's voyage (and introducer of *Araucaria imbricata*), in May, 1793, who discovered a small slender variety of it on hanging rocks at Trinidad, in California, lat. 41° 10' N.; next by Chamisso at Sitka in the then Russian, but now American territory of Alaschka, fully a thousand miles north of Trinidad, and by whom it was first described; more lately it was gathered abundantly by Dr. Lyall, on the Cascade Mountains, in lat. 69° N., in the bed of the Sallise river, and a large-flowered variety (*Regel's R. grandiflora*), on the same mountains, at an elevation of 7000 feet. Lastly, we have specimens collected in

South California (probably in the mountains), in lat. 35°, by Dr. Bigelow, surgeon to Lieutenant Whipple's exploration for a railway route across America in 1853-4; this is fully 1100 miles south of Sitka."—(*Ibid.*, t. 6109.)

IRIS OLBIEWSIS. *Nat. ord., Iridaceæ. Linn., Triandria Monogynia.*—"This belongs to a small group of dwarf *Iris*, which inhabit for the most part southern Europe, and of which the *I. pumila*, L. (tab. nost. 9, 1209 and 1261), may be taken as the type. It is a native of the south of France and North Italy, from Nismes eastwards, but apparently not advancing beyond Tuscany. It varies much in the colour of the flowers which [usually purple] are sometimes white. It is distinguished from *I. pumila* by the much larger flowers, which are pedicelled and less fugacious, as also by the shorter perianth-tube. The *I. italica* of Parlatore appears to be only a variety of it; and it is represented by *I. pseudo-pumila* in Sicily. It is very closely allied to, if not a mere variety of the *I. Chamaeciris*, Bertoloni, which has a wider range in France and Italy. The specimen here figured flowered in the Royal Gardens in April of the present year."—(*Ibid.*, t. 6110.)

CAMPSIDIUM CHILENSE. *Nat. ord., Bignoniaceæ. Linn., Tetrandria Monogynia.*—Flowers crimson. "This very beautiful climber is a native of Chili and the Archipelago of Chiloe, and was discovered on the island of Huaffo by Dr. Eights, an American voyager, who sent a small collection of Chilean and Fuegian plants to Sir William Hooker some fifty years ago, amongst which is this plant. It has subsequently been collected by many botanists, most recently by Dr. Cunningham, naturalist to the surveying expedition of H.M.S. *Nassau*, who gathered it as far south as Wellington Island, in lat. 40° S., where it would seem to be common. Its northern limit is probably Arique, near Valdivia, lat. 50° S., where it was found by Lechler. It is not a little remarkable that so beautiful a plant, and one found through so many degrees of latitude in Chili, should have escaped the observation of C. Gay, whose '*Flora Chilensis*,' published in 1845, does not include it. The equally conspicuous *Berberidopsis corallina* (tab. nost. 5343), which, like *Campsidium*, is a native of the neighbourhood of the maritime capital of Valdivia, was also unknown to that author, though he spent many years exploring that country for the Chilean Government. With Messrs. Veitch the plant flowered in April of the present year."—(*Ibid.*, t. 6111.)

PYRUS BACCATA.—*Nat. ord., Rosaceæ. Linn., Icosandria Dipentagynia.*—Flowers white, fruit crimson and greenish yellow. "This charming tree, though so long known in cultivation, has never before been well figured in this country. It has a very wide distribution; in Siberia it occurs in the eastern districts of Lake Baikal and in Dahuria; thence it passes by the Amur river north of China into Japan, whence we have numerous specimens. In the Himalaya it extends from the Indus to the Kumaon, at elevations between 6000 and 11,000 feet, entering the Tibetan region of Piti; and it was gathered by Dr. Thomson and myself in the Moflong woods of the Khasia mountains, at an elevation of 6000 feet. It varies very much as to the pubescence of its parts; the Siberian and Japanese specimens being almost wholly glabrous; the Western Himalayan having more or less pubescent calyces, pedicels, and petioles, and sometimes young leaves beneath; whilst those from the dry region of Piti, on the border of Tibet, are as glabrous as the Siberian; and those from the very wet region of the Khasia are the most pubescent of any. This correlation of humidity with pubescence is not unusual in the vegetable kingdom."—(*Ibid.*, t. 6112.)

RHODODENDRON—Duchess of Edinburgh.—"The beautiful varieties of the *jasmuiflorum* type of *Rhododendron* rank amongst the choicest of conservatory ornaments, being distinct in character, moderate in size, varied in colour, and without possessing a fragrance which is no small recommendation. The variation in colour is now extended, for to the white-flowered type, and Princess Alexandra, and the pink-flowered Princess Royal and Princess Helena, we have to add the striking novelty now represented, in which the blossoms are of a glowing orange-scarlet. This fine plant was raised by Messrs. Veitch & Sons, of Chelsea, and was shown at South Kensington early in March of the present year, when it was awarded a first-class certificate. The plant, which was raised between Princess Royal and Lobbi, is of the neat habit peculiar to this race. The leaves are elliptic, glossy, and coriaceous, about 2 inches long. The flowers grow in terminal umbels of from nine to twelve together, and have a comparatively slender curved tube 2 inches long, with an expanded limb of nearly equal obtuse segments, of a rich orange-scarlet

colour. It is, indeed, a gem of the first water, and thrives under the treatment usually given to *R. jasminiflorum*, that of a warm greenhouse."—(*Florist and Pomologist*, 3 s., vii. 145.)

PEACH—*The Barrington*.—"It is the one variety that is almost indispensable in the smallest collection. After the glut of the mid-season varieties, such as *Nehlesse*, *Royal George* and *Bellegarde* is past, then we find out the merits of this grand Peach, for were it not for the *Barrington*, a blank would almost ensue; with it, however, the supply is kept up till the *Late Admirable* and others come in. Moreover, as regards our exhibition-tables, the most magnificent dish of Peaches to be generally seen there is the *Barrington*. Like all other good fruits, the *Barrington* Peach has many synonyms. It is known as the *Buckingham Mignonne*, also as *Colonel Ansley's*. A few years ago it received another, having been exhibited before the Fruit Committee of the Royal Horticultural Society by Mr. Knight, of Halesham, Sussex, under the name of *Markly Admirable*, when from the wonderful excellence of its quality, and its fine appearance, it was awarded a first-class certificate as a new variety. This notion was, however, upon closer investigation dispelled by Dr. Hogg, who proved beyond question that it was nothing more than the true *Barrington*."—(*Ibid.*, 157.)

GRAVELLY HILL, BIRMINGHAM.

THIS place is the residence of J. Wright, Esq., and is about a mile and a half from Aston. The grounds are small, but beautifully situated, and well kept. There are beds of *Rhododendrons*, which are kept in good health by frequent waterings, and they must be very beautiful when in flower. The grounds also contain some nice specimens of the fine yellow-leaved *Holly* named *Lord Errington's*; but it was to see the *Orchids* that my visit was made.

There are three houses devoted to their culture. One for cool *Orchids* contains some healthy specimens. *Masdevallia Harryana* is here, as everywhere, the freest-flowering species yet introduced, and also the most beautiful. There are some of the varieties not so good as others, but the worst of them are well worth growing. One has very large flowers, and the colour lasts well, which is not the case with some of them. *Odontoglossum crispum*, in variety, is also very effective. The next house is for East Indian *Orchids* and all those requiring a high temperature, and here the same degree of health is not observable as in the cool department. The reason for this was soon apparent after a short investigation. All the *Vandas* and *Aërides* had been repotted last year in fresh sphagnum, and shortly after this was done an undesirable parasitical growth appeared at the base of the plants, and spread rapidly over the whole house. Specimens of this, which are kidney-shaped, and not larger than Turnip seeds, yellowish brown, and of a hard substance, were submitted to the Rev. M. J. Berkeley, and recognised by him as *Sphaerobolus stellatus*. The aerial roots formed above the sphagnum are attacked as soon as formed, and rot immediately. The only remedy for such a state of things would be to shake the plants out of the pots, and burn the potting material, using fresh pots, drainage, and sphagnum. The house would also require to be thoroughly washed-out with scapy water, and the walls lime-washed. Some of the plants attacked are of great value; amongst them are a large specimen *Saccolabium guttatum*, *Aërides Schröderii* with two growths and thirty-eight leaves, *Vanda suavis*, &c. In the Cattleya house I noted a fine *Broughtonia sanguinea* in flower, and being of a purplish crimson colour the flowers are distinct, and very effective in a collection; they are borne in clusters on stalks 18 inches long.—J. DOUGLAS.

PRESERVING THE PERFUME OF FLOWERS.

THE season is advancing fast for *Roses*, and the wind will scatter their spent petals and those of other flowers in all directions over lawns and walks, giving the gardener a great deal of trouble. I write to remind your readers that if they were to look over the flowers every morning when dry, and pick-off those most advanced in decay, they might preserve the petals of any flower which has an agreeable perfume by placing them between thin layers of cotton wool, dipping these into the finest olive oil, and sprinkling a small quantity of fine salt on the flowers alternately until an earthen or wide-mouthed glass vessel is quite full. Tie the top close with a bladder, and place the vessel in a south aspect exposed to the heat of the sun, and in fifteen days when opened a fragrant oil may

be squeezed away from the whole mass, little inferior, if *Roses* are made use of, to the dear and highly-valued otto or attar of *Roses*.—J. H., *Gardener, Bickley, Kent*.

[Your offer is accepted, and obliges us.—EDS.]

ALPINE ROSES NOT RHODODENDRONS.

AS no doubt many of your readers are meditating a journey to this delightful country (Switzerland), let me submit to their notice a correction of the prevalent popular error of calling the *Rhododendrons* Alpine *Roses*. A short time since a correspondent of the English-Swiss paper, "*Continental Herald*," stated therein that the real Alpine *Rose* was the *Rhododendron ferrugineum*. Upon which I addressed the following letter—

"Allow me to inquire upon what authority your correspondent states (as mentioned in your Monday's paper), that the *Rhododendron ferrugineum* is the true Alpine *Rose*. It does not even belong to the *Rosaceæ* family, but to that of the *Ericaceæ*. The calling it by this name is a mere popular error, as it is not a *Rose* at all. I have certainly seen at Sils Maria in the Engadine on a sign-board the *Rhododendron* painted, and underneath the words 'Alpen *Rose* Hotel.' This is all the authority I know. The real Alpine *Rose* is *Rosa alpina*, a very different flower. A specimen gathered here is enclosed. *Rhododendron ferrugineum* is very common in this neighbourhood (Chamouni), and among the Alps generally, and now coming into blossom. *R. hirsutum* is a brighter plant, but not so common. I have found it on the Wengern Alp, and it is also at the Gemni.—EDWARD COPLAND."

This elicited the following reply—

"The *Rhododendron ferrugineum* is certainly, as Mr. Copland asserts, not a *Rose*; but its beautiful flowers are known as 'Alpine *Roses*.' This is not from any resemblance to the *Rose* properly so called, but owing to the red colour of the flowers. Mr. Copland talks of a 'mere popular error,' as if the connection of the *Rose* with the *Rhododendron* was an error of modern date. Is he aware that his popular error originated in ancient Greece, when its poets adopted the word *Rhododendron*—a compound formed of *rhodon*, a *Rose*, and *dendron*, a tree, and thus *Rhododendron* signifies a *Rose* or *Rose-bearing tree*? But if we go farther and search for the derivative of the Greek word *rhodon*, we find that it means red; and so it is probable the original Greek meaning of *Rhododendron* was the Red Tree. There are many flowers and trees to which the term '*Rose*' is attached, but which no one—not even the simplest child—would mistake for veritable *Roses*. The '*Rose of Sharon*' is the popular name given to the gorgeous *Lily of Palestine*; and the probability is that the appellation has descended from a more remote era than even the days of Solomon, who 'in all his glory was not arrayed like one of these.' The *Rose of Sharon* bears no resemblance to the real *Rose*: the name originated in the red colour of the flowers. In England a common garden flower is popularly known as the *Rose Campion* (*champsagne*?), simply because it bears red flowers. Many similar instances might be adduced. The impropriety fades away if we will only consider the word '*rose*' to mean red, a colour connected with *Roses* in every oriental country. I only know two instances where *Rose* is not connected with red—viz., in the common *Hellebore* or Christmas *Rose*, and the *Guelder Rose* or *Snowball Tree*. The *Rosa alpina* is Alpine *Rose* of course, but it is not the Alpine *Rose*. To use the language of Obadiah in the play, I would say, 'Thy name may be Prim, but these art not that Prim!' The *Rosa alpina* is a mere botanical modern term to distinguish one of the numerous *Eglantine*s that grace the Alps. It has no affinity with the flowers of the *Rhododendron*, the only shrub whose blossoms are known in Switzerland and elsewhere as Alpine *Roses*.—T. H. DIXON, LL.D., *Member of the Swiss Alpine Club, &c., Lausanne*."

To which I rejoined—

"I am glad to have to meet such a learned opponent as Dr. Dixon, for I have no doubt he brings forward all that can be adduced in favour of that which I still term 'a mere popular error.' I can hardly call him an opponent, for he virtually admits what I have advanced. I asked for some authority; he gives none, but says I talk as if it was 'an error of modern date.' I do no such thing, for I am quite aware that it has long existed, and he may be right in saying 'it is probable it originated in ancient Greece,' and was caused by a poetical corruption (adoption) of words. I do not dispute that *Rhododendron* may mean the Red Tree, but that is very different from Alpine *Rose*. He quotes other popular errors, just as if two wrongs could ever make a right. I freely admit that there is a common garden flower in England called *Rose Campion*, because its colour is red, but that is altogether another thing to its being called a *Campion Rose*. The introduction into this discussion of Obadiah and the play borders on the ridiculous. It has about as much to do with it as the caricature of Obadiah and his wife. I therefore still contend with all due deference to the learned member

of the Murithian Botanic Society, that *Rosa alpina* is the only real Alpine Rose having a right to that name, and I deny that it is a mere modern botanical term. The worthy doctor can take us back to ancient Greece, but I think it will puzzle him to say when this pretty flower was first so named: I should rather think 'whereof the memory of man is not to the contrary.' In conclusion, I hope he will excuse my referring him to 'Wood's Tourist's Flora' for an accurate description of both these interesting plants.—EDWARD COPLAND, *Chamonix*.

The great interest of the subject to Swiss travellers must be my excuse for thus troubling you.—EDWARD COPLAND, *Hotel Mont Cervin, Zermatt*.

CALIFORNIAN BULBS.

In reply to your correspondent "G. S.," asking about the hardness, &c., of these bulbs, I can inform him and your readers that they have grown in the open ground at the York Nurseries for the last two years, and have not suffered in the least either from frost or rain. These bulbs in their native habitats are accustomed to be dried to such an extent that I understand the collectors to say that when collecting them the dust almost blinds them. This, of course, is after their growing season is over, for during that season they get abundance of wet. It was feared that these bulbs would suffer quite as much from our wet and dropping summers and autumns, but so far they have succeeded admirably. They are planted in light sandy loam prepared with well-decomposed manure. It is a good plan to dig the manure deep down quite below the bulbs instead of allowing it to surround them. They are planted from 3 to 4 inches below the surface.

I will now proceed to give a list of species I saw growing there, as above described.

Cyclobothra alba, *C. pulchella*; *Calochortus luteus*, var. *oculatus*, is an extremely handsome species, producing large golden-yellow flowers, with a purple-crimson blotch near the base of each petal. *Calochortus venustus* is white, with a dark blotch near the base of each petal. *Calochortus Gunnisoni*; *C. elegans* is an interesting species, about 6 to 9 inches high, flowers bluish white, beautifully fringed; *Brodiea coccinea*, *B. terrestris*; *Senbertia laxa*; *Allium cernuum*, *A. uniflorum*, *A. acuminatum*, *A. falcifolium*; *Erythronium giganteum*—this Dog's-tooth Violet thrives the best planted in a compost of one-third loam, one-third peat, and one-third river sand.—R. P.

DELPHINIUM FELIX POULET.

I MAY, perhaps, have casually noticed this fine border plant before, but it is certainly worthy of more prominence than it has received. The whole family of Delphiniums are beautiful, rich, and stately border plants. There are, no doubt, many fine varieties of this family that I am not acquainted with, but if any one of them is more strikingly attractive than that above-named, all I can say is I should like to see it. Felix Poulet was received from the nursery of Mr. Van Houtte, of Ghent, and is one of the best hardy plants ever sent across the water. It is a pillar of pure and dazzling blue, 7 feet high, with a spike as symmetrical as that of a first-rate Hyacinth. It is just one of those flowers that act the part of a garden magnet, drawing all eyes to itself. Standing amongst a dozen varieties it kills all by its clear intense colour. Those who have room for even only a few herbaceous border plants should never forget Delphiniums, and of them I advise them to especially remember Felix Poulet.—J. W.

CUCUMBER DUKE OF EDINBURGH.

As the grower of the Cucumbers sent to the Royal Horticultural Society (see page 53) by Messrs. Barr & Sugden as Messrs. Daniels' Duke of Edinburgh, and said to be the Marquis of Lorne, I can say there is a great difference between the two varieties. I have grown the Marquis of Lorne for two seasons before, and have it now; and I find the Duke a very free-fruited kind, which I cannot say the other variety is, and it is much larger. The Cucumbers sent were not grown one to a plant on purpose to be exhibited, but were all cut from one plant bearing other smaller fruit. The largest of them, although only 2 feet long, weighed 3 lbs. 8½ ozs.—T. REDLEY, *Cambridge*.

DAMP WALLS.—Mr. Robson can effectually cure damp walls, or, at any rate, the paper will not become discoloured, by covering the places affected with thin lead paper, the kind

generally used for lining tea-chests. The paper-hangers usually keep it in stock.—R. M.

PLANTS FOR THE SHADE.

How often we hear the complaint that our garden is so shady that we can grow nothing in it. To all these I would say, Grow hardy Ferns. They are not only easy to manage, but the diversity in the forms of the leaf to lovers of nature must afford as much pleasure as the most gaudy-painted flower. They can be planted in beds, lines, or clumps; and if a little attention is paid to the various heights of the leaves, &c., they will make quite as effective a show as Geraniums or Verbenas. With the aid of stones, mounds of rockwork can be formed, and when planted with Ferns have a very pretty effect. Many of them being evergreen can be grown in pots for window decorations during the winter, and not being so susceptible to the changes of the atmosphere often succeed better, and give more satisfaction than plants costing double their price.

Hardy Ferns are not at all fastidious as to the soil they grow in, being as often grown in one kind of soil as another; but they succeed best in light woodland soil or leaf mould, mixed with one-fourth sand, where they are planted as a permanency. The large-growing varieties should have at least 1 foot in depth of soil, and when wanted for winter decorations should be grown in well-drained 4, 6, or 8-inch pots all the summer. And among the hardy Ferns I know of none more suitable, or indeed more beautiful than our own native Ferns. A list of a few of the most popular for the purpose mentioned I give below, which are often to be found in our summer rambles:

Adiantum pedatum (Maiden-hair Fern), with its stems of rich dark brown colour, 1 foot in height, its fronds of spreading habit radiating like the spokes of a wheel almost circular.

Dicksonia punctilobula (Feather Fern).—It is among the most imposing of our native Ferns, its leaves often reaching 3 and 4 feet, and looking not unlike a feather dusting-brush in shape.

Cystopteris bulbifera, with dark brown stems and rich glossy green foliage, rising some 2 feet, and resembling the *Dicksonia* in growth.

Osmunda cinnamomea (Cinnamon Fern), in full time has rich brown masses of fruit, and its leaves, with distinct veinings, reach 3 to 5 feet when fully grown, and it is as often seen growing in the strongest sunlight as anywhere else.

Campylosorus rhizophylla (Walking Fern).—One of the most interesting of the family. The fronds, as they grow, taper into slender prolongations, which droop and touch the ground, and take root at the apex, from which another plant springs.

Polytrichum fumarioides (Copper Fern).—Rising some 4 to 6 inches in height, of a copperish red colour, the stems and leaves being of the one shade.

Lygodium palmatum (Hand Fern).—A most beautiful climbing Fern, with small leaves about 2 inches in diameter, resembling the open human hand. Succeeds best when grown in hanging baskets.

Aspidium acrostichoides.—Of a spreading habit; its fronds usually grow from 1 to 2 feet in length, of a dark glossy green, and it retains its colour all winter out of doors.

Polypodium vulgare.—Somewhat resembling the above, but not so compact in its growth—its leaves more upright, rising only 1 foot, of a rather pale colour.

Asplenium ebeneum.—This Fern is said to be found all over the north temperate zone; and though small is very pretty. Its fronds rise about 1 foot in height, of a bright green; its stems of a glossy black colour.

Asplenium Trichomanes.—A variety of the above, with even smaller fronds, and more difficult to cultivate.

The various kinds of Hydrangeas, Cannas, Pansies, Mimulus, Coleus, &c., will all do well in a shady or half-shady position. I have also had a bed of Vincas flower fine the whole season, where they did not get more than one hour's sun in a day. *Panicum variegatum* shows to best advantage when grown in the shade, as do also the different varieties of *Tradescantia*.—(*American Gardener's Monthly*.)

CONFERENCE ON THE REGISTRATION OF PERIODICAL NATURAL PHENOMENA.

THE Council of the Meteorological Society recently resolved to organise a system of observations of natural phenomena, connected with the return of the seasons, as well as of such branches of physical inquiry as tend to establish a connection between meteorological agencies and the development of vegetable life.

As a preliminary to carrying out this intention, they invited the various societies before which such subjects most naturally come, to nominate delegates to join a committee by whom the whole question as bearing upon agriculture, horticulture, &c., should be considered, and to whom also any written communications should be submitted.

The first meeting of this joint committee was held at the office of the Meteorological Society, 30, Great George Street, on Thursday, July 2nd, when delegates were present and promises of co-operation read from the Royal Horticultural, Royal Botanical, Royal Agricultural, and other Societies. After the subject had been fully discussed, the Rev. T. A. Preston, of Marlborough College, was requested to prepare a list of plants to be observed, and also to draw up a report on the same. Other gentlemen were requested to prepare lists of insects, birds, and animals.

PASSIFLORA CÆRULEA, THE COMMON BLUE PASSION-FLOWER.

We most willingly afford all the information we can obtain in reply to the inquiries of our correspondents; but "G. H."



Fig. 24.—*Passiflora cærulea*.

will appreciate that we could not "describe the Passifloraceæ," for the descriptions of the more than two hundred species would occupy most of the pages of one number of our Journal. However, as our correspondent (a lady) concludes with a more moderate request, we will reply to that fully.

The *Passiflora cærulea* was introduced by the Duchess of Beaufort, living in 1699. It was called the "Passion-Flower" by the Roman Catholic settlers in Brazil, who first became acquainted with the flower; for they appropriated its various parts to a symbolism of our Saviour's last sufferings—the circle of filamentous processes of the nectary within the

corolla, they said, represented the crown of thorns; the nail-shaped styles the nails of the cross, and the five anthers the five wounds of the crucifixion.

To propagate it you may now layer some of the young shoots, or next spring you may make cuttings of this year's shoots, or, which is the best mode, of pieces of the roots. To make it bloom freely, train the young shoots at full length, and in October of each year cut them back to within two joints of the older branches. Cover them in frosty weather, and they cannot fail. They are free bloomers after attaining three years of age. If the cuttings are taken from an old plant in April, they will produce flowers the following autumn in good soil against a south wall.

It is quite true, as you were informed, that you can raise this Passion-Flower from seed. In April place it for eight or ten hours previously in water about 90°, then sow in light sandy earth, and plunge the pot in a hotbed. When 2 or 3 inches high, pot the plants off separately, and place them in the bed; harden them after a week by giving more air, and by-and-by place them in a window or greenhouse, protecting them through the winter for the first year or two. If no hotbed, wait until April, soak the seed, sow as advised, cover the pot with a square of glass, and keep the pot not far from the fireplace until the plants are up, but taking them to the window afterwards.

DESTROYING WASPS.

NEVER was such a year for wasps' nests as this—at any rate in our neighbourhood. We find a most efficacious mode of destroying them to be this: Obtain a quart bottle half filled with turpentine, insert the neck in the wasps' hole late in the evening, and by the morning every wasp will be killed by the fumes. Of course for this mode to be successful the nest must be in the side of a bank.

Another mode, and equally efficacious, is to pour gas tar down the entrance.—H. W. S. C., *Ross, Herefordshire*.

The most simple and effectual mode of destroying wasps I have found is to put a little gas tar into an old watering pot, and after it is dark pour about a pint into their hole, and they will never come out again. "T. G.'s" plan may do very well if their nests run in a horizontal direction, such as in an old wall or bank; but even in this case, if you put the spout of the watering pot in the hole, and place a sod or a lump of clay round it, the tar will find its way to their nest; but as a rule we find the nests in a perpendicular direction.—O. ORPET.

NOTES AND GLEANINGS.

MR. STANDISH, of Ascot, who has for some years given his attention to improving the varieties of the GARDEN PEA, has succeeded, after careful and patient crossing, in raising a number of sorts which promise to be of great utility. One especially, which is called *CRITERION*, is well worthy of notice. It grows about 3 feet high, and has a pod similar in size and shape to Laxton's Supreme, and remarkably closely filled. The shells of the pod are very thick and fleshy, which enables them to withstand extremes of heat and drought better than others which have not this qualification. The colour when cooked is of a fine lively grass green, and the flavour very rich and sweet, while the texture is very delicate. We have tasted and examined this Pea, and consequently speak from experience when we say that, in addition to its other merits, it is a fortnight earlier than *Ne Plus Ultra*, and will be one of the most valuable Peas in cultivation.

—A good plant of *ARUNDO CONSPICUA* now in bloom in the garden of Mr. G. F. Wilson, of Weybridge Heath, reminds us that this noble Grass is not so much grown as an ornamental plant as it ought to be. The plant in question is like a great mass of Pampas Grass, and it has thrown up fifty-four panicles of flowers, the graceful drooping form of which is very beautiful. This plant blooms in summer, while the Pampas Grass flowers in autumn. Those, therefore, who are admirers of the Pampas Grass may have the same effect produced in their gardens in summer by planting the *Aruno conspicua*.

RUSTIC SUMMER HOUSE.

We have been asked to tell a correspondent, "R. H.," "the most desirable form of rustic summer house," and we are just as incapable of replying as the clergyman was when an un-

known writer asked, "What woman would you recommend me for a wife?" We reply as to the summer house what we published long since. Rustic structures are pleasing in reclusive portions of the pleasure ground, if this style be confined to the

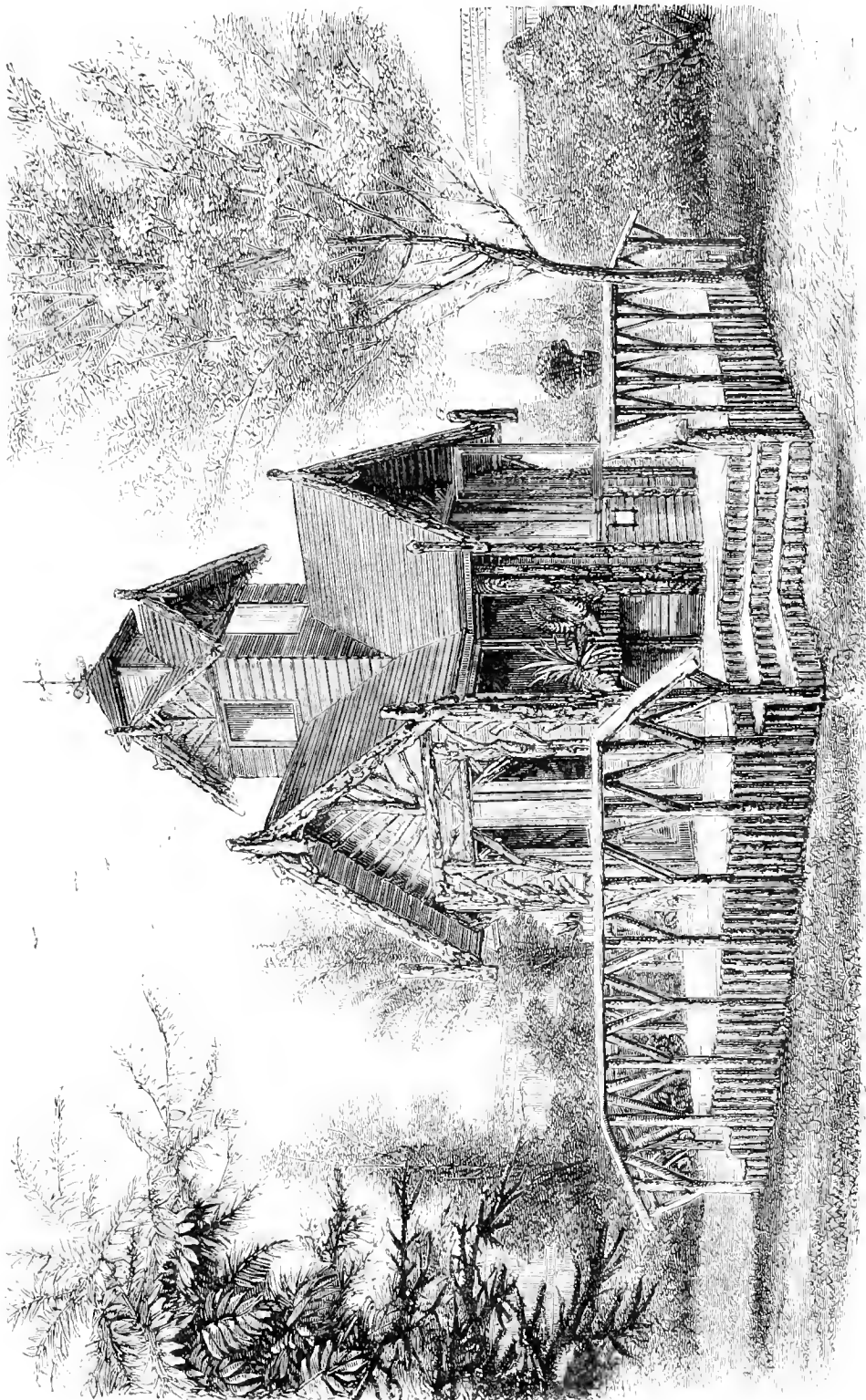


FIG. 25.—A RUSTIC SUMMER HOUSE.

formation of either a seat or a cottage; but it is ridiculous if complicated, and elegant forms are constructed of rude materials. Thus we have seen a flower-box, intended to be Etruscan in its outlines, formed of split hazel stakes—a combination of the rude and the refined, giving rise to separate trains of ideas totally unassociable.

If our correspondent has a well-wooded, retired place in his garden, and that garden is moderately extensive, he may appropriately erect there a rustic structure such as that of which we now publish a woodcut, (*fig. 25*), and for advice relative to which he may apply to Mr. J. Caven Fox, Royal Horticultural Society, South Kensington.

NOTES ON VILLA AND SUBURBAN GARDENING.

Budding Roses.—The objects contemplated should be well understood before the work is begun. If it is intended only to make the performance subservient to the production of standards, then I would suggest the inquiry whether in the locality standards are desirable or not. A blind passion for a Rose tree with a tall stem and heavy head has been very prevalent of late years, and has often been indulged without regard to good taste or appropriateness. Now, it appears to me, that in itself a standard Rose is not so elegant as a common wall-trained bush, or a plant grown in the pillar fashion. A leafless stem requiring a strong stake for its support, as all standard Roses do, has certainly nothing of beauty or ornament in it, while a Rose growing on its own roots and trained pyramidally to the height of 5 or 6 feet, is a magnificent object when in bloom. We commonly see in small gardens a lanky Briar or two springing up from a lawn and making us wonder what such wild unsightly things can do there, till on inquiry we are told that the proprietor intends budding on them at the proper season. Now, in such cases, there are two chances to one that the budding does not succeed. If it succeeds, it will take two or three years to form a head; and when a head of first-rate character is produced, the whole affair does not embellish the garden half so much as a pillar Rose would have done, in some cases, in the course of one season. Standard Roses are only useful and desirable when a display is required above the heads of more lowly plants, and in such cases they may be introduced with fine effect. An avenue of standard Roses may be made a fine object when there is a good undergrowth of small productions; or single standards may be introduced with advantage when space is limited, since they allow of flowers being grown underneath. But even when standards are clearly desirable, the amateur should remember they ought to be placed in a finished state in the spots they are intended to occupy.

So much in reference to standards. But budding has other objects and higher claims upon our notice. It confers a hardiness upon Roses otherwise tender, so that many which would not endure our winter on their own roots, will resist it when receiving into their structure the more vigorous juices of the Briar. Then a more rapid attainment of the flowering state is in this way secured. For example: A friend gave me a cutting of the beautiful Bourbon Rose Paul Joseph in the month of August last year. I had only a choice of two courses to pursue with regard to it; one was to endeavour to make it produce roots as a cutting, the other to bud it upon a stock. Had I taken the first course it would probably have perished, as cuttings of fine Roses demand much skill for successful striking, and if it had lived it would scarcely have been strong enough to produce flowers in twelve months. I adopted the second course, and inserted the only two buds I had into a climbing Rose, which I cut down for the purpose. In June these buds were half a yard long, have produced flowers, and supplied me with buds enough to insert in about a dozen Briars. Expedition and certainty are therefore attained by budding, and on these accounts the art is highly important to all amateurs.

Greenhouse Pelargoniums.—Among the plants which now require attention preparatory to another season, Pelargoniums by almost universal consent claim the first place, for there are few persons who do not admire them, and not many plants which are more worthy of admiration. It may be said there is little skill required in growing a Pelargonium, and this may be true, but there is some little art in producing them in that style of excellence which is characteristic of the plants exhibited at the horticultural fêtes in the neighbourhood of the metropolis. It must be admitted that while there are plenty of gardeners who can produce luxuriant specimens, we have but few cultivators who can procure a head of bloom commensurate with the size of the plants. The reason of this is that in our desire to grow plants we lose sight of an important physiological law—namely, that whatever conduces to luxuriant growth is favourable to the production of flowers, and *vice versa*, and hence prize cultivators never allow their plants to become what they term "autumn proud"—that is, gross and luxuriant at that season. They keep them, by potting them in poor soil and supplying them moderately with water, in a healthy but no means luxuriant growing state. The effect of such treatment is the production of a great quantity of active roots and the storing-up of sap in a highly elaborated state, which, being brought into action by the increased light and heat of spring, is expended in the production of flowers instead of branches.

This is the theory of the cultivation of the Pelargonium exemplified in the best management of cultivators. To apply it

to practice, the plants that have done flowering must be turned out of the house and placed in the full sun under a south wall to ripen their wood previously to being cut down, and it will be well at the same time, if seed is not desired, to remove the whole of the flower-stems, but retaining as much of the foliage as possible. In cutting the plants down the amateur must be governed by circumstances, such as the size of plants he wants in the coming season, and the convenience he has for large specimens. As a general rule I would never recommend the growth of large specimens. Small ones in 32 or 21-sized pots are far more interesting, and there is as much merit in producing them as those of a larger size—that is, if grown as plants ought to be, with the branches depending over the sides of the pot. Some importance has been attributed to the quantity of old wood left in a plant at the time it is cut down, but the advantage of having a quantity of wood is, I think, to a considerable extent imaginary, though it cannot be doubted but it is a reservoir of nourishment for the branches in ease of need.—W. KEANE.

DOINGS OF THE LAST AND PRESENT WEEKS.

HARDY FRUIT GARDEN.

The soaking rain which has been highly beneficial to flowers and vegetables has also produced good results on the fruit trees. So thoroughly dry had the sub-soil become, that Cherries shrivelled prematurely and readily parted from the stalks. Some of the earliest Pears and Apples have also dropped off mature, but they cannot be said to be ripe, as flavour is wanting. We have not managed to finish the summer pruning of dwarf and pyramid trees; usually they have been pruned much earlier, but it is a question whether it is desirable to prune them very early in the season, except when the trees are young, in which case the young growths may be stopped when they are long enough, so that a second, and, if the trees are vigorous, even a third set of growths may be produced. Trees treated in this way increase in size much more rapidly than those not summer-pruned. We have not yet succeeded in getting rid of the Apple maggot; a small proportion of the fruit seems to be attacked by it. There is no better way than to look over the trees and pick off all fruit that contains maggots, and all that falls should be gathered up daily and destroyed. This has been our way of dealing with the enemy, and so far it has been satisfactory.

It does not seem to be of much use growing Cherries on pyramids; the fruit sets and ripens very well, but the starlings have such a fancy to them, that unless the trees are securely netted, which is a very troublesome affair when large, we do not gather any ripe fruit, as it is all gone long before the last stage of ripeness has been reached. On the walls netting the trees is easy; the nets are merely nailed to the top and base of the wall, and stretched out by forked sticks 15 inches long.

Strawberries have not been large, as the best fruit was destroyed by late frosts; the crop has been excellent, and has kept well. The fruit gathered for preserving was in capital condition; Black Prince and Queens' Seedling are the sorts esteemed here for that purpose. Frogmore Late Pine cannot be too highly recommended for dessert purposes; of course it is Pine-flavoured and slightly acid, but it can be had after British Queen, Dr. Hogg, and other fine sorts are over. It is also a large fine-looking fruit. All the runners were layered by the 12th of the month; these have also been abundantly produced.

Raspberries.—Where a thicket of suckers had been thrown up they have been thinned out; it cannot be good policy to allow the young growths to smother each other during the growing season, to be thinned out in winter. Better to grow only as many canes as will be required for next year's crop, so that all the growing force of the plant may be usefully employed. Keep the ground free from weeds, and bear in mind that the Raspberry loves a deep rich soil and delights in moisture.

FRUIT AND FORCING HOUSES.

Vineries.—The early houses have been cleared of fruit, and as the ascending sap is not required by the bunches, lateral growths are freely produced; these have been stopped-back, and any other growths will be stopped at once. The leaves of the Vines, the walls and woodwork of the houses, have also been thoroughly washed with the garden engine. However carefully the Vines have been attended to, there is always a trace of red spider on the leaves, which multiplies very fast if it is not washed off. The weather was exceptionally hot at the time that Lady Downe's Grape was liable to scald, but owing to thorough ventilation only one or two berries on some of the bunches were scalded. During hot dry weather all late vineries, whether containing Muscats or not, should be well ventilated in the day, and the ventilators be left open a little at night. But as regards fire heat, our experience, gained north of the Forth in Scotland, and on the banks of the Thames in England, leads us to recommend the use of the heating apparatus in the north, and to dispense with its use in the south all the time that the Grapes are colouring. Even in unfavourable seasons

Gros Guillaume and Muscat of Alexandria have ripened perfectly with us in Essex, though no artificial heat was applied after the fruit was set. Mrs. Pince's Black Muscat ripens and finishes off well treated in a similar manner. At present, while the Grapes are colouring, the temperature of the houses, with air on at night, may fall to 65°, or in cold nights to 60°; but it is only for an hour or two, as the sun has an effect on the glass until late in the night, and is again having an influence on the temperature before five o'clock in the morning.

Peach House.—Whether there is any truth or not in the statement that the average heat of our summers is lower than it was twenty or thirty years ago, is a matter that may probably be ascertained by actual research. Certain it is that the crops of the finer stone fruits are much more uncertain than they used to be, those of Peaches and Nectarines especially so. Out of doors there is much difficulty in keeping the trees clean. Aphides and red spider are persistent in their attacks, and cannot so easily be overcome outside as they can under glass; and then the uncertain climate—rain, snow, or hail, and a freezing east wind. Not only in the "merry month of May," but even in June, doth the ice king hold sway. Under glass the trees are safe; light and air can be admitted to them at all times, and should the weather be dull and cold when the trees are in flower, artificial heat can also be applied. Free healthy growths are made one season, which will in due course produce well-developed blossoms the following year. The same treatment is necessary with early Peach houses as with early vineries: thoroughly cleanse the leaves from red spider, and dust with the syringe or garden engine. Indeed, the treatment throughout is so much alike that a good Grape-grower will also be a good grower of Peaches.

PLANT STOVE.

Potting and re-basking a large proportion of the Orchids. *Phalenopsis grandiflora*, *Schilleriana*, and *amabilis* are the most showy of the species, and should not be omitted from the most select collection. They are grown either in pots or baskets, and thrive best when the potting material consists only of growing sphagnum and potsherds. The most shady position in the house, and a moist warm atmosphere, are the conditions most favourable to their full development. During hot dry weather syringe freely at least every day. Many persons who grow Orchids are afraid to use the syringe. There are many species, of course, that would be much injured if subjected to continuous syringing, even during the summer months, notably *Vandas*, *Acrides*, *Saccolabiums*, many of the *Cattleyas*, and other allied genera; but during such hot dry weather as we have recently experienced any of the species would be benefited by being dewed overhead in the forenoon, so that the plants would be dry by the time the house is shut-up. *Cattleyas* that were potted required different treatment, but the major proportion of the species succeed best in pots filled three parts full of drainage, and in a compost of equal parts of turfy peat and sphagnum moss. Most of the smaller-growing species do best in baskets or on blocks; a few even of the larger-growing species succeed better in this way. *C. Dowiana* hung up in a basket or fastened to a block of wood will grow and flower freely; the same may be said of *C. superba*, which also requires more heat than some of the others. We had imported specimens of this fine species, which failed to give satisfaction when potted like *C. Mossiae*, *Warneri*, *Mendelii*, &c. After being shaken out of the pots and fastened to blocks of teak they are doing very much better. Then take *Dendrobiums*: Some of the species will not thrive unless they are potted in a good body of turfy peat and fresh moss; others would linger on a miserable existence under such treatment, and ultimately perish. We have potted *D. formosum* and *D. nobile* in the same way; the one made vigorous growths, and the other died; placed in a basket with very little material for the roots, the plants grew and flowered freely. *D. McCarthyi* makes the strongest growths when there is little else besides the basket for the roots to cling to. *Vandas*, *Saccolabiums*, *Acrides*, &c., have been potted in crocks, with a little fresh sphagnum near the surface mixed with them, finishing off the surface with live sphagnum. After the plants have been potted and basketed it is best to maintain a moist warm atmosphere for a few days, keeping the house rather close.—J. DOUGLAS.

TO CORRESPONDENTS.

* * It is particularly requested that no communication be addressed *privately* to either of the Editors of this Journal. All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably.

We also request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Books (W. J.).—London's "Hortus Britannicus," cannot be had in parts. Messrs. Longman & Co. are the publishers.

ROSE BUDS, &c. (*Nannie*).—They are sun-scorched. Thin the Grapes. Cut the Vine branches back to half their length.

DOUBLE PANSY (*R. Allan*).—The colour, rich dark purple, and the very double flowers, render it a desirable variety.

BLACK HAMBURGH GRAPES (*Silas Gange*).—The box and its contents were smashed flat, and not a caterpillar to be detected. Send again in a tin or wooden box.

VINE LEAF RUSTY-PATCHED (*J. S.*).—We can detect no indication of injury by a caterpillar. The brown patches are caused probably by deficient air-moisture.

SUSSEX ANCHOR HOOK (*Capt. B.*).—The maker is Mr. H. Hudson, Hayward's Heath, Sussex.

JOURNEYMAN GARDENER (*F. C.*).—The paragraph in London's "Encyclopedia" which you require is as follows:—"The period of apprenticeship being finished, that of journeyman commences, and continues, or ought to continue, till the man is at least twenty-five years of age. During this period he ought not to remain above one year in any one situation—thus, supposing he has completed his apprenticeship in a private garden at the age of twenty-one, and that his ultimate object is to become a head-gardener, he ought first to engage himself a year in a public botanic garden; the next year in a public nursery; that following, he should again enter a private garden, and continue making yearly changes in the most eminent of this class of gardens till he meets with a situation as head-gardener. The course to be followed by an apprentice intended for a tradesman-gardener is obvious; having finished his period in a private garden, let him pass through a botanic and nursery garden, and then continue in the most eminent of the class of public or tradesmen's gardens to which he is destined."

GERANIUMS FOR POT-CULTURE (*N. E.*).—Thomas Speed, Virgo Maria, M^r. Rendatler, Corsair, Ianthe, Lago, Rose Rendatler, Madame Mezard, Madame Rudersdorf, Miss Rose Peach, Warrior, and Eugénie Mezard.

SALPIGLOSSIS CULTURE (*Flycatcher*).—It is a curious and showy half-hardy annual, requiring to be sown in a hotbed early in April, and planted out in good rich light soil in May or early in June. You may now pot-off the plants singly, or two or three in a pot, in light loam and leaf soil or well-rotted manure, shading for a few days, and when the pots are full of roots shift into 7-inch pots for flowering. Keep the plants well supplied with water, and they will flower in the greenhouse in a light airy position at the end of summer.

VINES WITH FRUIT ON LATERALS (*A Subscriber*).—It is not good practice to allow fruit on other than the first shoots of the Vine; those on the laterals should be removed, which they would be if the laterals were stopped at the first joint or leaf, and the subsequent growth from them also stopped at its first leaf, and this throughout the season. The shoots of Vines on the short-spur or one-rod system should be stopped at the joint beyond the fruit, and any shoots, which are laterals, arising from these shoots or first shoots ought to be stopped at the first leaf, and each growth as produced stopped at the first leaf. The growth ought not to be confined to one joint only beyond the bunch, but each succeeding growth limited to one leaf. The mildew may have appeared on the Vines from a deficiency of air; but it may have another cause, as a wet and rich border, combined with too close and moist an atmosphere. It will not permanently injure the Vines, its progress, we presume, having been arrested by the application of flowers of sulphur. Admit air freely, applying gentle fire heat, and so secure the thorough ripening of the wood.

SPirea JAPONICA AFTER FLOWERING (*A Constant Reader*).—We should plant out in good, rich, rather moist soil, loosening the sides of the ball with a piece of wood; make the soil tolerably firm about the ball, and water well after planting and in dry weather. When the leaves have fallen you may take up the plants, divide the crowns if they are too large for the size of pot you wish to have them in, and keep them in a cold pit plunged in coal ashes to the rim until you wish to start them. A few pots introduced at intervals of three weeks from early in January to March will afford you a succession of flowers.

AZALEA LEAVES FALLING (*Julia*).—The leaves you sent us have the appearance of being scorched or injured by some solution. It would not be caused by the sulphur placed on the Vines, but if the sulphur was burned, or placed upon a hot surface so that fumes were given off, the Azaleas would be the first to suffer. It is hardly likely, however, that they alone would show evidence of injury without other plants in the greenhouse being similarly affected. An overdose of tobacco smoke would cause it, but we think the roots are not in a healthy state, and that the plants are dead at the collar.

CUCUMBERS DISEASED (*C. H. J.*).—The rind of fruit you have sent us is spotted and marked with an ulceration or gangrene, due in most instances to an over-rich moist soil, with a deficiency of bottom heat the shoots being crowded, so that the elaboration of the sap is very imperfect, and it finds outlet through the skin of the fruit. Thin-out some of the oldest and all yellow leaves, stop each shoot at the joint where the last fruit showing is visible, and afford additional bottom heat. If the heating medium is a dung bed, hue it, leaving a little air on at night for a few days after the application of the dung, and keep the atmosphere rather dry, the soil not so moist, watering only to keep the foliage from flagging, and we think you will soon be free of the disease. We could not distinguish the plant; the specimen sent us was destroyed by the post-office pouches.

MOLES (Y. T.).—The best mode of getting rid of these useful but annoying workers is to trap them; traps should be set in their main runs, or where they pass firm ground. You may free your flower beds of them by placing Elder leaves in the runs. The traps may be had of any ironmonger; if not in stock they could be had by order in a few days. Take them in the field; it is useless to endeavour to keep them from the garden so long as they exist in the field.

HEATING A SMALL GREENHOUSE (*H. W.*).—In your case we should prefer a hot-water stove boiler with hot-water pipes, and to keep out frost you will require a flow-and-return 3-inch pipe along one end and the front of the house. By a hot-water apparatus within the house you will utilise the heat of the stove, and it will only require attention after ten or more hours. You will see such stoves advertised in our columns. Write to one of those you think likely to meet your wants, stating what you require, and asking for an estimate.

BOX FOR HEDGEO (*Idem*).—The common round-leaved dwarf kind employed for edging beds and borders will in time form a hedge 3 feet high, but it does not grow nearly so quickly as the much-longer Tree Box, and that we advise you to procure.

GOOSEBERRY AND CURRANT CUTTINGS (A. P.).—The best time to take and plant cuttings of these is in November, or when the leaves have fallen. Both the Gooseberry and Currant will succeed trained espalier fashion, but the height ought not to exceed 3 to 4 feet for Gooseberries, and 6 feet for Currants.

EXCAVATION ON VINE LEAVES (J. M., M. D.).—If you abundantly water the roots in the inside border, and keep the air of the house moist, the excudation will not continue. Some Vines are exempt from the affection because they can endure drought.

ROSE-CUTTER BEE (Miss Allen).—We fear we cannot suggest any royal method for preventing the rose-cutter bee attacking your Geraniums. The only plan, and that will perhaps be a tedious one, is to watch the cutter bees to their nests, and pour gas far into their holes. They merely eat leaves, or as in this instance flowers, to line the side of their nest; but oddly enough, if once they begin on a particular leaf or flower, they generally continue to use the same kind of leaves or flowers for the rest of their nests.

ROSE-LEAVES BLOTCHED (Mrs. C.).—It is very rarely that Roses give good flowers with bad foliage. From your description your Roses seem to suffer from black mildew. Syringe with warm water with 1 oz. of soft soap to the gallon, and dust with flowers of sulphur while moist. Syringe again with clean water two days afterwards. Many of the leaves will fall, but you will have to secure a healthy second growth. Repeat if necessary.

CHERRIES ON A DOUBLE-BLOSSOMED TREE (G. A. M.).—It is very unusual, but will occur in any double-blossomed tree, in a flower (or flowers) that has returned to the normal single form.

SELECT GOOSEBERRIES AND CURRANTS (Laquirier).—Gooseberries—Red: Ironmonger, Red Warrington, Rough Red. Yellow: Early Sulphur, Ramballion. Green: Green Overall, Pitmaster Green Gage. White: Crystal, Snowball, and Whitesmith. Currants—Knight's Large Red, White Dutch, Black Naples.

VINES ATTACKED BY MILDEW (Firt).—Yours seems to be a bad case, and as you have no heating apparatus, it is not easy to destroy the parasite. However, there is no specific so sure as sulphur. You have done all that you can do now, except to ventilate freely both front and back. Insufficient ventilation is oftentimes the cause of mildew spreading. Dress the wood of the Vines in winter, after they are pruned, with the following mixture:—6 ozs. flowers of sulphur, 2 ozs. of soft soap, and half a pint of tobacco water to half a gallon of rain water, and add a little clay to thicken it; with this paint your Vines. See that your border is well drained, and also that the Vines do not suffer owing to want of water. It would do no good to plant young Vines.

GOLDEN CHAMPION GRAPE CRACKING (—).—This Grape should be treated in every respect as the Black Hamburgh until after the berries are stoned and have taken the second swelling, when the border should be kept drier, and a dry atmosphere maintained in the house. This is a grand Grape when well managed, but it has many faults.

VINES FOR SMALL VINERY (F. W. P.).—Three Black Hamburgh, one Dr. Hogg, and one Buckland Sweetwater.

VARIORS (E. M. P., Hampstead).—You may remove all the "unfruitful runners" from your Melons, and pinch off the tops of the others above the joint beyond where the fruit is setting. Leave the pruning of your Gooseberry and Currant trees till autumn. Your Strawberry plants will fruit next year. If you have need of the runners you may save them to make a new plantation, and if not, let them be removed.

LEAVES FALLING UNSEASONABLY (C. D.).—The fall of the leaves of your Robins and Silver Beeches is caused by the excessive drought. The fall of the leaves of other trees, especially of Limes, is similarly occurring. They have completed their year's growth, and consequently shed the leaves, whose "occupation's gone." If abundance of rain soon occur, it is probable that these trees will put forth fresh leaves, and be induced to attempt a second growth.

HEATING CUCUMBER AND MELON HOUSE AND STOVE (Hot Water).—You will need for bottom heat two pipes for each bed or border; but if you have them covered with drainage, and not in a chamber, one pipe to each bed will be sufficient, the bed not being more than 3 feet wide, of which width the side walls will take up at least 4 inches. You ought to have a depth of from 6 inches to 9 inches of drainage over the pipes, and a foot to 14 inches for soil; and the distance from this to the trellis ought not to be less than a foot, and it need not exceed that, the trellis being 15 inches from the glass. To maintain a suitable temperature for Cucumbers in winter, early Melons, and stove plants, you must have four rows of pipes for top heat, and we should have them about 6 inches above the level of the border on both sides of the path; or you may have one pipe all round the sides of the houses close to the walls, and the return-pipes in the paths, and raised so as to be on a level with those affording bottom heat to the borders. Four-inch pipes will be the most suitable. We should have the walk sunk, but that is quite immaterial if you have headroom without their being so. You do not say what is the width of your vineries, but if not over 12 feet, you will for the Muscat house require four rows of 4-inch pipes the length of the house, and for the other house of Black Hamburghs two rows will be sufficient.

STRAWBERRIES FOR CLAY SOIL (F. W.).—Sir Joseph Paxton, President, Mr. Hogg, Lucas, Cockcomb, and Frogmore Late Pine. The ground should be well and deeply dug and manured, but not at the surface; and the plants—well rooted runners of this year from fruitful plants—should be put in without delay.

HYDRANGEAS NOT FLOWERING (H. P.).—The plants, if not already showing for flower, will not do so this summer or autumn. The reason of their not flowering we are not able to explain from the insufficient data you give. It probably arises from the non-ripening of the wood. Give them less encouragement to growth, and expose fully to light and air, so as to insure the thorough ripening of the wood, and this effected it is likely the plants will produce next season some fine heads of flowers.

RETARDING PEAS FOR EXHIBITION (J. G.).—The present and late hot weather has brought on crops amazingly. Your Peas at present in flower will be much too forward for exhibition if the hot weather continue until September 1st. Your only mode of keeping them back is to have them always well watered, and shade them from sun during the day, removing the shading at night, or in the day when cloudy. It is likely by this process you may so retard the ripening as to have some pods fit to gather at the time you name.

NAMES OF PLANTS (D.).—1, *Senecio sylvaticus*; 2, *Hypericum montanum*; 3, *Sedum rupestre*; 4, *Erythraea Centaureum*; 5, *Teucrium Scutellaria*; 6, *Elycium europaeum*. (T. W.).—The Saxifrages are more or less hairy forms of

S. hirta; the *Sedums* seem both *S. anatum*. (J. Luck).—*Lilium excelsum*. No, there are many similar and better. (E. Don).—*Il. manthus panicus*.

POULTRY, BEE, AND PIGEON CHRONICLE.

UNION OF PHEASANTS WITH DOMESTIC FOWLS.

By the republication from the American "Fanciers' Journal," of Dr. James S. Bailey's very intelligent and interesting remarks relative to hybrid or mule birds, it appears that gentleman has fallen into an error, so far as regards Mr. Hewitt's opinion in reference to the cross of the Golden Pheasant cock with different varieties of fowls. It is not often the common wild Pheasant of our coverts will voluntarily associate on friendly terms with barndoor fowls, but occasionally they do, and I have myself known of such cases. In a wood adjoining the stables and poultry-yard at Thurnham Hall were plenty of Pheasants, and these birds were often on the meadow or paddock with the barndoor fowls, and the cocks of this breed were always driven off the ground immediately on the appearance of the other gang. The Pheasants and domestic hens became friendly indeed. Many of these hens' eggs were set, and from them hatched great numbers of half-bred Pheasants. They were exactly as those Mr. Bailey describes, "exceedingly wild, with heads devoid of combs, wattles, or deaf-ear, with tails approaching the conformation of the Pheasant, but not so lengthy." At one of the lodges on the Manor of Tawstock Court, in Devonshire, a few hens were kept by the occupier, one of which was often seen in company of a cock Pheasant. After a time this hen could be but rarely seen at the lodge, merely coming once a-day for a meal, but at last turned up early one morning with sixteen chickens unmistakably the offspring of her and the Pheasant cock.—A DEVONIAN, *Galeacre*.

PRESERVING EGGS.

For several years we have preserved eggs in dry salt, in jars or boxes, placing the eggs in layers, always allowing the salt to completely cover the top layer. They must be kept in a dry place. We found they kept best in a kitchen cupboard, a cellar being too damp. The eggs with very few exceptions were fresh and good when boiled or poached. I have heard that bran or sand will answer the same purpose, but have not tried these.—A. C., *Jersey*.

LINCOLN POULTRY SHOW.

If a fixed determination to make a show a success ever ruled the actions of a committee, most surely it did so at Lincoln, where every personal exertion was made to make the arrangements as complete as possible. The tent was a very commodious one, and also a most substantial structure of its kind, whilst the feeding and watering of the whole of the birds exhibited were constantly under the immediate supervision of one or other of the acting Committee. It is remarkable at this season of the year that so large an entry of poultry could be got together—the number, exclusive of Pigeons, reached to upwards of 550 pens. Nor was this large entry composed of anything but superior specimens; in fact, the two Judges stated it as their opinion that they had never seen so many first-class fowls together so soon after midsummer. Of course many of even the most notable of these fowls were getting into deep moult, which the excessive heat of the sun upon the canvas of the tent would no doubt very considerably expedite. We must mention that the Committee, with a forethought rarely equalled, supplied all the pens with fresh-gathered lettuces, which were indeed a luxury to the poultry generally, whilst some of the more vigorous breeds seemed to sanction the old axiom, "Done first, help the other."

It was indeed a treat to walk down the *Cochin* classes, a constant succession of the best of birds arresting the eyes of both Judges and visitors. It would be difficult to name a better competition, many of these varieties being shown in as faultless a condition as at a Christmas meeting. *Dorkings* of every variety were well supported, some of the Silver-Greys being far better than generally met with. In *Spanish* the Show was excellent, the hens more especially, the first-prize hen of this breed being also the general cup-winner. *Polish* fowls of both the Spangled varieties have rarely if ever been excelled. Undoubtedly the best of the classes for *French* fowls were the *Crêves*, though some excellent *Houdans* were exhibited. The Lincoln Show proved also notable for its *Brahmas*, both Light and Dark-feathered; some of the best of Dark chickens being shown in the chicken class, and such as cannot do otherwise than raise still higher the fame of the party breeding them. In the chicken class, so ample was the entry, and so thoroughly first-rate the competition, that the Committee at once resolved, without any solicitation, to increase the number of prizes from three, as advertised, to five, and even a dozen more prizes

could justly have been awarded, so good were all the birds. The prizes were awarded to five different varieties in the following order—viz., Dark Brahmas, Black Hamburgs, Grey Dorkings, Black Red Game fowls, and White Cochins, eleven pens being highly commended and three others commended. It is just to say very rarely has such a variety of good matured chickens been seen together so early in the season; in fact, the class proved one of the gems of the Show. In Game Brown Reds proved the best of any, though there were some good Black Reds; but the Duckwings were not so good as those shown here last season. Many of the Ducks were remarkably fine, and the Variety class was a study for any naturalist or poultry-breeder. *Hamburgs* were of superlative merit, and many of the oldest exhibitors had now some difficulty to hold their accustomed position, so closely trying was the competition, and most of the birds were in capital feather. In the class for any variety of single cocks a grand Malay as to character, but sadly out of feather, was first, and La Fliche and another Malay second and third; in the Variety class for hens the first and second went to Malays, and the third to an Andalusian, but she was much bleached by the sunshine.

There was a very large show of Game *Bantams*, but a goodly number were sadly out of condition by being so much over-shown. Of other Bantams the Silver-faced were very fine in the ground colour, but require breeding-down in size, especially the cock, he more particularly being far beyond the standard proportions. Several pens of "little beauties" the Black Bantama came in for considerable notice; and a pen of very heavily booted White Bantams (single-combed), were penned in first-rate show condition.

With a Show so admirably conducted it is not difficult to secure public support, and in all probability future years will witness even an increased entry.

POLISH CLASSES.

(From a Correspondent.)

The first and third prize cocks were splendid Silvers; grand crests, beautiful colour, and well marked both in breast and wings. The second-prize bird was a very large-crested Golden, rather light in colour, but well marked. Mr. Silvester's is a large-crested bird, but the crest seems rather flimsy; he is too dark on the breast. Mr. Dean's was a nice-coloured Golden, but a little high in the back. Mr. Feast's was also a well-marked and good coloured Golden bird, but too small in crest. In hens first was a splendid Silver, although the highly commended one belonging to the same exhibitor looked the better of the two; second a Golden, of very rich colour, well marked and fine crest; third a Black with a capital crest. Mr. Silvester's hen's crest seemed quite chafed away; she is a very fine-coloured Golden. Mr. Dean's was a young Golden, which will make a capital bird after moult. Mr. Feast's was a good-coloured Golden hen—too small, however, in crest. Mr. Boothby showed a good pair of Golden in the local class. The hen is a rich colour, well marked, and has a fine crest. The cock was a capital bird, well marked on the breast and wings, good crest, but not so good as the hen.

COCHINS (Cinnamon or Buff)—Cock—1, Henry Lingwood, Barling, Needham Market. 2, S. R. Harris, Usborne, St. Day. 3, A. Darby, Bar-church. *hc*, W. H. Beldon, Levenshulme; J. B. Woodford, Cheltenham; W. A. Barnell, Southwell, Notts; G. A. Stephens, R. P. Percival, Northampton, Manchester. A. Darby. *Hen*—1, W. H. Crabtree. 2, Henry Lingwood. 3, R. P. Percival. *hc*, J. Bloodworth.

COCHINS (Partridge)—Cock—1, T. Stretch, Ormalkirk. 2, W. H. Crabtree. 3, H. Beldon, Bingley. *Hen*—1, T. Stretch. 2, T. M. Berry, Gedgey. 3, W. H. Crabtree. *hc*, W. H. Crabtree; J. K. Fowler, Aylesbury.

COCHINS (Any other variety)—Cock—1, R. S. S. Woodgate, Pembury, Tunbridge Wells. 2, Mrs. J. Harrison, Leicester. 3, W. Whitworth, jun. 4, Long-sight. *hc*, W. A. Parnell. H. Beldon; J. Walker, Rochdale. *c*, G. W. Hibbert. *Hen*—1 and Cup, R. S. Woodgate. 2, W. Whitworth, jun. 3, J. Bloodworth. *hc*, J. Walker; Mrs. Williamson; H. Beldon; A. Darby. *c*, Mrs. Williamson; W. Whitworth, jun.; W. A. Barnell.

BRAHMS (Dark)—Cock—1, W. H. Crabtree. 2, Horace Lingwood, Creting, Needham Market. 3, T. Raines, Sterling. *hc*, W. H. Crabtree; J. F. Smith, Sheffield. *Hen*—1, W. H. Crabtree. 2 and 3, T. F. Ansell, Coveley Mount, St. Helen's. *hc*, W. H. Crabtree; Horace Lingwood; R. P. Percival. **BRAHMS** (Light)—Cock—1, P. Haines, Diss. 2, Mrs. Williamson. 3, M. Leno, Markyate Street, unstable. *hc*, Mrs. Williamson; J. Bloodworth; Horace Lingwood. *Hen*—1, P. Haines. 2, R. P. Percival. 3, W. H. Crabtree. *hc*, Mrs. Williamson; Horace Lingwood.

DORKINGS (Coloured, except Silver-Grey)—Cock—1, T. Raines. 2, Henry Lingwood. 3, J. Walker. *hc*, R. Cheesman, Westwell, Ashford; W. Morritt; T. C. Barnell. *Hen*, J. W. H. Harrison, Leicester. 2, L. Pilkington, Gateacre, Liverpool. 3 and *hc*, A. Darby.

DORKINGS (Any other variety)—Cock—1, L. Wren. 2, J. Robinson. 3, W. Roe, jun. *hc*, H. Feast, Swinsea. *Hen*—1 and 3, O. F. Crosswell, Early Wood, Ragshot. 2, L. Wren, Lowestoft. *hc*, T. Raines (2); J. Robinson.

SPENCER—Cock—1, R. Newbitt, Epworth. 2, J. Leeming, Broughton, Preston. 3, H. Beldon. *hc*, J. Barry, Bristol; J. F. Dixon, Cotgrave. *Hen*—1, 1 Cup, and 3, J. Leeming. 2, A. Darby. *hc*, W. Nottage, Northampton; J. Th. Bradst. (2); R. Newbitt.

PULLED—Cock—1, 2 and 3, H. Beldon. *hc*, A. & W. H. Silvester. *Hen*—1 and 2, H. Beldon. 3, A. Darby. *hc*, T. Dean, Keighley; H. Beldon.

CREVE-COEURS—Cock—1, R. B. Wood, Uttewater. 2, G. W. Hubbard, Godley, Hyde. 3, J. Robinson. *hc*, W. H. Crabtree; R. B. Wood; Rev. C. C. Fawcett, Langford Vicarage. *Hen*—1, J. J. Mallen, Biggleswade. 2, Mrs. Cross. 3, W. G. Patchett, Southwell. *hc*, W. H. Crabtree; E. Lautour; R. B. Wood; J. K. Fowler.

HINDS—Cock—1, J. Swan, Stonefield, Lincoln. 2, G. D. Harrison, Datchet. 3, W. Dring, Faversham. *hc*, F. Brayer, W. H. Coppleson; W. O. Quibell, Newark. *Hen*—1, R. A. Boissier. 2, K. Coney, Alford. 3, W. Dring.

HAMBURGERS (Black)—Cock—1 and 3, H. Beldon. 2, J. Long, Bromley Common. *hc*, J. Robinson. *Hen*—1, Stott & Booth, Huntley Brook, Bury. 2 and 3, H. Beldon. *hc*, J. Robinson. *c*, Capt. Mason, Lincoln.

HAMBURGERS (Golden-spangled)—Cock—1 and 2, H. Beldon. 3, J. Long. *hc*, G. & J. Duckworth. *Hen*—1, T. Dean. 2 and 3, G. & J. Duckworth, Church. *hc*, P. Hanson, Stonehouse; T. Walker. *c*, H. Beldon.

HAMBURGERS (Silver-spangled)—Cock—1, H. Beldon. 2, Ashton & Booth, Mottram. 3, J. Long. *Hen*—1, Cup and 2, H. Beldon. 3, J. Long. *hc*, S. R. Harris; Ashton & Booth; J. Robinson; T. H. Turner, Sheffield.

HAMBURGERS (Golden-pencilled)—Cock—1, H. Beldon. 2, J. Long. 3, H. Feast. *hc*, J. Rhodes; W. Speakman. *c*, G. & J. Duckworth. *Hen*—1, W. Clayton, Keighley. 2, H. Beldon. 3, J. Long. *hc*, J. Smith; W. Speakman.

HAMBURGERS (Silver-pencilled)—Cock—1, J. Long. 2 and 3, H. Beldon. *hc*, H. Beldon. *Hen*—1, J. Kibson. 2, J. Robinson. 3, J. Long.

GAME (Black-breasted Red)—Cock—1, Miss M. J. Nelson, Cockshaw, Ickham. 2, W. J. Pope, Biggleswade. 3, S. Matthew, Stowmarket. *hc*, J. Mason, St. John's Worcester. *Hen*—1, S. Matthew. 2, W. J. Pope. 3, D. Harley, Edinburgh. *hc*, Hon. and Rev. F. Dutton, Windrush Vicarage.

GAME (Brown-breasted Red)—Cock—1 and Cup, D. Harley. 2, R. Asbley. 3, C. Brierley, Middleton. *hc*, S. Matthew. *Hen*—1, C. W. Brierley. 2, F. Sale, Crowle. 3, S. Matthew. *hc*, R. Asbley, Nantwich. *c*, Rev. H. W. Hutto, Lincoln.

GAME (Duckwing or Pile)—Cock—1, R. Walker, Gomersal. 2, S. Matthew. 3, J. A. & H. H. Staveley, Driffield. *Hen*—1, S. Matthew. 2, F. Sales. 3, J. A. & H. H. Staveley.

ANY OTHER VARIETY EXCEPT BANTAMS—Cock—1, Rev. A. G. Brooke, Shrawardine (Malay). 2, Rev. N. J. Ridley (La Fliche). 3, Lady D. Yeoman, Whitby (Black-breasted Red Malay). *c*, A. A. Vander Meersch, Tooling (Sheffield). *Hen*—1, Rev. A. G. Brooke (Malay). 2, Rev. N. J. Ridley, Hollingdon, Newark (Malay). 3, Rev. R. Hart, Stamford (Blue Dun Game).

ANY VARIETY—Cockrel and Pullet—1, Horace Lingwood (Dark Brahma). 2, H. Robinson, Baidon (Black Hamburgh). 3, R. Cheesman (Coloured Dorking). 4, B. Mollett, Balham (Black Red Game). 5, J. K. Fowler (White Cochins). *hc*, J. J. Maldon (White Cochins); E. Ellis, Early (Dark Brahma); W. Croft, Gainsborough (Light Brahma); T. Breden (Coloured Dorking); O. E. Cresswell (Silver-Grey Dorking); W. Dring (Creve-Coeur and Hondan); G. D. Harrison (Hondan); W. H. Cupples, Louth (Hondan); J. K. Fowler (Hondan); Dr. A. Cameron, Brentwood (Brown Red Game). *c*, F. G. Wilman, Newport, Lincoln (Buff Cochins); W. A. Wright, Birkdale, Southport (Dark Brahma) (2).

SELLING CLASS.—Price not to exceed £2.—1, J. Leeming. 2, R. Walker (Pile Game). 3, Miss M. J. Nelson (Brown Red Game). *hc*, Mrs. Cross, Appleby Vicarage, Brigg (French); Capt. Mason (Black Hamburgh); W. A. Barnell (Buff Cochins); J. Swan (Hondan). *c*, F. & W. Livesley (Buff Cochins).

LOCAL CLASS.—For residents in the County of Lincoln—1, R. Newbitt. 2, G. W. Boothby, Louth (Golden Poland). 3, E. Wastow, Lincoln (Buff Cochins). *c*, T. & W. Livesley (Buff Cochins).

DUCKS—Aylesbury—1, Cup and 2, J. Walker. 3, J. K. Fowler. *hc*, S. R. Harris; J. K. Fowler. *Rouen*—1, J. K. Fowler. 2, Capt. R. Swan. 3, J. Walker. *Black*—1 and 2, G. S. Sainsbury, Devizes. 3, F. P. Carver. *Any other variety*—1, 2, and 3, H. B. Smith, Broughton. *hc*, J. Walker; Dr. H. J. Buck, Newport, Essex; W. Leno; H. Reid, Smith.

GAME BANTAMS (Black-breasted Red)—Cock—1, Cup and 3, W. F. Addie, Preston. 2, G. Anderton, Accrington. *hc*, G. Hall, Kendal; Miss M. J. Nelson; W. F. Edwistle, Westfield, Bradford. *Hen*—1, Mrs. E. Newbitt. 2, Miss M. J. Nelson. 3, W. F. Edwistle. *hc*, G. Hall; J. P. Mansell, Lincoln; W. F. Addie; J. Eaton; J. R. Robinson, Sunderland.

GAME BANTAMS (Duckwing or Pile)—Cock—1, Mrs. E. Newbitt. 2, J. Eaton, Grantham. 3, S. Beighton, Farnsbury. *hc*, S. Beighton. *Hen*—1, S. Beighton. 2, J. Eaton. 3, W. F. Edwistle. *hc*, Miss M. J. Nelson.

GAME BANTAMS (Any other variety)—Cock—1, S. Beighton. 2, R. Rooksby, Stamford. 3, J. Long. *Hen*—1, S. Beighton. 2, 3, and *c*, W. F. Edwistle.

BANTAMS (Black)—1 and 2, R. H. Ashton, Mottram. 3, J. H. Bradwell. *c*, J. Watts.

BANTAMS (Any other variety)—1 and 2, M. Leno. 3, R. S. S. Woodgate.

PIGEONS.

CARRIERS (Black)—Cock—1, R. Fulton, New Cross. 2, P. R. Spencer, Hereford. *Hen*—1, R. Fulton.

CARRIERS (Any other colour)—Cock—1, R. Fulton. *Hen*—1, R. Fulton. **POUTERS** (Blue)—Cock—1, R. Fulton. 2, R. Raston, jun, Chatteris. *Hen*—1, R. Fulton. 2, W. Nottage, Northampton. *hc*, R. Raston, jun.; H. Yardley.

POUTERS (Any other colour)—Cock—1, R. Fulton. 2, W. Nottage. *Hen*—1, R. Fulton.

TUMBLERS (Almond)—Pair—1 and Cup, H. Yardley. 2, R. Fulton. *hc*, R. Fulton; J. Ford, Monkwell Street, London.

TUMBLERS (Any other variety)—Pair—1, J. Baker, Kew Bridge. 2, R. Fulton. *hc*, H. Yardley; A. A. Vander Meersch.

ANTWERPS—Pair—1 and *hc*, H. Yardley. 2, W. Slater, Gravelly Hill, Birmingham.

BARDS—Pair—1, R. Fulton. 2, H. Yardley.

DRAGONS (Blue or Silver)—Pair—1, W. Smith. 2, R. Fulton.

DRAGONS (Any other colour)—Pair—1, R. Fulton. 2, H. Yardley. *hc*, J. Baker.

FANTAILS—Pair—1, H. Yardley. 2, J. F. Loversidge, Newark. *hc*, R. Fulton.

JACOBS—Pair—1 and 2, R. Fulton. 2, J. Baker.

OWLS—Pair—1 and Cup, R. Fulton.

TRUMPETERS—Pair—1, R. Fulton. 2 and *hc*, A. A. Vander Meersch.

TERRITS—Pair—1, J. Baker. 2, R. Fulton. *hc*, H. Yardley.

ANY OTHER VARIETY—Pair—1, H. Yardley (Hondanettes). 2, A. & W. H. Silvester, Sheffield. *hc*, A. & W. H. Silvester; H. Yardley (Pillbacks); Rev. A. G. Brooke (Burmese).

SELLING CLASS.—single or Pairs.—Price not to exceed £1 1s.—1, J. Walker (Fantails). 2, F. K. Spencer. 3, H. Yardley.

CAGE BIRDS.

NORWICH (Clear, Ticked, or Evenly-marked Yellow)—1, W. Richards. 2, J. Adams, Coventry. 3, E. Orme, Derby. *hc*, J. Bexson, Derby. *hc*, J. Read, Market Rasen.

NORWICH (Clear, Ticked, or Evenly-marked Buff)—1, J. Bexson. 2, W. Richards, Bulwell, Nottingham. 3, J. Adams.

GREENS—1, J. N. Harrison, Belp. **BELGIANS**—1, J. N. Harrison. 2, R. Hawman, Middlesbrough.

MANCHESTER (Coppys or Plain Heads)—1, 2, and *hc*, Evans & Smethurst, Lower Broughton. 3, L. Belk, Dewsbury. *hc*, J. N. Harrison.

LIZARDS (Golden or Silver-spangled)—1, J. N. Harrison. 2, L. Belk. 3, T. Green, Gainsborough.

CRESTED—1, R. Hawman. 2, J. Bexson. 3, Evans & Smethurst. *hc*, L. Belk; G. Dorman, Nottingham.

ANY OTHER VARIETY—1, J. Bexson (Cinnamon). 2, J. Adams (Cinnamon). 3, and Extra 3, L. Belk (Evenly-marked Yorkshire and Evenly-marked Cinnamon). *hc*, E. Orme (Vari-gated Cinnamon).

MILES—1, J. Adams (Goldfinch). 2, J. Bexson (Dark Jongue Goldfinch). 3, R. Hawman (Goldfinch). *hc*, Evans & Smethurst (Mealy Goldfinch); J. Smith, Lincoln (Linnet). *hc*, G. Butts, Lincoln (Goldfinch).

BRITISH BIRDS (Goldfinches)—1, R. Hawman. 2, T. Green. 3, J. N. Harrison.

HARTER BIRDS (Any other variety)—1, V. White, Lincoln (Bullfinch). 2, J. S. C. F. J. Marshall, Lincoln (Bullfinch). 3, S. White, Lincoln (Green Linnet).

FOREIGN BIRDS—1 and 2, W. Wilcox, Lincoln (South African Love Birds and South Australian Shell Parrots). 3, T. Harrison (Virginian Nightingale).

SELLING CLASS.—Price, including Cage, not to exceed 15s.—1 and 3, L. Belk (Belgian and Copy). 2, T. Green (Yellow Norwich).

RABBITS.

LOF-FEARED.—Duck or Doe—1, F. Banks, Doughty Street, London. 2, R. A. Boissier, Penshurst. *hc*, H. Gübert.

SILVER-GRAY.—*Buck or Doe*.—1, Miss Mortimer, Ross. 2, J. Hallas, Huddersfield.
HIMALAYAN.—*Buck or Doe*.—1, W. Whitworth, jun. 2, J. Hallas. *hc*, R. A. Boussett, W. Doukin, Driffield; C. Marshall, Scotchbarn, Lincoln.
ANY OTHER VARIETY.—*Buck or Doe*.—1, H. Swetnam, Falford (Angora). 2, M. Marsland, Gooite. *hc*, 3, Marsland; C. Marshall (White Spanish).
SELLING CLASS.—*Buck or Doe*.—*Price not to exceed £1*.—1, J. E. Piggin, Hinchley (Himalayan). 2, F. Baeks. 3, J. Bowman, York (Lop-eared Grey).
JUDGES.—*Poultry*: Messrs. E. Hewitt and R. Teebay. *Pigeons and Rabbits*: Mr. F. Esquilant. *Cage Birds*: Mr. G. J. Barnesby.

DARLINGTON BIRD SHOW.

THE Ornithological Nest Feather Society held its second annual Exhibition of Canaries, Mules, and British Birds, in the nest feather only, on the 11th inst. There was a grand collection of young Canaries. The arrangements were all that could be desired, and carried out by an able Committee.

NORWICH.—*Clear Junque*.—Goblet and 1, J. & T. Cleminson, Darlington. 2, A. Upton, Derby. *hc*, J. & T. Cleminson; B. Castelow, Sunderland; J. Adams, Coventry. *c*, R. E. Triffett, York.
NORWICH.—*Clear Buff*.—1, 2, and Extra 2, J. & T. Cleminson. 3, R. Wrightson, Eastbourne, Darlington. *hc*, R. Harrison, Darlington; W. Russell, Darlington; J. Gooite, Leicester. *c*, R. Harrison.
NORWICH.—*Evenly-marked Buff or Yellow*.—1 and 2, J. Adams. 3, J. & T. Cleminson. *hc*, J. Calvert, Bootham, York.
NORWICH.—*Ticked or Unevenly-marked Junque*.—1, J. & T. Cleminson. 2, J. Adams. Extra 2, Petty & Cass, York. 3, J. Calvert. *hc*, R. Wrightson; A. Upton; R. Pearson, Whitby.
NORWICH.—*Ticked or Unevenly-marked Buff*.—1, J. & T. Cleminson. 2, W. & C. Burniston, Middlesbrough. *hc*, J. & T. Cleminson; J. Adams.
NORWICH.—*Junque-crested*.—Silver Medal and 1, R. E. Triffett. 2, J. Gooite.
NORWICH.—*Duff-crested*.—1, J. Gibson, Bishop Auckland. 2 and *hc*, R. E. Triffett. *c*, F. Lindsley.
LIZARD.—*Golden-spangled*.—1 and 2, R. Ritchie. *Silver-spangled*.—1, J. & T. Cleminson. 2, R. Ritchie. *hc*, G. Dunn, Barnard Castle.
LIZARD.—*Gold or Silver-spangled, with Broken Cap*.—1 and 2, J. & T. Cleminson. *hc*, R. Ritchie.
CINNAMON.—*Junque*.—1, J. Calvert. 2, G. Wallace, Darlington. *hc*, J. & T. Cleminson; J. Adams. *Buff*.—1, J. Adams. 2, T. Tenniswood, North Auckland, Middlesbrough. *hc*, T. Abbott, Darlington; G. Wallace. *c*, R. Stockdale, Spennymoor.
YORKSHIRE.—*Clear Yellow*.—1 and 2, W. Howard, Harrogate. *hc*, W. Iddison, Darlington (2). *Clear Buff*.—1, Earle & Swainston, Darlington. 2, T. Tenniswood. *hc*, W. Howard; E. Moan, North Ormesby.
YORKSHIRE.—*Ticked or Unevenly-marked*.—1, G. Cooper, Darlington. 2, R. Pearson, Whitby. *hc*, J. Baker, Cockerton; J. & T. Cleminson. *c*, R. Layfield, Darlington.
CANARY.—*Any other variety*.—1, W. & C. Burniston. 2, J. Adams. *hc*, T. Tenniswood.
CANARIES.—*Cage of Six*.—1, J. & T. Cleminson. 2, J. Adams.
SELLING CLASS.—1, J. & T. Cleminson. 2, W. T. Hampton, Darlington. *hc*, W. & C. Burniston.
MOLE.—*Any variety*.—1 and 2, R. Stockdale. *hc*, R. Layfield.
BRITISH BIRD.—*Any variety*.—1, W. & C. Burniston. 2, T. Armstrong, Great Broughton.

Mr. J. Bexson, Derby, was the Judge.

OUNDE POULTRY SHOW.

THE following awards were made at this Show, held on the 15th inst.:—

DORRINGS.—*Cock*.—1, 2, and 3, R. Wood, jun., Clapton. *c*, Rev. E. Bartrum, Berkhamstead. *Cockerel*.—1, F. E. Bayard, Gwernydd, Berriew. 2, R. Wood, jun. *hc*, L. B. Calcott, Oundle.
DORRINGS.—*Hens*.—1, 2, and 3, R. Wood, jun. *Pullets*.—1, T. C. Burnell, Micheldever. 2 and *hc*, Rev. E. Bartrum. *c*, F. E. Bayard; H. Wyman, Conington; L. B. Calcott, Oundle.
GAME.—*Cock*.—1, C. Chambers, Oakham. 2 and 3, H. Lotan, Oundle. *hc*, W. Bearpark, Anderby Steeple; Howard & Patenell, Wellingborough; Mrs. Deacon, Folebrook Hall; E. Winwood, Wroeseter. *c*, H. E. Martin, Sculthorpe, Folebrook. *Cockerel*.—1, T. Dyson, Hahfax. 2 and *c*, B. Mallet, Batham, Surrey.
GAME.—*Hens*.—1 and 2, H. Lotan. 3, H. Howe, Wellingborough. *hc*, H. E. Martin; E. Winwood. *Pullets*.—1, T. Dyson. 2, Howard & Patenell.
SPANISH.—*Black*.—*Cock*.—1, T. Boulter, Clerkenwell. 2, W. Nottage, Northampton. *hc*, T. W. Haliham, Whitwick, Leicester. *Hens*.—1, M. Brown, Abertilly. 2, J. F. Parker, Northampton. 3, W. L. Bull, Newport Pagnell. *hc*, E. Winwood. *Chickens*.—1, W. L. Bull.
COCHIN-CHINA.—*Cock*.—1, E. Winwood. 2, T. Sear, Aylesbury. *hc*, H. Feast, Swadsea; H. Yardley, Birmingham; W. A. Burnell, Southwell. *Hens*.—1, E. Winwood. 2, H. Yardley. *Chickens*.—1 and 2, W. A. Burnell. 3, H. Feast.
BRAMMAS.—*Dark*.—*Cock*.—1, H. Lingwood, Creeting, Needham Market. 2, T. F. Ansell, Cowley Mount, St. Helen's. *hc*, R. A. Boissier, Penshurst. *c*, J. S. Clarke, Oundle. *Hens*.—1, T. F. Ansell. 2 and *c*, J. S. Clarke. *hc*, H. Wyman. *Chickens*.—1, H. Lingwood. 2, J. S. Clarke.
BRAMMAS.—*Light*.—*Cock*.—1, Mrs. Peel, Sharnbrook. 2, H. Lingwood. *hc*, M. Leno, Dunstable. *Chickens*.—1, H. Lingwood. 2, Mrs. Peel. *c*, S. Lucas, Hitchin.
HAMBOURG.—*Gold and Silver-pencilled*.—1, J. Ward, Ashby-de-la-Zouch. 2, W. Tickner, Ipswich. *Gold and Silver-spangled*.—1, J. Ward. 2, W. Tickner. *BANTAMS*.—1, R. Wood, jun. 2, M. Leno.
ANY OTHER DISTINCT BREED.—1, W. Bearpark, 2, H. Feast. 3, W. Cntlack, jun., Littleport. *hc*, R. A. Boissier.
SELLING CLASS.—1, H. Lotan. 2, A. F. Faulkner, Thrapstone. *c*, E. V. Snell, Baffwden; W. Taylor, Glapthorn; J. S. Clarke. *Hens*.—1, J. T. Parker, Northampton. 2, T. Love, Kingsthorpe, Northampton. *hc*, T. Boulter. *c*, A. Checkley, Wellingborough.
GEES.—1, Mrs. Deacon. 2, M. Kew, Market Overton, Oakham.
DUCKS.—*Aylesbury*.—1, Mrs. Deacon. 2, T. Sear, Aylesbury. *hc*, H. Wyman. *Rouen*.—1, R. Wood, jun. 2, T. Halmshaw, Earlsnewton, Dewbury. *Any other variety*.—1 and 2, M. Leno.
TURKEYS.—1, M. Kew. 2, Mrs. Deacon. *hc*, J. B. Underwood, Warmington.

PIGEONS.

CARRIERS.—1, W. Nottage, Northampton. 2, J. E. Palmer, Peterborough. *hc*, H. Yardley, Birmingham.
FOUTERS.—1, L. Watkin, Northampton. 2, J. E. Palmer. *hc*, W. Nottage; H. Yardley.
ANY OTHER VARIETY.—1, H. Yardley. 2, J. E. Palmer. *c*, J. F. Loversidge, Newark; J. Coote, jun., Wellington; T. Chambers, jun., Northampton (2).

RABBITS.

HEAVIEST.—J. Rev. H. H. Gillet, Wadenhoe, Oundle.
LOU-SARD.—1, G. Wood, Clapton. 2, W. E. Dolby, Oundle.

SILVER-GRAY.—1, Rev. H. H. Gillet. 2, A. W. Whitehouse, Northampton. *FANCY*.—1 and 2, G. Mault, Lowick.
JUDOE.—Mr. Tegetmeier.

THE POULTRY-KEEPER.—No. 12.

THE DORKING.

COCK—GENERAL CHARACTERISTICS.

Of a noble deportment, though of a rather rounded form, stout and large, covered by abundant plumage. Hackle thick;



Fig. 26.—Dorking Cock.

tail of medium length; comb single; wattles and ears very long; five toes to each foot; bones fine and light (fig. 26).

Weight.—At full age from 7½ lbs. to 8½ lbs.

Flesh.—Abundant, very white, very fine, and easily disposed to fatten.

Shape.—In all cases the bird should be of ample size, yet proportioned to its height, and never long and narrow.



Fig. 27.—Dorking Cock's Head.

Head (fig. 27).—Strong, upon a neck apparently thick on account of its very abundant hackle.

Comb.—Single, high and large, prolonged behind, as straight as possible, and regularly and largely toothed. The comb is sometimes double and granulated, especially in the White variety.

Wattles.—Long, large, and hanging.

Checks.—Covered with small, short, white feathers.

Ears.—Rather long, red at the ends, of an azure blue, and peepily near the ear passage.

Beak.—Strong, and curved downwards; black and yellow.

Eye.—Iris, dark red; pupil, black.

Foot.—Of medium length, strong, fleshy, and good pinkish white; soft, and of a very fine texture.



Fig. 28.—Dorking's Foot.



Fig. 29.—Dorking's Foot, under side.

Toes.—Strong, well-jointed, five in number, and of the same characteristics as the foot (figs. 28 and 29).

Plumage.—The Grey Dorking, which is the most noted and characteristic variety, has the hackle and the long saddle feathers of a beautiful straw colour, thickly marked with small black spots. The shoulders are of a deep yellow. The feathers which cover the wings are of a fine black, with very bright purplish iridescence; the large flight feathers white; the breast brilliant black; the sides, thighs, and abdomen of a dull black; the large tail feathers black; the covert feathers of the tail and the sickles black, with green and bronze iridescence.

The cock is very beautiful, and of a very sedate aspect. Its head, wattles, and thick hackle give it a very patriarchal appearance.

SHEFFIELD POULTRY AND PIGEON SHOW.

MANY shows have been started at Sheffield, yet there has been none in that important centre of industry which has been annual, most of them having failed owing to want of public support. Whether that which we now report will become a fixed event remains to be seen, but while we were there on the first day (July 18th) the visitors were not at all numerous. The schedule was an attractive one, many extras in useful Sheffield ware being given besides substantial money prizes, and the entries amounted to about a thousand in all. The management was in the able hands of Mr. Hawley, of Gillingham, Bradford, and the only drawback was that on some account Messrs. Turner were disappointed of some of their pens which had been in use at other exhibitions, and this threw the penning of the birds somewhat behind, so that the arbitrations were not commenced till some time later than was intended. Very large and excellent tents were provided.

Black Red Game cocks were first, but did not show well. The first-prize bird, though a grand fellow, was duck-heeled; the second, though stylish, had lost one spur, and the third was a little flat-shinned. Most of the class were rather shabby in feather. In hens the first was large, stylish, and good in hand, but rather coarse, yet fine in feather; the second of high quality but out of condition, while the third also was of good quality. The piece of plate was awarded to Mr. Matthew's well-known Brown Red, the second being a stag of great promise. In hens an excellent Brown Red was first, closely run by a good Pile. **Dorkings**—cocks were fair, and in hens a splendid chicken was first, second good, but the third a little faded in colour. **Cochin** cocks were a little shabby as a rule, Lady Gwydyr's large old Buff coming second to a good light Buff, which, however, was a little mealy in tail. In hens the first and extra prize went to a very grand Buff pullet, the second and third to hens. In Dark **Brahma** cocks the cup was awarded to a Sheffield bird of great size and good shape, the breast being slightly mottled; second a grand bird in all points, but rather yellow; third a good bird, but smaller. In hens the first was good in shape and well pencilled, also of Sheffield; second very large, but not equal in pencilling and shape—a really good pullet. In Light **Brahma**

a cock of great merit, but a little yellow, was first; and in hens a model pullet.

Spanish cocks were a grand class. First a large-faced and broad-dropped bird; second good in face, but narrower in drop; and third a smaller-faced bird, but by far the best in quality. The extra prize went to the first-named cock. Good as were the cocks, a treat was awaiting us in hens, and we do not hesitate to say this was the best class ever seen at this time of year, and we leave the award to particularise the quality respectively. **French** were poor, the winners excepted, la Flèche taking the plate.

In Golden-spangled **Hamburghs** the birds were mostly good, but one or two rather old for the show pen. The first, a thoroughly well-marked bird, had lost one sickle. Hens were very good; the first, one of the best-marked we have seen of late, and sound in colour, but rather broad in comb; second not so bright in ground, but well spangled; third also a thoroughly good hen. In Silver-spangled the first was a model bird, but the second and third failing in spangles on the tail buckle. No. 165, shown by Mr. Long, was almost equal to the first, but sadly broken in feather either at or in transit from Lincoln. Hens good, but not quite up to the Golden. The whole of the winners in Golden-pencilled cocks were good in colour and tails, and, if we are rightly informed, are the produce of one yard. In hens the first was a model of his kind, the second only losing a little in tail, while the third was exceedingly bright in colour, but bad in comb and tail, and a little mossy, and yet at first sight she appeared the best. The winners in Silver-pencilled were good; the first a model bird in all respects. The next class contained some good hens, though, to our liking, rather smaller than is desirable; the third a good pullet. Black **Hamburgh** cocks were good in all points, and the cup for **Hamburghs** was given here, but the hens pressed closely, the first being perfect.

In **Polish** Silvers won in both cases, while **Golden** were second and third; and in the Variety class good **Sultans** were first, **Scotch Greys** second, and **Redcaps** third.

Bantams came next, Black Red cocks heading the list, the first and extra prizes going to a grand old cock rather thick in neck and broad in sickle, while the colour was superb; second and third were good styish birds, one rather broad in head and out of feather, and losing in colour, and the other a similar bird, but the shafts of the sickles red. In hens the first was a grand pullet in both style and colour; second a good hen, and third also a hen. In the following class a Pile was first, Duckwing second, and a very pretty Pile cockerel third. We do not know a better Pile hen in the fancy than that to which the first prize for Any other variety of hen was awarded; style, colour, and condition were perfect. Second came a grand Duckwing, and third a Pile pullet. Black **Bantam** cocks were very good, but not so the hens, excepting that which took the first prize. The piece of plate for these classes went to the Black cock. The **Sebrights** in the next class were not in the best bloom, although we doubt not that when in feather they will be good. In hens a Pekin was first and a Golden-faced second; the third, a Silver Sebright, was quite patchy in marking and needing moult.

There were six Selling classes, and all well filled—in fact, quite a little show of themselves, and the winners were in most cases birds fit for any competition.

PIGEONS formed a fine display, and the classes were well filled. The cup for the greatest number of points was won by Mr. Taylor. In **Blue Pouter** cocks two birds in prime condition were first and second, the third-prize one also being good. In **White** cocks Mr. Nottage won both prizes with good birds, the second losing only in leg-feathering. **Carriers** were not numerous, but some were good, Mr. Yardley's Black cock winning very easily, as also his hen in the following class. The first-prize **Almond** cock was far ahead of the second in head properties, but was closely pressed in point of colour and marking. **English Owls** were one of the best classes; the first, a Silver hen, almost perfect, and second a really good Blue. In **Turbits** Mr. Jones showed a grand Silver cock, to which the piece of plate was justly awarded; and in **Dragoons**, Blue or Silver, the extra prize was given to a Blue cock with the right style of head. **Antwerps** were good classes, the cup going to a Short-faced cock.

RABBITS.—Most of these were placed too high to be easily seen, but these were not the Lops. In **Lop** bucks the first was a Fawn in fine order, 22 by 4½ inches in ear; second a Black-and-white, 21 by 4½ inches. In does the first was a Black-and-white, 21½ by 4½ inches, large, well marked, with an enormous dewlap, and awarded the piece of plate; second a grand Grey, good in colour, 21½ by 5 inches; and third a Tortoiseshell, rather small, and not in the best order, 21½ by 4½ inches. **Silver Greys** came next, but these did not prove good, except the first-prize doe, and this needs a little more time to bring out the silvering; second also a doe not in such good order as we have seen her; and third a buck rather darker than is desirable, but very fair for a buck. Some of the best Rabbits in this class were in full moult. Of **Himalayan** there were only three in the pens, the first large and good in head, but only moderate in feet; second very fair in points, but small and rather mousey; the

Dorkings had seven entries, the first being of the Dark variety and good in all respects, while second came a good Silver-Grey with a poor hen. *Cochins*, Buff were poor, the winners young; but the pen of Whites that took the first prize in the next class were shown in the best possible trim, second being Partridge, and the cock very good. Light *Brahmas* were bad, but the Dark very good, the three pens running uncommonly closely upon each other. Of *Red Game* there were eleven entries, forming a fine class; first coming a very stylish pen of Brown Reds, second one of the same colour, but the hen not so good, while a good pair of Black Reds were awarded the third prize; the latter, however, were out of feather. In the next class there were three entries of Duckwings, old birds coming first, a very stylish pen of chickens being second. *Hamburghs*, though mixed classes according to the schedule, produced only Golden in the Spangles; but these were one of the best classes, five out of the seven pens being noticed by the Judges, and all containing birds of the right stamp. In Pencilled only the first-prize Golden was good, but these were a nice pair. *Bantams* had but one class, the first a grand pen of Blacks, and second Black Red Game; the hen very good, but the cock rather stumpy. Eight pens were noticed in the Variety class out of ten entered, the first being such a pen of White-crested Black Polands as we have not seen of late, and which reminded us of days gone by. The price put upon them was only £5 6s.: hear ye this, ye Poland fanciers! Second were grand Black *Hamburghs*, and third *Silkie*s.

DORKINGS.—1, W. Bennett, Barton-on-Trent. 2, J. Watts, Birmingham. *hc*. W. Bennett; M. M. Cashmore, Loughborough.
COCHIN-CHINAS.—*Cinnamon or Buff*—1 and 2, E. J. Draper, Barton-on-Trent. *c*, J. Watts. *Any other variety*.—1, Dr. Hall, Swallowcliffe, Barton-on-Trent. 2, M. M. Cashmore. *hc*, G. M. Cooper, Barton-on-Trent. *c*, S. W. Hallam, Whitwick; *c*, R. Hall.
BRAHMAS.—*Light*.—1, J. Watts. 2, Dr. Hall. *Dark*.—1, Dr. Hall. 2, J. Watts. *hc* and *c*, G. M. Cooper.
FRENCH.—1, W. Williams, Woodville, Barton-on-Trent.
GAME.—*Black or Brown Red*.—1, E. Staley, Swallowcliffe, Barton-on-Trent. 2 and 3, W. Harvey Midway, Barton-on-Trent. *hc*, Dr. Holme, Lichfield. *hc*, E. Bell, Barton-on-Trent; G. Fumes, Barton-on-Trent. *Any other variety*.—1, W. Harvey. 2, E. Bell. *hc*, R. Staley.
HAMBURGERS.—*Golden or Silver-spangled*.—1 and *hc*, C. Dawes, Newhall. 2, S. W. Hallam. 3, M. M. Cashmore. *c*, J. Watts. *Golden or Silver-pencilled*.—1, Dr. Hall. 2, M. M. Cashmore. *c*, C. Dawes.
BANTAMS.—1, R. H. Ashton, Mottram. 2, E. Bell. *hc*, W. Harvey; J. Watts. *c*, R. Staley.
ANY OTHER VARIETY.—1, Dr. Hall (Poland). 2, M. M. Cashmore (Black *Hamburghs*). 3, M. Buxton, Bretby, Barton-on-Trent (Silkies). *hc*, Dr. Hall (Black *Hamburghs*); J. Watts; J. Ward; S. W. Hallam (Spanish); Dr. Hall (Minors).

The Judges were Messrs. Lowe, of Comberford, and Hutton, of Pudsey.

CLECKHEATON POULTRY SHOW.

The sixth annual Show was held on the 18th inst., and as regards the attendance of visitors proved a great success. The Show at Sheffield seemed to have affected the entries very much, as in some classes there were only as many birds as prizes. *Game* came first, Mr. Brierley winning first in both single cocks and pairs of Reds with good birds. In *Game*, any other variety, we may be pardoned if we differ from the Judge, for the second were undoubtedly best, the first being very coarse. In *Cochins* the winners were Buifs, two good pens of Whites being highly commended. *Spanish* were very fair, and the *Brahmas* good; while in the three classes of *Hamburghs* there were some good birds shown.

In *Game Bantams* the first was a really good pen, the Piles and Duckwings in the next class proving only poor. In the Variety class the winners were Gohl and Silver Polands respectively. The class for chickens was good, almost all of them being noticed; the first being capital Dark *Brahmas*, and second Golden-pencilled.

Ducks and *Geese* were good. In the Variety class Teal Ducks were first, Kasarkas second, and Pintails third.

PIGEONS were not numerous, Mr. Horner, who seems to prefer an easy competition, winning most of the prizes with a capital stud of birds. In Carriers a good Black was first, Dun a good second. Pouters were, first Blue and second Reds. *Dragoons* were a good class. A capital Blue was first, and Yellow second; but in Jacobins No. 1, unnoticed, ought to have been first. Antwerps were very strong, good Duns winning in both cases.

RABBITS.—Of these there were twenty-six entries. In Lop-eared bucks Greys were first and second. Two good Silver-Greys won in the Variety class for bucks; the first in does being Angora, and second a small and neat Dutch.

GAME.—*Any variety*.—Single Cock. 1, C. W. Brierley, Middleton. 2, J. Fortune, Morton Banks, Keighley. *Black or Brown Red*.—1, C. W. Brierley. 2, J. W. Thornton, Bradford. *hc*, W. Bentley, Scholes; H. Beaman, Bradford. *Duckwing, Blue or Grey*.—1, H. C. & W. J. Mason, Drighlington. 2, E. Holland, Ovenden. *Any variety*.—1, E. Walker, Gomersal. 2, H. C. & W. J. Mason. *hc*, H. Walker, Gomersal; C. W. Brierley.

DORKING.—1, J. Walker, Rochdale.
COCHIN-CHINAS.—1, W. H. Crabtree, Manchester. 2, C. Sidwick, Keighley. *hc*, W. Whitworth, jun., Manchester. *hc*, H. Beldon, Bingley. *c*, E. Winwood, Worcester. 3, F. W. Shackleton, Bradford.

SPANISH.—Black. 1, J. Thresh, Bradford. 2, H. Beldon.
BRAHMA POULTRY.—1, T. F. Ansell, St. Helen's. 2, W. H. Crabtree. *hc*, W. H. Crabtree. 3, H. Whitson, Earby. 4, H. Beldon. 5, T. F. Ansell.
HAMBURGERS.—*Gold or Silver-spangled*.—1 and 2, H. Beldon. *Gold or Silver* spangled. 1 and 2, H. Beldon. *c*, W. Kellett, Birstal.

PIREASANT.—Black. 1, T. W. Holmes, Baildon. 2, H. Beldon. *hc*, H. Beldon; C. Sidwick; J. Smith, Calverley.
GAME BANTAMS.—*Black or Brown Red*.—1, G. Noble, Staincliffe. 2, S. Smith, Northtram. *Any variety*.—1, J. Sugden, Swindley. 2, S. Smith. 3, F. Holt, Staincliffe.

BANTAMS.—*Any variety except Game*.—1, W. H. Robinson, Keighley. 2, E. J. Hingworth, Hightown.

ANY OTHER VARIETY.—1 and 2, H. Beldon. *hc*, W. H. Crabtree.

SELLING CLASS.—1, J. Powell, Bradford. 2, E. Clayton. *hc*, H. Wilkinson; T. Williamson, jun., Cleckheaton; C. Carr, Wilsden.

ANY VARIETY.—*Cochins*.—1, H. Beldon. 2, E. Clayton. *hc*, C. Sidwick; E. Holland; J. Mitchell, Birkenshaw; J. Walshaw, Ratley; W. Scholesfield, Birkenshaw; R. Lord, Rochdale; J. Smith; E. Aykroyd, Eadeshill.

GESE.—1, J. Walker, Rochdale. 2, J. White, Wintley, Netherthorpe. *hc*, F. E. Rawson, Halifax.

DUCKS.—*Aylesbury*.—1 and 2, J. Walker. *hc*, J. Newton, Silsden. *Rouen*.—1, J. Newton. 2, J. Walker. *hc*, T. Halmshaw, Earlsheaton. *Any other variety*.—1, J. Walker. 2 and *hc*, W. Binnis.

PIGEONS.

CARRIERS.—*Single Bird*.—1, P. R. Spencer, Hereford. 2, E. Horner, Harewood, Leeds. *hc*, P. R. Spencer; E. Horner. *Pair*.—1 and 2, E. Horner.

POUTERS OR CROPPERS.—1 and 2, E. Horner. *hc*, H. Yardley.

FANTAILS.—1 and *hc*, J. F. Liversidge, Newark. 2, E. Horner.

DRAGONS.—1, E. Horner. 2, W. Binnis. *hc*, E. Burnhill, Cleckheaton.

JACOBS.—1, E. Horner. 2, H. Yardley.

NUNS.—1 and 2, E. Horner.

ANY OTHER VARIETY.—1, W. Ellis, Leeds. 2, E. Horner. *hc*, W. Lund, Shipley; H. Yardley; W. Ellis; T. Foster, Bingley.

SELLING CLASS.—1, S. Anderson, Mirdfield (Owl). 2, R. Schofield (Dragoons). *hc*, W. Lund (Turbits); E. Horner (Jacobins).

RABBITS.

LOP-EARED.—*Duck*.—1, W. Miller & S. Adams, Bradford. 2, G. S. Burton, Leeds. 3, T. Williamson, jun.; G. S. Burton. *Do.*.—1, G. S. Burton. 2, A. Miller, Bradford. *hc*, F. ea her & Mitchell, Keighley; J. Armstrong.

ANY OTHER VARIETY.—1 and 2, J. Hallis, Huddersfield (Silver-Greys). *Do.*.—1, G. S. Burton (Angora). 2, W. Miller (Dutch). *hc*, S. Ball, Bradford (Angora); A. Atkinson, Huddersfield (Angora); A. W. Whitehouse, Northampton (Silver-Grey).

The Judges were Mr. James Dixon, of Bradford, and Mr. Esquilant, of Brixton.

BRAMLEY POULTRY SHOW.

The following awards were made at this Show held on the 20th and 21st inst. Owing to want of space we are reluctantly compelled to postpone our reporter's comments until next week.

SPANISH.—1, H. Beldon, Bingley. 2, Pallister & Hawkins, Topcliffe. 3, J. Powell, Bradford. *hc*, H. Beldon; W. F. Pickard, Thurner.

COCHINS.—1, H. Beldon. 2, W. Mitchell, Birkenshaw. 3, R. J. Raworth, Harrogate. *hc*, Mrs. C. Outley, Bramley.

BRAHMS.—1, H. Beldon. 2, W. Scholesfield, Birkenshaw. 3, T. Dobson, Kirby Morside. *hc*, W. Mitchell. *c*, A. Atkinson, Armley.

GAME.—1, J. W. Thornton, Bradford. 2, E. Holland, Ovenden, Halifax. 3, Wingfield & Andrews, Worcester. *Cock*.—1, J. W. Thornton. 2, J. Andrews, Worcester.

POLISH.—1 and 2, H. Beldon.

HAMBURGERS.—*Gold-spangled*.—1 and 3, H. Beldon. 2, J. Long, Kent. *Silver-spangled*.—1 and 3, H. Beldon. 2, T. Fawcett, Baildon.

HAMBURGERS.—*Gold-pencilled*.—1 and 3, H. Beldon. 2, T. Fawcett. *Silver-pencilled*.—1 and 3, H. Beldon. 2, J. Long, Kent. *Black-pencilled*.—1, H. Beldon. 2, T. W. Holmes, Baildon. 3, J. Moore, Pudsey. *hc*, Popplewell Bros., Bramley; J. Long.

GAME BANTAMS.—1, G. Noble, Staincliffe. 2, W. F. Entwistle, Westfield, Bradford. 3 and *c*, Wingfield & Andrews. *Cock*.—1 and *hc*, W. F. Entwistle. 2, G. Noble. 3, E. Jennings, Allerton. *hc*, J. Roberts, Bramley.

BANTAMS.—*Black*.—1, Wells & Sherwin, Ripon. 2, R. H. Ashton, Mottram. 3, Wingfield & Andrews. *Any other variety*.—1, H. Beldon. 2, Wells & Sherwin.

DUCKS.—*Rouen or Aylesbury*.—1 and 3, T. Halmshaw, Earlsheaton. 2, Dr. Binnis, Pudsey. *Any other variety*.—1, 2, and 3, Dr. Binnis.

CHICKENS.—1, H. Beldon. 2, W. Scholesfield. 3, W. Mitchell.

ANY VARIETY.—*Cock*.—1, F. W. Shackleton, Bradford. 2, W. F. Erth, Birkenshaw. 3, H. Beldon. *hc*, C. Carr, Wilsden, Bingley.

LOCAL CLASS.—*Free not to exceed 30s.*.—1, J. J. Powell, Bradford. 2, H. Beldon. 3, Popplewell Bros. *hc*, Wells & Sherwin. *c*, H. W. Hingworth, Idle; C. Carr.

PIGEONS.

CARRIERS.—1 and 2, E. Horner, Harewood. 3, Miss F. Seaton, Leeds. (The whole class highly commended).

POUTERS.—1, Cap. and 2, J. Hainsine, Hall. 3, E. Horner. *hc*, Wells & Sherwin; E. Horner.

ANY OTHER VARIETY.—1, C. A. Pearson, Liverpool. 2 and *hc*, R. Woods, Mansfield. 3, Dr. Binnis. *hc*, G. P. & R. Hackett, London; E. Horner.

OWLS.—*English*.—1, Dr. Binnis. 2, Miss F. Seaton. 3, H. G. Poole, Bradford. *hc*, Dr. Binnis; J. Thresh, Bradford. *hc*, J. Bailey, Bramley; J. Dye, Haxham. *c*, E. Horner.

TURBOTS.—1, 2, and 3, H. G. Poole, Bradford. *hc*, F. Pickard, Pontefract. *hc*, W. Daniels, Rugby. *c*, Popplewell Bros.; W. Daniels.

JACOBS.—1 and 2, J. Powell, Bradford. 3, Dr. Binnis, 3, A. Blakeborough, High Harrogate. *hc*, E. Horner.

TAUMPERERS.—1 and 2, E. Horner. 3, J. Pickard.

TUMBLERS.—*Long*.—1, 2, and *hc*, Dr. Riddiough, jun., Bradford. 3, J. Dye. *hc*, Dr. Riddiough, jun.; E. Horner. *c*, Wells & Sherwin. *Short*.—1 and 2, E. Horner. 3, J. R. Barnes, Bramley.

FANTAILS.—1, 2, and 3, J. F. Liversidge, Newark. *hc*, J. F. Liversidge; E. Horner.

BARDS.—1, Miss F. Seaton. 2 and 3, E. Horner. *hc*, A. Blakeborough; Miss F. Seaton (2); H. Jennings, Allerton.

ANY OTHER VARIETY.—*Long*.—1 and *hc*, W. Lund, Shipley. 2, H. Jennings, Allerton. 3, Dr. Binnis. *hc*, R. Mison; J. Dye. *Short*.—1 and *hc*, W. Lund. 2, Dr. Binnis. 3, E. Horner. *Medium-faced*.—1, Dr. Binnis. 2, W. Lund. 3, H. Jennings. *hc*, W. Bates, Rugby; J. Lister, Keighley. *hc*, B. Rawnsley, Bingley. *c*, Miss F. Seaton.

MAGPIE OR NUN.—1 and 2, Miss F. Seaton. 3, S. Machell, Bramley. *hc*, S. Machell; Dr. Binnis; E. Horner. *c*, Wells & Sherwin.

ANY OTHER VARIETY.—*Long*.—1, Miss F. Seaton (Pain lech). 2, E. Horner. 3, Wells & Sherwin (Swallow); R. Woods; Miss F. Seaton (Pigmy Pouter). *hc*, Wells & Sherwin (Icel). *hc*, Miss F. Seaton (Spangled Icel). *c*, R. Woods (2).

SELLING CLASS.—*Free not to exceed 25s.*.—1, W. Lund. 2, A. Blakeborough. 3, Wells & Sherwin; W. Lund. 3, A. Atkinson, Armley; C. G. Java, Spalding. *hc*, Dr. Riddiough, jun. *hc*, S. Machell; Miss F. Seaton (Tumbler and Magpie).

LOCAL CLASS.—*Long-faced Antwerps*.—1, W. Sutcliffe, Bramley. 3, A. Batty, Bramley. *c*, J. Watson, Bramley.

CANARIES.

YELLOW.—1, S. Hainsworth, Farsley. 2, J. P. Busfield, Farsfield.

MASS.—1, B. Keighley, Farsley. 2, D. Hingworth, Horsfield.

MIXED.—1, W. Cleary, New Witley. 2, J. Heald, Bramley. *hc*, S. Briggs, Bramley. *c*, R. Webster, Bramley.

NORWICH.—1. W. Smith, Birmingham. 2. W. Clegg. *vhc.* J. Benn, Bramley.
 BELGIUM.—*Marked*.—1. G. Gott, Shipley. 2. P. Horn, Farsley.
 LIZARD.—1. D. Illingworth, Hertsford.
 MULES.—1. D. Illingworth.
 SELLING CLASS.—*Price not to exceed 12s. 6d. with Cages*.—1. P. Horn. 2 and 3. W. Smith. *hc.* W. Clegg.

PARROTS.—*Grey*.—1. W. Clegg. *Any other variety*.—1. J. Booth, Armley. 2. G. Longbottom.

RABBITS.

LOP-EARED.—1. G. S. Burton, Beeston Hill. 2. J. Blakey, Driffeld. 3. J. M. Mander, Wakefield. *vhc.* J. Bowman, York; T. Myton, York (2). *hc.* F. Banks, London; G. S. Burton; J. Armstrong, Leeds; J. M. Mander.

SILVER-GRAY.—1 and 3. R. H. Glew, Wakefield. 2. S. Ball, Bradford. *hc.* G. C. Hutton, Bradford; T. H. Dows, Boston.

HIMALAYAN.—1. B. Newsome, Holbeck. 2. J. Firth, Bramley. 3. H. White, Rochdale. *vhc.* A. Atkinson, Huddersfield. *hc.* S. L. Firth, Bramley; B. Newsome.

ANGORA.—1. A. Atkinson. 2. G. C. Hutton. 3. S. Ball, Bradford. *vhc.* J. White, Bramley. *hc.* J. White; T. Garner. *c.* G. S. Burton.

ANY OTHER VARIETY.—1. T. Garner. 2. T. H. Dows. 3. M. Marsland, Goole; G. P. & R. Hackett, London. *hc.* H. E. Gilbert, Rugby. *c.* R. Lund, York; T. H. Dows.

ANY VARIETY.—1. T. Myton. 2. G. C. Hutton. 3. T. H. Dows. *vhc.* F. Banks T. Myton. *hc.* J. Armstrong.

Mr. Hutton, of Pudsey, was the Judge.

THE FANTAIL.

THE Fantail is one of the most attractive of the fancy varieties of Pigeons. In fact, it is almost as well entitled to the cognomen of high fancy as the Pouter, it being as difficult to produce a fine tail and style as a large crop and size. Some writer detractingly says, "Fantails were intended to be trifled over by women and children." He certainly could have had no experience in breeding them. It has been one of my favourite varieties from my earliest Pigeon-fancying, and a few years ago I discarded all others for the sole purpose of experimenting upon the development of a strain of certain colours. Few persons know what a fine bird is; they have become so used to the ordinary shovel-tails, that they are to a measure correct in the idea that the Fans are of but little importance.

The demand for fine birds is, however, increasing, and the dull, vacuous bird, with its bedraggled look, will ultimately disappear before the improvement in good taste. While nothing can be more common and ugly than an ordinary Fantail, so there can be nothing more striking in the Pigeon realm than a small, stylish, high-bred bird. There are several classes of Fantails and fanciers. In the first place, there is as much difference between two of the strains as there is between the strains of Tumblers: one strain being large and coarse, with immense tails; the other, small, refined, and exceedingly stylish. The English partake of the first, the Scotch of the latter characteristics, though in both countries there are individuals who may have preferences for certain of these points. There are also other distinctions beside large and small. The birds may be long-necked or short-necked; the first are the so-called Calcutta Fans, the latter the German variety. Then there are the pointed and the plain-headed. Of these, the pointed are most popular in America, and the smooth heads in England.

Thus we see there are two strains, large and small, and each of these may be subdivided into long and short-necked birds, with or without points in the heads, with large tails and moderate style, or with grand style and moderate tails.

As so much is possible, what is preferable? Many of the most successful breeders pay all attention to the tails, and we see dozens of birds "bowed down beneath the weight of woe," caused by a heavy tail overtopping them, and bearing their breasts towards the earth, like a boat too heavy forward; or else the tail is carried backwards at an angle of 45°, and the bird loses what style it might have by trying to balance itself upon its feet. Other and equally successful breeders go for style, and sacrifice all else for that. These seem to be the two extremes, and our preference is for the latter. Style, by all means; without it the tail is nothing to speak of, though every Fantail must, as a matter of course, have at least twenty feathers in the tail.

Those fanciers who like large tails are not content with less than thirty, and with some thirty-six is the minimum. We have seen a few birds with over forty feathers, and have heard of and read of fifty and fifty-six being counted; and though we have no reason to doubt the report, and deem the thing possible, yet we were not present at the numbering, and, under some circumstances, seeing is believing.

Probably if we had seen we might have learned something, as we did from the fellow who always beat us 3 or 4 inches in the measurement of Pouters. We never could imagine how he did it, until we saw him carefully draw the tape from the point of the beak along the breastbone, and so between the legs to the tip of the tail. We outlived him afterward. With birds of the finest style there are seldom more than thirty feathers in the tail. That number makes a tail of good size and weight, and is easily carried.

The feathers are of two varieties—long and narrow, and short and wide. The longest belong generally to the long-necked birds, the broadest to the short thick ones. The short and broad make the best tails, as there is more probability of their

being well spread, and the birds to which they belong are mostly short-backed specimens.

The feathers of the tail, no matter how many in number, must form about seven-eighths of a circle, and must be so arranged that when the tail is cut off it will lie flat upon the table, preserving its circle without being weighted down. The under tail coverts must be smooth, even, and perfectly straight in position, looking like a leaf placed upon the posterior surface of the fan. The carriage of the fan is of the highest importance, and it should be carried so that the tips of the middle feathers will be directly over the centre of the feet, and touching the head. The fan must not deviate from a right line either towards the right or left, as the slightest lopping is detrimental.

The feathers, above twenty, are set in a double row—that is, it takes about twenty to form a circle, the feathers being a little closer together towards the middle of the tail; after that the extra number go to form the second row. Sometimes a third row is also intimated.

When the birds are bug-infested, the tail feathers are broken down, or caused to look rigged, by the birds picking themselves. A description of the style is very hard to put on paper; there is so much goes to make it up, and there is a vitality about it that dies beneath the point of the pen. To be stylish, the bird must be small; that is imperative. To be large, in proportion to the average size of anything, is to be gross; and in nothing is this more applicable than among Pigeons, especially among Fantails; therefore, it must be small as the Almond Tombler, if possible, and then it outstyles that variety. If it is large it is common, thereby vulgar; but small and stylish, it is a gem, and fit for "women," as the diamond is among stones.

The preferable neck is long and graceful, curved as the letter S reversed. It must ascend from a full, round breast, as symmetrically as the Swan's, and it must be continually in motion. The head is the head of a Dove, with the eye of Venus, for there is an expression about the eye of a Fan that is not observable in the eyes of any of the others; we presume, on account of the incessant motion of the neck, which has obtained for the variety the name of Shaker.

The neck, surmounted by the head, inclines backward, resting against the anterior surface of the tail, or rather just touching it; for if it presses too hard it passes between the feathers, and it becomes a deformity. The incessant shaking is a trait produced by cultivation; it is necessary to good style, and becomes extravagant in well-bred birds when driving to nest. The large-tailed birds do not have it to a great degree, nor do the short-necked German cast of birds; many of the shovel-tails do not have it at all, and when they do it is a burlesque upon good behaviour.

A good idea of what the relative positions of neck, tail, and body should be may be gained by drawing a triangle, the base of which will represent the body of the bird, and the two sides the neck and tail, meeting at the apex. The wings are carried close to the side, the tips meeting behind, beneath the tail, just touching the floor; the feet, coral-red; the eyes, hazel in white birds, pearl in the coloured. The back is an item that must not be neglected; the shorter it is the better, and the more likelihood of the carriage being fine.

The standard colour is white, a pure white with purplish lustre about the neck when shaking in the sunlight. We have spent a number of years in experimenting upon the colours of Fantails, and have bred them of all colours, shades, and combinations. Much can be done with a little care; by forming an idea in one's mind and breeding to it, any composition can be fixed. Thus we have bred black birds with white tails, and white birds with black tails, white birds with red tails, saddle-backs, magpie, &c.; but such birds never equalled in style the pure white. We have seen, and at times have owned some of the solid colours that were equal to the best whites, but they have been very few in number, and are very hard to obtain, especially yellows and blues.

One of the prettiest combinations of colours we have ever seen was in a bred bird from black-tailed stock; it was a pure white with undertail covert deep black.

When we were breeding Fantails our standard was as follows:

1. Style: nervous; bird always on tip-toe; continuous shaking of the neck.
2. Size: small.
3. Tail: Feathers evenly and broadly spread; well carried.
4. Back: short.
5. Feet: coral red.
6. Eye: hazel in white; pearl in colours.
7. Neck: long.
8. Head: plain.
9. Colour: white.

This is an epitome of the points we kept in view. The number of feathers in the tail was a matter of indifference, some of our best birds having but twenty-six and eight. Many were pointed-headed, though the plain were preferred by ourselves; the majority of observers, however, admire the points.

A pair of so-called Calcutta Fans were once sent us. We

placed them in our loft, but were unable to tell any difference between them and the commonest of our point heads.

A way to refine a good strain of Fans is to judiciously interbreed them, culling out the coarsest and largest young ones. One of the finest strains we ever obtained was by matching a rarely good male to his own daughter, and her son to herself. We kept the strain true for several generations by matching odd nests, and then introduced the old bird again; and by crossing his progeny with the established strain, produced far better birds than the originator of the strain. Whenever such a strain shows weakness in points or constitution, care must be taken to invigorate it by the introduction of fresh blood.

Fantails are as good breeders and nurses as any of the varieties. For us they averaged a pair of young every seven weeks all the year round; the loft being heated by a register stove during the winter. Their boxes must be large, 18 by 18 inches, no fronts except a strip 4 inches high along the lower part of the box, to prevent the young from falling out.

There must be nothing against which the tails may be broken. Water to wash may be allowed twice a week; the floor kept sanded; a piece of rock salt (slum salt) where the birds can get it, and plenty of mortar broken into bits smaller than peas. A piece of salt codfish is also considered quite a delicacy by the birds, and they will pick at it for days together.



Fig. 30.—THE FANTAIL.*

The Fantails become exceedingly familiar, and we have had to push them out of the way, when cracking mortar with a hammer, to prevent cracking their heads. We also had a pair build a nest and hatch a pair of young in a corner of the desk behind the inkstand, which the writer was obliged to use daily during their incubation. A favourite position of the unoccupied bird was upon the shoulder of the person at the desk. It is said that familiarity breeds contempt, but in this case it was the reverse, as the birds were very well-behaved birds, and took as much interest in the writing of articles as any of the readers could have done in the perusal of them, and they enlivened many a weary hour of a very weary winter.—Dr. W. P. MORGAN, Baltimore.—(*Pet Stock, Pigeon, and Poultry Bulletin*.)

[The above, taken from this month's New York "Pigeon Bulletin," is, perhaps, the very best article on the Fantail which I ever had the pleasure of reading. It is clearly written from experience, and there is also a freshness about it which is not always to be found in descriptions of Pigeons, authors too fre-

quently following each other in forms of expression. Dr. Morgan speaks of the two heads, point and smooth; as regards England this matter is settled, and a point-headed Fan would never obtain a prize, we deeming that the point utterly spoils the gracefulness of the head. As to the two varieties, the English and Scotch, something has been done recently, for I have lately seen prize birds in England with evidently Scotch blood in them. This I approve, for although the graceful little Scotch bird does not in its entireness find favour south of the Tweed, yet an admixture of Scotch blood would be highly beneficial to the large-tailed English bird. Motion would be added to, style would be given, and the size diminished, with the full tail preserved. Never yet have I seen an engraving which did justice to this bird. Even Mr. Ludlow's pencil has been less happy with this variety than it usually is; but I look for him to do better than as yet he has done, and that he will produce a graceful portrait of this the most graceful of all Pigeons. The Carrier is noble; the Pontre grand; the Fantail graceful. I do not think it well to picture the tail feathers ragged and broken at the end, though we know they mostly are in an exhibition pen; but I have had Fantails for months without broken or rough

* This illustration is copied without acknowledgment from our No. 512, published January 19th, 1871, and is repeated here.—Eds.

tail feathers; but they had roomy boxes, and their full liberty. I agree with Dr. Morgan that white is the best colour by far, and that neither neck nor tail should be coloured, but saddle-back Fans are very pretty, and in them neck and tail are, of course, pure white.—WILTSHIRE RECTOR.

IS THIS A HONEY YEAR?

We have not yet obtained accounts from distant places, but from all I have seen and heard, I believe that 1874 will be better for honey than any of the six preceding years. March and the first half of April were very unfavourable for bees in this part of the country, also the whole of May. This, together with the weak state of the hives, made swarming late generally. In June the weather took a more favourable turn for bees, which have been doing moderately well ever since. From a bee-keeping point of view, rain is much wanted in this locality; we have had one shower only for many months, and that shower did not penetrate more than 3 inches deep. Here we have a thin peaty soil resting on 12 or 15 feet of white sand and gravel. Hence the fields are parched, and white clover is not yielding honey so plentifully as it usually does in similar hot weather. On heavier land where clover is more plentiful bees are doing better. Still all are moving onwards; swarms are filling their hives, and old stocks that yielded them are now pretty well filled with honey. We have turned-out a lot of ours from which we get about 20 lbs. per hive of excellent honey. Though honey-dew appeared on sycamore and oak trees the bees fortunately did not touch it this year. I am encouraged to believe that the honey harvest will generally be large throughout Great Britain and Ireland. Apianists should take notes of observations and results, and send them to the Editors. The practical work of the bee-master is now to prevent swarming, by giving his bees room enough in ekes, supers, and nadsirs.—A. PETTIGREW.

OUR LETTER BOX.

SPANISH COCKEREL'S FACE (*Resurgam*).—If it be true that the bird you name is from really white-faced birds, it will be too soon to condemn him. It is, nevertheless, quite true that the young cocks show the white face long before the pullets, and the bird in question should show it now. The white should first show on the lower part of the face, and then gradually increase. The last spot that remains red is immediately over the eye. This is the same in cocks and pullets.

INFLUENCE OF THE WEATHER (*Doubtful*).—We prefer the extreme heat to either long-continued rain or east wind. We do not believe this late weather to have been injurious. Our chickens have done well all the time. The only inconvenience is they want their water frequently renewed. We think water that has become tepid from standing in the sun is very bad for chickens. We have it renewed four times per day, and the remainder thrown over the grass. Nothing is gained if the vessel is only filled up.

BANTAM CHICKENS CHILLED (*G. W. R.*).—The chickens ought not to suffer from the storm if you will give them some bread and ale night and morning for a few days. If it does not cure them you must give them a strong decoction of camphor to drink, and let them have no other water. If they are ripped in a damp place move them to a dry one, and, above all, choose a spot well exposed to the sun.

POULTRY FARM (*S. G.*).—There is no farm devoted to poultry in all England. Visit Lady Gwydyr's poultry-yard near Ipswich.

DISTILLING LAVENDER AND ROSE WATER (*X. Y. Z.*).—Freshly-picked lavender flowers, 1 lb.; rectified spirit, three pints; macerate for two days, and distil by the heat of a water bath. A few drops of essence of ambergris may be added. For rose water mix 5 lbs. of rose petals with 3 fluid oz. of proof spirit and one gallon of water. Distil one quart only from the mixture.

LINNETS (*Ignoramus*).—When intended to be reared by hand, they should be taken from the nest when about ten days old, or when the tail has begun to sprout. They may be fed on sopped bread mixed with mawseed (poppy seed), and a little hard-boiled egg. Some persons use rapeseed; but if this is employed it should be first scalded and then well-washed to deprive it of its pungency. Rapeseed, however, we regard as much too pungent and oily to be a wholesome food for birds in confinement. Hempseed, of which all birds are very fond, is also too fattening and exciting, and should only be used medicinally. The young, when hungry, will stretch up their heads and gape open their mouths, when the food may be put in a small lump at a time by means of a flattened stick or cut quill. They require feeding often, and care must be taken that their food is never sour. You should have "The Canary and Other Song Birds." It contains fuller directions. For twenty postage stamps you can have it post free from our office.

LEADS ORNITHOLOGICAL SOCIETY.—"May I, as exhibitor at this Society's Show held three months ago, ask, Are we to have our money either for prizes or birds sold? As the latter applies to my case, I shall be glad to know when we may expect value for our property disposed of."—W. G. HENRY."

TAKING HONEY FROM A HIVE (*A. F.*).—The story you have heard about turning up an old hive, placing it upside down at a little distance from its stand, and setting a new one on the board, and that if this be done all the bees will leave the old one and go to the other, is a very foolish one, and should not be believed. The queens of hives thus treated would not leave them, and all the bees that forsook the old hives would be lost. Your better way will be to drive the bees out of the hive into another at once, as the season is far advanced, and help the bees to fill their new hive by a little feeding. The price of one-third of the honey in the old hive will buy sugar enough to enable the bees to fill a new hive with fresh beautiful combs.

LOSING SWARMS (*B. S. H.*).—Your friends in Kent have been very unfortunate in losing five swarms from six stocks, and these stocks are now so full that the bees cover the front of their hives. Probably the hives and supers on them are well filled with honey, and there is but little scope for breeding in them. Your friends should either enlarge their hives by eking,

or drive the bees wholly out of them into empty hives, and then take the honey. No bees should be allowed to hang about the doors in clusters for any length of time. If the bees were driven into empty hives now, and fed a little, they would soon fill them with combs, and become another year more eligible for stocks than the present ones, if permitted to go on as they are. There is no time to lose; the sooner the bees have more room, the better it will be for them and their owners.

BEES' BREEDING SEASON (*C. H.*).—In answer to your inquiry, we have to say that bees generally continue to breed as long as they gather honey. About three weeks after honey-gathering ends most hives will be without brood, and where bees are not taken to the moors, honey-gathering generally ends early in August. If you wish the bees in the old hive to fill the new one with combs, your better way will be to drive them at once, and sacrifice the brood in the black combs. Feeding the swarm in the new hive will cause the bees to build combs, and fill them with brood. If you object to the sacrifice of the brood, one-third of the bees could be left in the old hive to hatch it, then unite to these in the new hive.

HIVES DESERTED (*F. K. L.*).—There is no way of accounting for your bees deserting their hive, if not from caprice. The other day a swarm of ours readily accepted a hive, and at once commenced to build combs in it. It continued at work in this hive for two days, and then deserted it. They swarmed on a bush again, from which they were shaken into another hive, and are there doing well. The deserted hive and combs were gladly accepted by another swarm. It is vexatious to lose swarms from whimsical notions on their part, and this is not an uncommon thing. Many fugitive swarms are seen in this locality, and during this hot weather going in all directions.

HONEY CANDYING (*A. Fisher*).—It is natural for all good honey to crystallise and become solid. The honey gathered from some flowers solidifies sooner than that from other kinds of flowers. If you prefer to eat it in its liquid state, you have only to put it in a oven or on the fire for a few minutes. This will destroy its grittiness for a month or more.

BEES DYING (*A. F. Godward*).—Your account of your bees is quite unprecedented. You say you had "two unusually large swarms of bees on the 9th and 10th, which you hived into Neighbour's cottage hives, and found both swarms all dead on the following morning." We can only suppose one of two causes: Either they were suffocated by the entrances not being open (could this be the case?), or else the hives themselves were poisoned in some way. So extraordinary a circumstance is worth careful scrutiny. We sympathise with your misfortune deeply. Can any of our readers throw light on the cause of this fatality?

BEES IN BAR-HIVE (*West Cheshire Subscriber*).—We find it advisable in using bar-framed hives to affix a piece of comb to every alternate bar. The "Woodbury-bar" has the lower angles rounded-off, with a central rib an eighth of an inch in breadth and depth. This is smeared with melted wax, and generally answers well. It is a good plan also to save old bars which have had the combs regularly worked along them. The foundation of the comb should be left always on these bars. A judicious alternate arrangement of these with new bars in a new hive will secure great compactness in the building of the combs. Half an inch is a good distance from bar to bar, the bars themselves being $\frac{1}{4}$ inch in width. If you write to Mr. Pettigrew, Sale, Manchester, he will, no doubt, gladly show you his apiary.

METEOROLOGICAL OBSERVATIONS,

CAMDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W.; Altitude 111 feet.

DATE.	9 A.M.					IN THE DAY.					Rain.
	Baromet- er at 32° and Sea Level.	Hygromete- ter.		Direction of Wind.	Temp. of Foil at 1 foot.	Shade Tem- perature.		Radiation Temperature.			
		Dry.	Wet.			Max.	Min.	In sun.	On grass.		
1874.	Inches.	deg.	deg.		deg.	deg.	deg.	deg.	In.		
July.											
We. 15	30.130	71.6	63.8	N.	67.1	82.3	59.9	139.0	55.3	—	
Th. 16	30.207	68.0	67.4	E.	66.9	77.2	55.1	124.2	53.6	—	
Fr. 17	30.257	64.7	63.2	E.	65.9	74.3	61.1	123.8	50.2	—	
Sat. 18	30.264	66.1	60.9	N.	65.2	78.8	49.2	122.4	47.8	—	
Sun. 19	30.91	70.2	65.3	N.E.	65.8	86.6	54.4	120.0	53.8	—	
Mo. 2	29.892	74.7	67.1	W.	67.8	90.8	57.1	133.4	57.8	—	
Tu. 21	29.773	69.7	62.8	S.W.	68.5	77.6	58.2	126.6	55.8	—	
Means	30.088	69.3	63.5		66.6	81.7	58.0	126.1	53.5	—	

REMARKS.

15th.—A very fine warm day, rather stormlike, with wind about 6 P.M., but fine afterwards.

16th.—A much more pleasant day than lately, from there being more air and less heat.

17th.—A delightfully pleasant day, and starlit night.

18th.—A very fine day, as, though the sun was hot, there was a cool breeze.

19th.—A very fine hot day, but from there being very little movement in the air the heat was rather oppressive.

20th.—Rather hazy morning, followed by the hottest day this year; towards the evening there was more wind, and the night was much cooler.

21st.—A very fine day, though there was a very short shower at 0.30 P.M., and a cloudy evening, the temperature falling so much as to feel quite fresh and pleasant.

Another week of splendid summer weather, but without those thunderstorms and that rain which usually accompany high temperature. On several days there were indications of the existence of storms in the neighbourhood, but none reached this station.—G. J. SYMONS.

COVENT GARDEN MARKET.—JULY 22.

HEAVY supplies are to hand now in consequence of this bright sunny weather, especially of bush fruit. The demand is also good, and prices have advanced for some descriptions during the last few days. English Pines are now in excess of the demand, and we have to report the arrival of two more cargoes of West Indian fruit. Hort-hose Grapes are very plentiful, but there are very few among them approaching first-class. Very large arrivals of Potatoes, but very little alteration in price.

WEEKLY CALENDAR.

Day of Month	Day of Week	JULY 30—AUG. 5, 1874.	Average Temperature near London.			Rain in 43 years.	Sun Rises	Sun Sets	Moon Rises	Moon Sets	Moon's Age	Clock before Sun.	Day of Year.
			Day.	Night.	Mean.	Days.	m. h.	m. h.	m. h.	m. h.	m. h.	Days.	
30	Th	Royal Oxfordshire Show.	75.3	50.2	62.7	15	22 41	50 47	6 9	20 5	17	6 9	211
31	F		74.9	50.0	62.4	15	24 1	48 7	22 9	19 6	18	6 6	212
1	S	LAMMAS DAY.	75.6	50.4	63.0	19	25 4	47 7	23 9	17 8	19	6 3	213
2	Sun	9 SUNDAY AFTER TRINITY.	75.3	50.9	63.1	20	27 4	45 7	24 9	16 9	20	5 59	211
3	M	Bank Holiday.	74.9	50.6	62.8	19	28 4	44 7	24 8	16 11	21	5 54	215
4	Tu		75.9	50.6	62.8	17	30 1	43 7	25 10	after.	(5 49	216
5	W	Royal Horticultural Society, Fruit, Floral, and General Meeting.	74.5	50.9	62.7	19	31 4	40 7	26 10	2 2	23	5 44	217

From observations taken near London during forty-three years, the average day temperature of the week is 75.3; and its night temperature 50.5. The greatest heat was 92, on the 2nd, 1854; and the lowest cold 31, on the 2nd, 1861. The greatest fall of rain was 1.23 inch.

THE DROUGHT, AND ITS LESSONS.



ALL of us have had some lessons to learn this season, and some of us have had to pay rather dearly for the instruction given. One thing that has been taught more clearly than most others is the comparative inutility of superficial watering. Even the rain we had a few weeks ago, which merely damped 2 or 3 inches of the surface, proved this more clearly to my mind than artificial watering has ever done.

During March and the first week of April we had nice rains which thoroughly satisfied most plants, and started them growing freely till they were checked by the frost. When the rain ceased we suddenly had hot weather, which lasted about a fortnight, and which caused a small portion of the surface soil to become dust-dry. A close observer would see that, although the soil appeared very dry, plants grew very freely without any watering or any special care. The fact is that the soil had dried quickly on the surface, and had become a perfect nonconductor of moisture; and although the atmosphere was very much drier than usual, the soil below the surface was astonishingly moist, and was quite capable of supplying the wants of all but the shallowest-rooting plants. But everybody wanted rain, and after ten or eleven weeks the rain came, enough to satisfy most people—some, in fact, began to be afraid it was too much, but it merely damped the surface-soil 2 or 3 inches deep, and the result was that when the sun shone again away went the recently-received water into the air, and it took with it a large portion of that which was previously locked-up in the earth: and in my humble opinion we were ten times worse off after the rain than before it. And so it is with all superficial watering: if enough is not given to thoroughly wet the soil where the principal roots are, it will always do more harm than good, for, besides the reason I have given, the roots will be attracted to the moistened soil, and will be burned up the first hot day.

Of course it has been found impossible in most gardens to water everything that was thought to require it, and many schemes have been put to the test for economising the water, while some things have of necessity been left to take their chance. It is surprising in some cases what a small amount of difference there is between the health of those plants which have been left to take their chance and that of those which have been carefully tended, and there are cases in which the neglected ones have come off victorious.

Everybody, I suppose, knows that after watering plants, sprinkling a little dry earth over the wet surface prevents evaporation to a wonderful extent. I have had this plan and many others in practice, but the best of all, to my mind, has been covering the surface thinly with chopped wheat straw. I have had most of my flower beds covered in this way for the last month, and they have never required any water since. The plants are growing more luxuriantly than I ever knew them do before. It cer-

tainly looks a little unsightly, but it will soon be all concealed by foliage, and it might if necessary be covered with soil. The grass, too, which was beginning to turn sadly, has been top-dressed with fine soil, which prevents its getting parched, and the first good shower will wash it out of sight. There has been little mowing to do this season.

Rosarians, too, have had something to learn. I hear there are many thousands of plants that will die altogether, and many I have seen look extremely sick. I am not a rosarian, but I grow a few thousand plants on Briars and on their own roots to cut from, and I am thoroughly convinced that Roses on Briars like clay quite as well as they do dung. I have about three hundred, budded last year, and grown in little else than yellow clay, that have not been mulched or watered, and they are the best one-year-old plants I have ever seen. The Briar grows in the stiffest clay in the hedgerows, why should it require light soil and a lot of manure as soon as its roots are chopped-off, and it is brought into the garden?

Speaking of Briars, the seedling Briar is the best, and naturally enough it should be so; it can be planted without much injury to its roots. Flowers cut from the seedling Briar have much greater substance, and last longer after being cut, than those grown in the ordinary way.—WILLIAM TAYLOR.

FLOWER GARDENS IN WINTER AND SPRING.

No. 4.

BRIGHT and fresh and pure is every budding tree and plant in spring-time, when Nature covers the bare-limbed trees with her universal mantle of delicate greenery, when every fertile valley and wooded bank grows daily in beauty, acquiring a fulness and softness of aspect which more than atones for the harsh asperities of the winter, and the pretty simple wild flowers twinkle among the springing grass and dense undergrowth, imparting a finish and charm such as flowers can only do—when everything in animated Nature appears so lovely that one feels the full force and beauty of the poet's exclamation—

"O earth! is heaven more fair?"

It is then that a really good collection of shrubs skillfully arranged exhibits its rich and varied beauty in perfection. The fulness and warmth which passed from the wild woodlands with the winds of autumn has never been wanting here: hence it might first of all appear that a shrubbery would be most admired in winter, and it was probably owing to this that old shrubberies are so frequently found to contain such a superabundance of ever-green forms as to present a tame monotonous appearance. Very little enjoyment is to be derived from long stretches of Laurel, Bay, Box, Yew, and shrubs of a similar character. Shelter and seclusion are, doubtless, more cared for by some peculiarly constituted minds than tasteful forms and pleasing variety: but then this may always be obtained without rendering a scene unpleasantly dull and flat, and wherever shrubs are introduced the fine-flowering kinds should certainly be as conspicuous and

numerous as those having only a symmetrical growth or handsome foliage to recommend them. When this is well done, especially in all groups or belts in or near the flower garden, there is a constant succession of gay flowers throughout the months of spring and early summer, so that when the plants in the flower beds respond to the animating appeals of the warm showers and sunny skies of spring, and assume the freshness and beauty that belong solely to spring flowers, however lovely they may appear, they form but the centre—a most fitting one certainly—of such a scene of floral beauty as can be had at no other season of the year. There are the deep, rich, golden clusters of *Berberis Darwinii*, the lovely pale yellow flowers of *Berberis stenophylla*; *Mahonia Aquifolium* so glossy, bright, and compact in growth, foliage, and flowers; the whole of the splendid varieties of *Rhododendrons*, from the pretty little dwarf *Alpine Rhododendron ferrugineum* upwards to the stately majestics; *Kalmia*, *Ledum*, *Daphne*, *Cytisus*, *Laurel*, *Crataegus*, *Mespilus*, *Arbutus*, *Deutzia*, *Spiraea*, *Weigela*, *Ribes*, *Syringa*, and *Pyrus*, all contributing to the charming display. Some may be arranged in bold groups in or near the garden itself, others standing out singly upon the lawn in all the dignity of select specimens, while the shrubbery borders stretching away in graceful curves converge from the wide expanse of the lawns which they enclose till they literally form avenues of flowers, conveying a lesson which I think those who are content to make long walks pass between low flat "ribbon borders" would do well to study. Yes, study is the proper term, for I am convinced that very little is yet known of the real value of shrubs for decorative purposes, much as they have been used.

All large flower gardens should have some choice shrubs introduced as permanent features in the design, whether it be severely geometrical or otherwise. Whole beds might be filled with dwarf evergreen shrubs that are always ornamental, and which blossom profusely in spring. Take for example the early-flowering *Andromeda floribunda*, with its dense clusters of white Heath-like flowers; followed by the bolder *Andromeda Catesbaei*, with long narrow leaves of a deep bronze colour, and large pendant spikes of white flowers; the pretty but not very common dwarf *Kalmia rosea*, *rubra*, and *nana*, forming neat little compact bushes that in spring are bright with deep pink flowers; the pale lilac blossom of *Ledum latifolium* compactum; *Daphne Cneorum*, with its sweet-scented pink flowers; the white wax-like clusters of *Pernettya angustifolia*; the deep purple bells of *Menziesia polifolia*, contrasting so charmingly with its white variety *M. polifolia alba*; the cheerful and never-failing *Erica carnea*; the *Alpine Rhododendrons*; *Skimmia japonica*, with its clusters of deep crimson berries; *Gaultheria Shallon* and *procumbens*, the first with purple and the last with scarlet berries; the *Berberis* which have already been named, with *E. dulcis*, having its berries suspended from the branches singly by long slender thread-like stalks, arranging the plants carefully in circular beds, surrounding them with a ring of the neat little *Erica Foxii*, planted just far enough apart to exhibit the exquisite symmetry of form for which it is so remarkable. If the bed were upon turf I would fringe the outside with a permanent colony of *Scilla sibirica*; or it might have an edging—and a lovely one it would be too—of French *Gromwell*, the deep blue-flowered *Lithospermum prostratum*. *Cotoneaster microphylla* kept trimmed and pegged also makes a neat edging.

Almost all the foregoing shrubs make fine clumps or beds of themselves, but where the space is limited mixed beds are best; and well arranged with a variety of such interesting plants, they worthily rank amongst the most important of the permanent features of any garden.—EDWARD LUCKHURST.

SPHEROBOLUS STELLATUS.

PERHAPS amongst the whole tribe of Fungi there is not one more singular than *Sphaerobolus stellatus*. It is not uncommon on sawdust, rotten stick, &c., and is sometimes very abundant in Orchid houses on the sphagnum in which the plants are packed. Some years since a certain degree of consternation was excited in Scotland from the walls, labels, &c., being studded with brown specks, the appearance of which seemed incomprehensible; and one of our correspondents has lately reported a case in which the Orchid leaves were similarly studded, each brown speck being the source of disease. In the former case we suggested that the sphagnum should be examined, and it was, as we suspected, the birthplace of hosts of this curious fungus; in the latter case we were not left to

mere conjecture, as we had an opportunity of seeing the little brown balls which caused the spotting.

The fungus at first consists of a globose body, made up of three layers—an external one, an inner delicate whiter membrane, and an intermediate coloured stratum. In the centre is a brown globular body, which contains the reproductive spores. When the fungus is mature the outer coat, to which the inner coat is attached above, splits in a stellate manner; the inner coat is then suddenly inverted, sending out the globose sporangium with great force, which adheres to any substance on which it may chance to impinge. If the size of the sporangium is taken into consideration, the force with which it is ejected is quite surprising. A good figure will be found in Greville's "Scottish Cryptogamic Flora," tab. 158. The intimate structure, however, of the sporangium was not ascertained at the time when that plate was published.—M. J. B.

A MODEL ROSE GARDEN.

DURING the past few weeks I have, as the columns of the Journal testify, been far and wide to see the queen of flowers. I have seen Roses in lordly halls and in exhibition rooms; seen them where they were grown by the acre by those who cultivate for sale, and in the garden of the amateur, whose chief enjoyment they are; have seen them where crowds of admiring devotees were conning over their beauties, or connoisseurs disputing about their qualities. But as I look back on those scenes of enjoyment there comes in some way back to my memory one visit that I paid to a Rose garden that I saw, and which seems to me to deserve the name that I have prefixed to this article; and for many who value the Rose a brief notice of it may serve as an encouragement, and embolden them to attempt what, perhaps, they have hitherto been deterred from doing, owing, as they imagine, to want of space, or time, or money. The garden I allude to was not that of an idle or a wealthy man. He is not of those who have only to say, "I must have a Rose garden," and forthwith the thing is done: some one part of the lordly domain is appropriated to it, and the order goes to Paul, or Turner, or Keynea to supply the flowers; although, as a rule, in large places one sees the Rose not half so well cared for as in the garden of the amateur, nor does the noble owner have a tithe of the pleasure that the possessor of, it may be, a few rods square. It is the garden of a busy man, and its beauty and excellence are owing to the care given in those times which can be snatched from the demands of business. It is the garden of my friend Mr. Mount, who, in the quaint old metropolitan city of Canterbury, himself conducts his business as a chemist, and whose leisure hours are thus given to the pursuit of a hobby which, above all others, is calculated to lighten the cares of business.

Dear old Canterbury! how many associations of one's early days hover round its quaint and quiet streets, its noble cathedral, and shady Close; and how pleasant it is, now when one is descending the hill of life, to again find a pleasure in one's old haunts. Yet is not Canterbury a flower-loving city. It holds no important exhibitions; societies have arisen and fallen, for they have met but scant encouragement; and he who follows the pursuit of floriculture there does it for the love of it, and without meeting much of that true floral sympathy so dear to the amateur; and so the Rose-grower who would like to visit the garden I speak of will, perhaps, find the person he interrogates as ignorant of it as was a York-hire youth of whom I inquired the way to the parish church at Doneaster, who informed me he didn't know, but who, perhaps, could have told me who won the last St. Leger. Not, then, in the aristocratic quarters of the Cathedral Close or the New Road is Mr. Mount's garden to be found, but close by the side of what, at any rate in Canterbury, is not the clear and silver Stour, and in a quarter of the city which, albeit it lies near to the King's School, is not calculated to invite a closer investigation of its peculiarities. Wending one's way through narrow lanes we come to some garden ground close by the river, and there is what I call a model, perhaps some would call it a miniature, Rose garden. The whole space occupied by the garden is but 20 perches, but in that 20 perches there are nearly eleven hundred Roses. The laying-out of the garden is very simple: There is a broad walk which intersects the ground from the entrance to the river—this and the walk by the river are 5 feet 6 inches wide; and on each side of this walk are twelve beds meeting it at right angles. These beds are 3 feet wide and about 60 feet long, divided from one another by walks about 20 inches wide; this allows sufficient

space for getting amongst the growing plants. In each of these long beds there are two rows of dwarf Roses on the Manetti, and occasionally between them, so as to break the uniform height of the plants, a few as standards. It will thus be seen that they are not very large plants; but as each is attended to, they are kept in good shape, and nothing can be better than the foliage. Mr. Mount is very careful as to giving them proper soil, and renews it annually, giving them some fresh nourishment to feed upon, besides affording them a liberal supply of cow manure in the autumn. I saw no trace of orange fungus, and he suffers little apparently from mildew. Although the river runs at the bottom of his garden, he very wisely, I think, does not rely on it for his supply of water, for tanyards and such other abominations do not tend to improve its quality; he has water laid on, and can consequently syringe and water freely.

It would be useless and tedious for me to enumerate the varieties of Roses that Mr. Mount grows. As a careful amateur he will not spend his money on plants of the merits of which he is ignorant; but all the well-known and approved varieties are to be found there, and also many novelties. I saw, for instance, Reynolds Hole in good flower, although it was early in the season, while Alfred Colomb, Mrs. Rivers, which does exceedingly well there, François Michelin, and all the leading sorts were well represented. Along the fence which surrounds it on one side were trained Maréchal Niel and other Noisette and Tea Roses; while a small greenhouse, 20 feet by 12, at one corner had been erected especially in honour of the same class of Roses; and from the fine plant of Maréchal Niel, which is rapidly filling the house, had been gathered over five hundred fine blooms in May. Surely no Rose has ever been so honoured as this has been.

I was particularly struck with the colouring of Mr. Mount's flowers, and this, too, in a season which has not been favourable for high or delicate colouring. He informs me that when they are showing colour he gives them a watering of guano, 1 oz. to the gallon, and a quarter of an ounce of sulphate of ammonia. This, with a good dressing of cow dung in the winter, he considers the best stimulant; he also gives a second watering when the flowers are forming for the second crop, and adds that he should probably do it oftener but for the expense.

Let me add that one great charm of this garden is that it is kept scrupulously clean; not a weed is to be seen, the paths are in good order, and flowers are cut off as they decay; and if in thus giving a brief description of this model Rose garden I can in any way encourage a struggling amateur, I shall not have written this short notice in vain.—D., Deal.

IN AND OUT OF ABERYSTWITH.—No. 1.

NEVER was place more appropriately named than this. *Aber*, the mouth, and *ystwyth*, winding, being descriptive of the situation and of the river; and what a bay that mouth opens into! Cardigan Bay is the Bay of Naples enlarged. And then the mountains, whose feet come up to the wall of the garden where I am writing! Noble and, unlike the Neapolitan, numerous and *not* volcanic. From my window I can see to the south the Strumble Head of Pembrokeshire, and to the north the Silurian rocks of Towyn, and within 100 yards there are many nymphs bathing; these last are more attractive than the distant boundaries, and render it more difficult to write sedately as becometh a reporter of THE JOURNAL OF HORTICULTURE.

However, having moved from the window, let me tell that this morning I set forth to the mother church of this place—Llanbadarn Ffawr. There are 458 places in Wales the names of which begin with *Llan*, which originally meant only a sheep-fold, but was most appropriately transferred to any place having a church. Then *Badarn* is a corruption of *Padarn*. St. Padarn, or St. Patarnus, came here from Brittany and founded a college here in 524. *Ffawr* is glorious, so the parish name is Glorious Church of St. Patarn; and though it does not deserve that title now, it once did, for it once was a bishopric, and its bishop was at the Council of St. Augustine in the year 603. The church has been destroyed by Danes and others many times, and the present structure is not of earlier date than the twelfth century. Over that and its monuments I must not linger for your pages, nor over its ancient churchyard crosses, and its seated Lich-gate. Yes, I will pause here to observe that the path beneath the Lich-gate is ingeniously grated with iron bars, so that when the gate is open straying cattle are afraid to walk over it. Around the churchyard are

unsurpassed fine specimens of Ash trees; and this tree is a usual ornament of the Welsh "God's Acre," it being esteemed in the days of our forefathers a barrier not to be passed by evil spirits. Nor is the prevalence of this tree confined to the churchyard, for it is so prevalent that it may be said to be always found near old residences.

I wandered round the village, and noted that though the Apple crop has failed much in England, it is most abundant here. The Apples cluster down the branches as Onions are roped, and so growing are suspended in the fruiterers' windows in Aberystwith. The Green Gages on standards are also most abundant, and even in the shops here are sold for a halfpenny each.

The market is moderately supplied with all the fruits and vegetables in season, and would be more largely if it were not that the village growers of garden produce come in every morning with basketsful of their commodities.

In returning from Llanbadarn I was overtaken by a sudden rainfall, such as is only imminent in mountain districts, and whilst under shelter I noted the high-crowned-batted women with their baskets of eggs, Potatoes, Beans, Cabbages, and fruit plying to market, whilst some who came from far rode the probably only horse of their homestead, for the farms are either very small arable, or somewhat larger pasture holdings. An old relative of mine, who resided many years not a hundred miles hence, used to tell of the farmers of his early days who rode to market, one with a bushel of Oats, another with the same measure of Wheat, and others with divers kinds of farm produce. They had no money, but wrangled at an ale-house door who should pay the reckoning, and he to whose lot it fell always rode back home another way!—G.

A VISIT TO SCAWBY HALL.

In out-of-the-way gardens of small extent and unknown to fame, one often, indeed nearly always, sees something worthy of note—something good in itself, or a clever hit making it so. All such hits are instructive. I for one have often found in quite small places gardening fully as good and oftentimes better than in the Duke of So-and-so's great place; yet the man who does a little in a large place is in popular parlance a "great gun," while he who does much in a little one is a very "small potato." But the place under notice is not a small garden if it is not a large one. It is the seat of one of the old families of Lincolnshire, the honoured name and title of which have lately become extinct—viz., that of Nelthorpe. Were I to jot down all recollections of Scawby Hall, the successes and failures, the ins and outs, the ups and downs, it would be a very mixed dissertation—in this page a guide, in that a warning. It must be so in any garden in which a man has spent the first seven years seeking knowledge. Such places are never forgotten, and all life long they possess an interest which time cannot obliterate.

My feelings on revisiting the garden were mixed. To see the Roses in their glory, clean, massive, and fine, aroused the latent enthusiasm, and I recognised the very spot where I put in the first Rose-bud. I put it in by stealth, wrong end upwards. Never mind, it grew. And now for the first note on just one Rose, and that Princess Christian. It is a gem of the first water, in form almost perfect, in colour exquisite, in perfume it has only one equal, and that the old Provence Cabbage. Yet this Rose is not popular, it is not seen everywhere; and why? Because it does not bloom freely and with certainty. Ordinarily it did not bloom at Scawby, but instead of the orthodox pruning, the gardener tied down the shoots, and then came the flowers. But the heads became unwieldy, and to some extent unsightly. They must be reduced. They were cut boldly into the old black wood, apparently as innocent of eyes as rusty wire, yet they broke freely, but instead of producing long shoots to tie down again they made medium growth a little over a foot long, and at the top of each a grand Rose. "That's the way," said the gardener, "to prune Princess Christian," and in truth the example was very convincing. But one more note on Roses. In most places of any extent there is a man generally looked to in special matters. Jack was the Rose man. Jack was only a labourer, yet hard to beat at Roses. I have seen him many times bud Briars in his own garden in early summer, tend them into fine heads the same autumn, and sell them for 12s. per dozen. Well, Jack and his master were bothered with a favourite *Gent des Batailles* in a conspicuous position. It would mildew in spite of doctoring and washing. We will presume they put their heads together

to conquer the mildew. They succeeded in a very common-sense manner. They took a trench out round the roots, removed the old soil, and refilled with a barrowful or two of rich manure and fresh soil. The Rose has never been mildewed since.

In tree and shrub planting a great deal was done twenty-five years ago. It fell to my lot to carry them in bundles at the heels of the gardener and drop them into the holes as directed, he mixing the kinds with much care and, as he thought, foresight. How common, in spite of care, to see mistakes in planting trees and shrubs! They look well for a time and give pleasure; but by-and-by—say in twenty years—the error of indiscriminate mixing is seen, and the real difficulty commences of making that look right which was planted wrong. The plan in question is an example, and noble shrubs in the finest health have to be chopped up and mutilated because they are in the wrong places. Many in the background ought to be in the front, and *vice versa*, simply because the planter did not fully comprehend what the effect would be twenty-five years a-head of the date of laying out. If there is one thing more than another demanding thought and care, and, what is more, an intuitive penetration into an effect which can only be realised by the growth of years, it is shrub-planting. It is enough to create a feeling of dejection to see hundreds of shrubs in which one takes an interest, and which had for years looked so well, now, when just in the zenith of vigour, altogether out of place, giving an effect an once sombre and monotonous, and they must get worse year by year or be cut away. That is just what I saw, and it must be confessed I felt and no doubt looked dejected. The feeling, however, was succeeded by elation in observing the case was not a hopeless one. The gardener has worked out a sample of improvement which, if carried out with the same success throughout the shrubbery, will change the scene from what was at once sad and depressing to one of cheerfulness and interest. A thicket of foliage restricting the line of vision by its irregular evenness to a few yards on either hand, is giving way to an infinitely wider scope; and beauty of form, tint, and character is presented to the mind by judicious treatment in the matter of thinning.

Assuredly shrub-thinning is a work of great importance, only a degree less so than planting. It is nothing without a plan and system well thought out before the removal of a single plant or branch. It is necessary to see through several trees at once, and have in the mind a clear impression of what the effect will be when the work is done. If the operator cannot fully see and appreciate the work when it is done, even before a stroke is made, he had better leave things as they are and submit to a great muddle, lest he should make one still greater. Shrubby-thinning, to be successful, demands the exercise of various qualities. The mind must be able to take a wide grasp of the work in hand, and a capacity to single-out of the wilderness certain specimens marked for permanent effect—key-notes to which all the rest are subservient; that is a first condition. There must be discriminating taste sufficient to mark the right ones, and decision of action in removing those not wanted. A dillying resulting in the leaving of two trees where one only ought to stand, ends in the ruin of both. A want of decision in this matter is common to many minds, and to this is traceable much overcrowding and numbers of ill-shaped trees and shrubs. Shrubby-thinning, too, is a work in which by no means too many people must be permitted to dabble; that will inevitably be fatal to any satisfactory finish. It is always an advantage that if a good man commences a work, be it what it may, that same man should accomplish it with as little let and hindrance as possible. Change often ends in chagrin, as it is, unfortunately, not always that the unfinished work of one man will have justice done to it by another. That is a fact well worth being remembered by any prone to change.

Shrub-thinning is generally begun at the front first, and it is frequently a matter of regret on the part of the owner to see one plant after another uprooted, and the whole place thrown, as it were, into confusion for an unpleasant length of time. The practice here would seem to have been just the reverse. A steady preparation was made in the background. Suitable specimens at proper distances were tended as to shape, working towards the front. This might be the steady work of two or three years or more. In the meantime the front row remained nearly the same, and the general aspect of the shrubbery from the carriage-drive was unaltered. Eventually, when the time was suitable, up came what was not required in the front row, other and more suitable specimens being in readi-

ness to put in. This is done quickly, and instead of an impenetrable thicket, an array of single specimens, each having room to show itself, is opened out, the ground between them is turfed, and the transformation is complete. Fancy driving for years between lines of Yews and Laurels grown into something approaching a hedge; go again another year, and see handsome and stately plants not seen before, each one giving effect to the other, and the line of vision increased at the least tenfold. It is a surprise and a success which cannot be gainsaid. It is the steady preparatory work in the background, little or nothing seen going on in the front, to which the success is mainly due. This little example is worth noting, showing, as it does, in a practical manner, how miles of uninteresting drives may be transformed into enjoyable groves, and this in a quiet systematic way, with a minimum of disorder as the work goes on, and giving a maximum of pleasure by, as it were, the suddenness and completeness of the change effected. It is just a question of means and the taste of an able man being permitted scope whether the hidden beauties of many a place shall be brought out and its latent resources turned to account and enjoyed, or remain as in the past—hidden, buried, as if they had no existence.

I cannot dwell at length on other things in this good garden, considering mere description, unless some useful hints are evolved, time not well applied. I would, however, venture to hint on the unwisdom of visitors being hypercritical. Amongst gardeners it is of no use mincing the matter, it is too much the rule. There is too much proneness to find fault, to denounce without taking into account, or troubling to think of, special circumstances or requirements. For instance, Pine Apples are not large here, simply because small fruit are required. But of this fruit I may note one curiosity. A plant refused to "show" last year. In January of this year it was cut off level with the pot and planted again as a cutting. In March it "bolted," and at the end of June ripened a Queen of over 4 lbs. weight. Of the Vines an exhibition grower would say, "too much wood;" but the Grapes are not grown for exhibition, and the fruit is of a character that satisfies, and more need not be said. Here, I believe as everywhere, the more foliage Mrs. Pine carries, the more and better fruit it gives. Midresfield Court ripens admirably in an intermediate house, well up in colour and flavour. What a fine Grape it is! Peaches under glass were abundant; on walls from want of glass the trees have been ruined.

It is particularly pleasurable to contemplate on the presence of old faces in old places. Something, yea a great deal, more than "commercial principles" tie master to man, and man to master, amongst the nobility and gentry of our country. The grey hairs of an old servant or labourer are an honour to the place on which he has spent his strength. Happily they are not always the signal for his being cut adrift. If by advancing years there is less of animal strength and activity, there are the counterbalancing qualities of faithfulness, trust, reliability, and an experience in anticipating wants seldom present in youth. Many an old garden labourer knows infinitely more in kitchen-garden affairs than a freshly furnished and accomplished young gardener just "out of the houses." Well it is for these old men who have won respect, who have been fairly dealt with, and have dealt fairly, and who have no real cause to loosen the existing confidence by listening to the seductive eloquence of those who, by ambition, selfishness, or a yearning after popularity, would (let us hope unintentionally) sow seeds of discontent where content has long prevailed, and in their efforts for good create evil, by holding out hopes which cannot be fulfilled.

The garden, I must add, reflects much credit on Mr. McGillivray.—J. WRIGHT.

LOOK TO THE POTATOES.

I HAVE to-day (July 21st) been through the late-keeping Potatoes, and find the whole of them vigorous in growth, perfectly healthy, and without a trace of disease. The baneful effects of the drought are distinctly visible in the smallness of the tubers, and I am afraid the crop is advanced too far for us to hope for much increase either in weight or bulk. There will be frequent inspections during the ensuing three weeks, and judging from its forward condition, the entire crop will probably be taken up and stored by the second week of August. Last season's experience increased my confidence in the great value and importance of early lifting. The Victorias that were lifted on August 14th and 15th last year continued perfectly

sound and excellent in quality until the end of June in the present year. Myatt's Prolific Ashleaf, Royal Ashleaf, Rector of Woodstock, and Yorkshire Hero are all perfectly sound, and they are already taken up, and the seed put on end in single layers upon the store-shelves, where it will remain undisturbed till next planting season. These shelves are in tiers 9 inches apart, one above another, and as the bottoms are of laths half an inch apart, the air circulates freely among the seed. Let me here repeat an important piece of advice, Never leave seed Potatoes laying out of doors to become green, but always put them on the store-shelves immediately after they are lifted. To this may be added another that is even more important, Lift your Potatoes early, and defy the blight.—EDWARD LUCKHURST.

ROSE HEDGES IN THE SOUTH OF FRANCE.

M. ANDRÉ writes as follows in the "Illustration Horticole":—"On our last excursion from Marseilles to Genoa we were greatly struck, as anyone seeing them for the first time would be, with the magnificence of the Roses all along the Mediterranean shores. The Rose hedges, and the espalier Roses especially, offer an indescribably gorgeous sight. Under the genial influence of the warm sun of Provence, from the Corniche to the extremity of the Riviera di Ponente—that is, as far as the Gulf of Genoa, and protected to the north by the mountains, which gradually slope down to the seacoast, Roses attain the size of Pæonies, and develop a depth and brilliancy of colour and a richness of fragrance of unusual intensity.

But this is in part due to another cause, or rather two other causes, which lead to the same result, the main point being the choice of suitable subjects for stocks to graft upon.

These stocks are *Rosa Banksia* and *Rosa indica major*.

The Banksian Rose presents three varieties—namely, White Banksian, producing a profusion of small white flowers, scarcely so large as those of the double-flowered Cherry, and of a most delicious fragrance; Yellow Banksian, with still larger clusters of small, nankeen-yellow, scentless flowers; Chinese Thorny Banksian, flowers less numerous and about three times as large as in the two preceding, and of the most grateful odour. These three forms attain an unsurpassable vigour in this region. In two years one plant will cover an immense wall, the gable of a house, or climb to the top of a tall tree, from which its branches hang like flowery cascades, embalming the air around with a rich perfume during the months of April and May. Now, if these be taken for stocks upon which to bind some of the choicer Teas, Noisettes, and Bourbons, the growth of the latter will be prodigious. The stock should be two years old, having well ripened though still smooth wood. In this way such varieties as *Gloire de Dijon*, *Maréchal Niel*, *Lamarque*, *Safrano*, *Chromatella*, *Aimée Vibert*, *Le Pactole*, and all the Teas, attain such dimensions as to be no longer recognisable.

Rosa indica major is almost naturalised throughout the whole of this region. It possesses the additional claim to favour of flowering nearly all the winter, forming beautiful hedges of dark green shining foliage, from which thousands of clusters of lovely flowers rise, of a tender delicate transparent pink, or almost pure white, with a brighter tinge in the centre and at the tips of the petals. This Rose is an evergreen, and makes an excellent stock for grafting or budding.

It is either planted in nursery beds, where it quickly throws up a stem suitable for standards in the same way as we employ the Dog Rose, or in hedges, and left to its naturally luxuriant growth to produce its own charming flowers in rich profusion; or rows of cuttings are put in where it is intended to leave them, and subsequently budded with some of the varieties of the diverse tribes we have named.

We admired it most when treated in the manner last indicated. In the gardens of the Villa Lizerbe, Nice, the residence of M. Cazale, we saw three or four long hedges reared in this way; and on the 6th of May they presented a most gorgeous feast of flowers. To give only one instance, we plucked at random a flower of *Gloire de Dijon*, which measured $5\frac{1}{2}$ inches in diameter, or $16\frac{1}{2}$ in circumference; and it would not have been difficult to find even larger flowers.

This is how the intelligent head gardener, M. Guichard, obtained such splendid results: The soil where the hedge was to be made having been moved to the depth of more than 3 feet, was planted towards the end of winter with cuttings of well-ripened wood of *Rosa indica major*, about 9 inches apart. They were left to grow as much as they would, and not cut back at all. In August they were budded nearly close to the

ground, and in the following year already they formed a hedge producing flowers abundantly. Iron wire stretched upon slender bamboo stakes is sufficient to support the branches. Pruning is only resorted to to keep them in shape, remove exhausted branches, and shorten gross shoots. This Rose is also easily propagated by pegging-down long branches or slightly covering them with earth, cutting them asunder at the joints when rooted, and thus obtaining as many plants as there are joints.

By this very simple process M. Cazale has succeeded in raising his Rose hedges of incomparable beauty. From these hedges waggon-loads of flowers might be cut every year. It is the varieties which flower in winter, amongst which *Safrano* is the very best, that are here propagated on a large scale. We particularly noted *Souvenir de la Malmaison*, *Chromatella*, *Gloire de Dijon*, *Général Jacqueminot*, *Maréchal Niel*, *Safrano*, and *Gloire des Rosomômes*. A large number of others grew and flowered equally as well as the foregoing. In conclusion, we recommend *R. indica major* as a stock wherever the winters are not very severe, and where earthing-up or covering around the base is sufficient protection to secure the advantages of this vigorous-growing species for this purpose.

PROPAGATION OF HARDY TERRESTRIAL ORCHIDS.

A CORRESPONDENT, "B. B. B.," wishing for information, we sent it to a good authority, and he replies:—

"I should be very pleased if I could inform your correspondent how to propagate the Bee Orchis, or, as I suppose he means, *Ophrys apifera*. It is what I have never been able to accomplish myself; but it will sometimes propagate itself by two new bulbs in one season instead of one, and that I believe is the way in which it increases itself in its natural state—by small spawn. I have never yet found a seedling, nor can I get it to vegetate from good seed, although you get good pods from most of them. Some terrestrial Orchids will make three, and I have known *Ophrys bombyflora* make four bulbs in one season; but there are very few (under cultivation) that make more than one. When time permits I shall be happy to send you an account of my method of growing them."

[Pray do.—EDS.]

LARGE VINE AT THE VICEREGAL LODGE, DUBLIN.

It is now some years since we first noticed and detailed the history of what is now widely and familiarly known as "The Large Vine at the Viceregal Lodge." The life story of this very remarkable Vine was then a short one; for he it remembered that though a wonderful Vine, it is very far from being an old one. In fact, a decade had not then nearly passed from the time Mr. Smith took it—a poor sapling, struggling for life—in hand. Even then it was a horticultural wonder, filling a curvilinear lean-to house, some 70 feet in length and 15 wide, and carrying a magnificent crop of Grapes, quite a picture to look at. Since that time the house has been made a half-span, and has had its breadth thereby considerably increased. Large increase of space was thus afforded for further extension, and so skilfully was the Vine educated to avail itself of it that it soon entirely occupied it; and the long lines of luscious clusters hung as thickly there as in the older portion of the house. It may be as well to mention here, for the information of those who have not seen this Vine or remember the particulars previously given, that the stem enters at one end of the house, and from this seven main rods are conducted horizontally and equidistant from one another, in perfectly straight lines, till further progress is arrested where they reach the opposite end of the house. The wood of these main rods is about the thickness of a ship's cable, and the spurs on either side disposed with the utmost regularity, each rod forming a perfectly straight and strongly-defined line fringed with a double row of beautiful stout green foliage, from among which depend on either side, as if strung with almost mathematical accuracy, the long lines of sable pendants which are the crowning glory of the Vine.

It is now just about eighteen years since Mr. Smith undertook the education of what was then a weakly plant, and is now a giant in its way, and we are inclined to think, taking it all in all, one of the finest examples of successful Vine culture, and perhaps the very best example of what is called the extension system

to be met with anywhere. Year after year, without a single blank, it has borne splendid crops of highly-finished fruit, and the present year's crop forms no exception save in one respect, and that is that as regards size of bunch, berry, and aggregate weight it will be the finest which this noble Black Hamburgh has yet ripened. The bunches number probably four hundred, or thereabouts, many of them we calculate will weigh 3 lbs. or so, and the average will be 2 lbs. or over; the aggregate weight of crop, we suspect, little short of 7 cwt. The bunches are just now colouring, and by-and-bye, when they put on their full sable habiliments and rich bloom, the big Vine will be a sight worth looking at—a triumph of cultural skill, upon seeing which he would be cold and phlegmatic indeed who would withhold from Mr. Smith his warm appreciation of his skill, and the remarkable results of it before him.—(*Irish Farmers' Gazette.*)

CITY OF LONDON FLOWER SHOW.

Few people would suspect that in the immediate neighbourhood of the Royal Exchange, where a foot of ground commands the price of an acre elsewhere, there exists a large space which has been in the possession of the Drapers' Company for the last three hundred years or more, and which is kept as a garden. Here with grass growing, fountain playing, and shading trees, was held on the 23rd inst. the City of London Flower Show, an exhibition of window plants grown within the limits of the City, and which had been in the possession of the exhibitors three months before the Show. Prizes were offered for such subjects as are commonly grown in windows, as Geraniums, Fuchsias, Nettle Plants (*Coleus fruticosus*), Myrtles, Musk Plants, Creeping Jenny (*Lysimachia Nummularia*), Begonias, Ferns, Orange trees, also for window boxes and Fern cases, &c., the whole divided into twenty-five classes, in most of which the competition was very creditable, and he it noted some of the best plants were those which had been longest in the possession of the exhibitors. Thus, Mr. John Moss, who, we believe, belongs to the City police, came in first for Fuchsias with a plant which he had had for five years, taking also a like position for a Geranium. There were some nice little plants of Musk and Creeping Jenny from several exhibitors; a few Myrtles, and Orange trees reared from pips, which were five and six years old, while the contents of the Fern cases were in all the pride of health, a circumstance, however, which must be partly ascribed, not so much to the care of the owners as to the exclusion of the smoke. The Royal Horticultural Society's silver medal was given to that from Mr. C. Shackel, eight years in the exhibitor's possession, whilst a larger one owned by Mr. Brooks for six years was an excellent second. Dahlias in pots from Mr. Rose gained a bronze medal, and a like award was made to Mrs. Weeden for Houseleek. The plants shown for competition were mainly confined to one tent; some, however, were placed in another, which Messrs. Paul, of Cheshunt, and Mr. Turner, of Slough, rendered quite brilliant with fine collections of cut Roses, and along with these was a very ornamental group of ornamental-foliaged plants. A third tent was reserved for H.R.H. the Marchioness of Lorne, who distributed the prizes. It is a matter of surprise that so large a piece of ground as the Drapers' gardens in the very heart of the City, should have escaped so long the invasion of bricks and mortar, to be in which most of the open spaces about the metropolis have had to give way, and many will regret that it is likely to share the same fate; but this little Show has drawn an amount of attention to the existence of these gardens, and the probability of their destruction, which would never otherwise have been given, so there is some likelihood of their being preserved for the public benefit.

CHELONE PATEATA ANTIWERPENSIS.—This fine old herbaceous plant is now seldom or never seen, but it is one that would give satisfaction everywhere. It is a summer-flowering plant of long duration, and has fine handsome spikes of scarlet flowers, which are produced in abundance in a good heavy soil. The plant requires dividing and replanting every other year in fresh soil, like most other hardy plants.—H. KNIGHT, *Floors.*—(*Florist and Pomologist.*)

WILDERNESS ROSES.

For this idea I am indebted to Professor Owen, who, wishing to ornament a wild part of his ground full of thorns, grass, and weeds, adopted the following plan, which, I am inclined to think, is quite worthy of record. Large sewer-tubes, rejected on account of flaws in the enamel lining, were sunk vertically in the pure gravelly soil to within an inch or so of the surface, and filled-in with loam and manure, and a Rose planted in the centre of each. The soil in the tube was kept free from weeds, and the running grass and other weeds outside were prevented making their way into such good quarters. To give

the Roses extra vigour, some manure water was given to them occasionally in the summer. The effect of Roses growing in the highest state of luxuriance in a wilderness was most charming. The inside diameter of these tubes is 16 inches, their length 30 inches, so that they go below the roots of weeds, which would otherwise soon devour the rich compost in which the Roses delight.—(*Rivers's Rose-Amateur's Guide.*)

FUCHSIA CULTURE.

To cultivate successfully a few nice specimens of the Fuchsia is almost invariably the humble ambition pervading all who can find means to accommodate them. No matter what social position of life they belong to, the love of flowers exerts a magical influence which sways these likings in all alike. And the Fuchsia, seemingly, is especially endowed with attractions which have both secured our fond regard, and gained for itself the position of a general household pet.

The Fuchsia is a native of Chili, and was introduced into this country in 1788. The only species in cultivation at that period is still known as *F. coccinea* (the Scarlet Fuchsia); later on, in 1796, appeared *F. lycioides* (the Boxthorn Fuchsia); and the next to succeed it was *F. gracilis*. For a number of years subsequent to their introduction little improvement took place by means of hybridising these species, and their proper culture was but indifferently understood, the custom then being to raise plants from seed to take the places of worn-out ones, and the treatment practised to winter them in the hottest part of the bark stove, which practice is the very opposite to that we now follow.

Propagation by Seed.—Under this head little need be said. Sow in July in well-drained pots, and place in a cold frame. Keep moist and shaded, without superabundance of air, which retards germination by drying the soil, nor is there anything gained by repeated waterings. All that is required is to keep the soil constantly but moderately moist, and, to prevent sudden evaporation, cover with a hand-glass until the seedlings appear above the soil, when the glass should be gradually raised, a little more each succeeding day, until it is considered safe to remove it altogether. By the middle of August the plants will be in fit condition to plant singly in small pots. After potting, they ought to be returned to the frame, or put on a shelf in a greenhouse near the glass, and well attended to with water. Little more is required of the cultivator except shifting them into larger pots when they require more root room, until the succeeding February, when they should be partially freed from the old soil and repotted into larger pots. Such an aspect and situation as a shelf just recommended is a suitable place to winter them, seeing they would suffer, if not die, in a cold frame in winter.

Culture from Cuttings.—The proper method to follow to secure strong early cuttings is to cut-back in the autumn the old plants, leaving a spur with an eye on each lateral shoot of the preceding year's growth. Place these in January in a bottom heat of about 65°, and keep close and moist until they break. Encourage the early growth by dousing daily with the syringe, and keep their roots rather moist than otherwise, until the shoots intended for cuttings are matured. Then the stoutest should be taken, neatly dressed, and inserted singly into thumb-pots in a compost of leaf mould that is well reduced and silver sand in equal proportions, adding a little sifted loam to afford consistency to the mixture. The old plants may be moved to a cooler house, and their late quarters appropriated for these cuttings. Leave no time to have them plunged closely and neatly in the bed, and water them frequently; have no fear of their damping, but shield them from excessive sunshine by means of light shading.

In the course of a fortnight, most of them will have rooted; but let them have time to show their roots round the ball before repotting is performed. The soil to be preferred for all subsequent pottings should consist of three parts friable loam, the more turfy the better, one part partially dry and well-decomposed cow droppings, and a little silver sand; sift through a half-inch sieve, and shift them into 4-inch pots.

Potting.—There is much difference observed in the operation of potting. Some leave the soil loose, comparatively speaking. My principle in potting, generally, is to drain well but not rather firmly, and my reasons for so doing are two important ones. First, it is natural to suppose, when compost in a pot is left loose, that the moisture is more suddenly exhaled; and it is as reasonable to conclude that when these rapid exhalations take place, the waste therefrom must be sus-

tained by frequent supplies of water, to prevent the plant suffering. These frequent, and at times immoderate waterings, tend both to wash the strength out of the soil, and to create too succulent a growth. The second reason bears upon the waste from severe evaporation; but both evils very much depend upon the nature of the material in which the pots are plunged—should that be sand the evil is the greater; while leaf mould, or any other material containing organic matter that is constantly undergoing decomposition, balances the waste by the amount it throws into the atmosphere, and what penetrates by the pores in the sides and bottoms of the pots.

When the potting is accomplished, replace them as they were, and attend to them in a similar way as before. The habit of the plant will by this time commence to exhibit itself by laterals appearing, in some cases regularly disposed on the upright growth.

Those plants whose appearance proclaims them to be dwarf and inclined to branch freely must not be pinched, but rather endeavour to get them into height; others which indicate a contrary tendency should be checked by pinching-out the extreme point. These varieties that are shy growers may be thrown to the rubbish heap. There are plenty with good flowers, and other desirable properties, without them.

Continue thus to nurse the young plants by supplying larger shifts of pots when each succeeding size is filled with roots; afford fresh air by ventilation when the weather outside is mild enough to allow of airing. Shower water over the floors on sunny days to prevent aridity in the atmosphere, which is favourable to red spider, and withering in its effects on the tender leaves of the plants; and further, to maintain humidity, syringe their foliage in the evening after hot sunshine. Thus tended until the end of May, fine plants will repay the attention, and they will now be in a condition to be transferred to a situation less heated, there to harden their wood so that flowers are formed.

The greatest success, as regards the amount of flowers produced, occurring with the writer, was accomplished by this means: After having managed the plants up to the latter end of May as described, they were then stationed in a deep frame, and stood on boards to prevent worms from getting into the pots. The entire frame was next raised on pots 12 inches above ground, which at the time was done to raise the sashes above the tops of the plants, with great fear and regret that we were obliged to do so, not supposing that it would turn out to the benefit of the plants; but it did. I have never had such a profusion of flowers on any occasion when this plan was not carried out. After having arranged the plants in the frame, the sashes were put over them close down, and the remaining attention they had from our hand was water when necessary, adding to the water manure as soon as they had rallied from the temporary shock occasioned by the rather extreme change of quarters; and in the hot days of June the sashes were raised, so that the air was allowed to float amongst the plants at will. Early in July these plants were staged, where they soon opened their flowers, and an uninterrupted supply was sustained on the plants up to Martinmas. We have had larger plants produced, and with greater pretensions to finish in form in the same time it took to grow them, but never had better flowers or more of them.

Having thus shown that abundance of air united to the unshaded sun's rays is the effectual means towards the end required, let us conclude by hinting that staking the plants as soon as they incline to droop from their own weight must be seen to, and that the leading or main growth should be constantly tied as they progress, and any unruly straggling shoots cut back before the plant is hurt by their rankness of growth, as is sometimes the case. Finally, as the plants get worn-out and advance to ripeness, gradually withdraw the supply of water, and ultimately withhold it to what is merely sufficient to keep the plants fresh, and store them in a corner of a cool house where frost is kept out. Now they are safe to show returning signs of action in February or March following, at which period they require to be shaken out and their roots pruned back, and repotted in fresh soil, to prepare them for a new season's duty.

SELECTIONS OF VARIETIES.

DARKS.—*Avalanche*; this has a most handsome habit of growth, and requires no pinching; flowers double, rich carmine, red tube and sepals, corolla dark velvety. Champion of the World should be grown for its immense well-proportioned flowers, but its habit is no recommendation; double. Henry

Williams cannot be surpassed as a dark double *Fuchsia*, either for habit or quality, in its blossoms. *Exquisite*, another double, whose qualities quite sustain its name; tube and sepals shining deep crimson, corolla purple, streaked red. *Gipsy Queen* is an exceedingly telling dark double, every way deserving a place. *Marksmen*, a dark double of great merit, both in flower and as a grower. *Beacon*, tube and sepals shining rose, with rich carmine corolla; fine single. *Crown Prince of Prussia*, habit dwarf, vigorous, flowers dark glossy, of extra form and substance; a single of the foremost merit. *Enoch Arden* still ranks in the van, and is distinct from its peculiar double corolla. Generous, this is a worthy variety, very distinct; its sepals, tube, and corolla are all about one shade of rose, inclined to pink; its corolla is of the lightest hue. *Killiecrankie* cannot be dispensed with, its beautiful almost black satin corolla gives it first distinction. *Roderick Dhu* is another that will stand criticism, and is likely to live in favour; its sepals are salmon-marked and tinted red, and its corolla of light blue is, to say the least, striking to look on. *Weeping Beauty* is a modest flower, drooping in habit, but of excellent build; sepals coral red, corolla bluish purple, of extra expansion.

WHITES.—*Arabella*, tube and sepals white, corolla rose. *Elegantissima*, old, but not likely to be rejected for some time to come; its neat habit, and delicate flowers provided in such profusion, make it proof. *Enchantress* has a double white corolla, and is quite a beauty. *Rose of Castille*, fine. *Fairest of the Fair*, white tube and sepals. *Leah* has very large drops, tube and sepals glossy white, corolla purple crimson. *Heather Bell*, a neat flower; tube and sepals white, corolla rose-tinted lake. *Minnie Banks*, a lady which is too good to be forgotten.

SINGLES WITH WHITE COROLLAS.—*Delight*, this is one of last year's, and is not easily surpassed; sepals coral red, broad, waxy, and well reflexed; corolla expansive, deep, regular, and of pure white; habit neat, of moderate vigour. *Conspicua* is conspicuous for its vigorous growth, good habit, as well as the multitude of pretty flowers it produces; sepals deep red, corolla white. *Mrs. Ballantine* is a flower of great beauty, produces flowers almost continually all the summer and autumn months, but the habit is weak, though in form no complaints must be uttered against that. *Lurline* has its white corolla tinted violet; good. *Picturata* is also good; so is *Princess of Wales*, but its white corolla is double, like *Empereur des Fuchsias*.

VARIEGATED SORTS.—*Cloth of Gold*; a lovely variegation of golden yellow divides the leaf of this variety; it is rather difficult to grow. *Pillar of Gold* is more vigorous and compact in habit, though not so bright in its variegation. But the cream, as a variegated sort, is *Sunray*; it may be called a tricolor, having as many distinct shades, which are white, russet, crimson, and bronze; habit splendid.—A. KEAR (in *The Gardener*).

NOVELTIES IN THE ROYAL GARDENS, KEW

THE flowers are opening on the magnificent panicle of *Agave americana* that made its first appearance four months ago in the Succulent house. It is now high above the roof on the outside, and is a conspicuous object from the surrounding lawns. From the base of the plant to the apex of the panicle measures 22 feet, and from the lowest branch 9 feet 4 inches. Its diameter is $4\frac{1}{2}$ feet. The leaves that once spread 12 feet from tip to tip are now shrunk and hang down, the sap having gone to the inflorescence. Its exact age is not known; it is, perhaps, between seventy and one hundred years old. It is a slight deviation from the usual form of *A. americana*. A most important beverage is obtained from this species in Mexico. The inner leaves are cut out just when the flower-stem is ready to rise. The juice thus obtained is fermented, and called pulque. It is agreeably sour, and those who can overcome its disagreeable smell of putrid meat are said to prefer this to all other liquors. From it is manufactured a very intoxicating brandy. Another important product is the fibre obtained from the leaves. In the Museum are various articles manufactured from this material. It is very tough, and is used for making twine, ropes, and paper. Humboldt mentions a bridge in Quito of more than 130 feet span, of which the main ropes, more than 4 inches in diameter, are made from the *Agave* fibre. The roots are diuretic and antispyllitic, and are even brought to Europe mixed with sarsaparilla. The juice of the leaves evaporated to a thick consistence, is said to be an excellent substitute for soap. *Pedilanthus tithymaloidea* var. *variegata* is a new plant, and though of stiff erect habit, may

doubtless be managed so as to be of considerable value. It was imported from India, where it is largely used for table decoration. The leaves are broadly ovate with a wavy margin, sometimes inrolled; the larger proportion of the leaf is creamy white; the green part is irregularly disposed in the centre, or, as frequently happens, on one half only. The plants should be grown in well-drained loam. They may be cut back so as to produce branches. It is also a useful practice to pot a few rooted pieces together, and thus make a good specimen. Cuttings of any convenient length strike easily. The ends should be allowed to dry before insertion; each one should have a small pot, be placed on a shelf near the glass, and receive but little water until roots are produced. *Pedilanthus* is closely allied to *Euphorbia*. It is chiefly distinguished by the involucre assuming the form of a shoe; hence the generic name. At the cool end of this house a plant of *Arundo donax*, "the largest Grass of New Zealand," is extremely handsome (see page 78 last week). It is in a 16-inch pot, and has sixteen panicles. It is more graceful and delicate than the Pampas Grass, and may be considered to take its place in the conservatory, for the decoration of which it must not be forgotten. It lasts many months in beautiful condition. Potted in rich turfy loam it does well. When growing it should stand in a pan of water.

In the Cape house in flower is the new and curious *Gladiolus dracocephalus*. The perianth measures about 2 inches across; it is yellow, and very thickly covered with small reddish purple spots; the three lower and smaller segments are green towards the base. The scape is about ten-flowered. *Ornithogalum thyrsoides* is a good species for conservatory decoration. It bears a fine thyrsoid raceme of large white flowers, with dark ovaries. One bulb only should be grown in a pot. The soil should consist chiefly of loam. *Ixia retusa* is very neat and pretty. It bears numerous small flowers on slender branching stems. They are pale pink, with a ring of darker colour in the centre. *Sparaxis pulcherrima* bears pretty white and pink bell-shaped flowers, pendulous from a tall stem.

In the Orchid collection the beautiful *Dendrobium sanguinolentum* is flowering freely; one of the clusters is composed of fifteen open flowers. They are light yellow. Each segment is tipped with deep rose, forming an elegant contrast; in a few days the yellow changes to pure white. It flowers almost continuously, and should be more cultivated than at present. *Mesospiridium vulcanicum* reminds one of *Odontoglossum roseum*; it is very similar in habit and colour. There are three representatives of the beautiful and extraordinary genus *Stanhopea*:—*S. inodora*, with yellowish-white flowers, excepting the orange-coloured base of the labellum; *S. tigrina superba*, which is larger and finer-coloured than the species; and *S. bucephalus*, with large richly-coloured flowers, orange with dark wine-coloured spots. *Ionopsis paniculata* has a graceful panicle of bluish flowers, with rose-coloured lines on the labellum. *Promenaea xanthina superba* is very pretty. It is about 4 inches high. The leaves are greyish, and the flower similar in colour to *Cattleya citrina*. It is about 2 inches across. *Sarcanthus rostratus* is interesting, with pendulous spikes of small prettily-marked flowers. The buds resemble the head of a bird having a large broad bill.

At the Rockwork the South African *Berkleya* (*Strobilaeus*) *purpurea* is very striking. It is a handsome composite 3 feet high, with a single stem bearing several pale lilac or purple capitula 4 inches across. The leaves are narrow, with numerous prickles on the sinuose margin, decurrent, covering the stem with longitudinal wavy plates, also prickly. It is, perhaps, not quite hardy, but will do well with frame protection. Seeds offer the only ready means of propagation. *Campanula Raineri* is a rare and beautiful species from Italy. It is about 3 inches high, bearing large dark blue flowers, one on each stem. They are similar in size and form to those of *C. carpatica*. The Himalayan *Androsace lanuginosa*, considered by many difficult to grow, is here flowering freely. From its long trailing stems and silky leaves it is quite distinct from the other species in cultivation. The inflorescence, both in colour and form, much resembles that of *Primula farinosa*. It perhaps does best so planted that the stems trail over stones, and not in contact with soil. *Xiphion filifolium* is a rare species from Spain. In this instance the colour is a beautiful blue, like some of the tropical *Nymphaeas*.

ROYAL HORTICULTURAL SOCIETY.—Now that the London season is rapidly approaching a close, we record with satis-

faction that since the May meeting no less than thirty-three new Fellows have been added to the Society's roll of members.

FLOWERS FOR OUR BORDERS.—No. 37.

SKIMMIA JAPONICA.—JAPANESE SKIMMIA.

SKIMMIA JAPONICA was first discovered by Thunberg in Japan, but it is found also in China and the Himalaya. According to M.M. Siebold and Zuccarini, it grows throughout Japan among the mountain forests, but always in scattered specimens; from which circumstance it is comparatively rare. It was found by Siebold near the port of Nangasaki, about 1200 feet above the level of the sea. In the wild state it scarcely exceeds 4 feet, but the cultivated plants are said to attain a greater height. It is of very compact growth, the lower branches being somewhat procumbent. The foliage is thick and fleshy, of a rich deep green colour, 5 or 6 inches long by 1½ broad, pointed and tapering at both ends, smooth on both sides, and disposed in tufts of three or four each. They are said to remain attached to the plant three or four years, and their age may be distinguished by the length of the interval between the different groups.



Fig. 31.—*Skimmia japonica*.

The flowers, which appear in April and May, are of a pale greenish yellow tint, and are disposed in dense terminal panicles; occasionally the buds have a pale tinge of rose just before expansion. They are deliciously fragrant, especially in the evening, the odour resembling that of the *Daphne indica*. The same plant produces both perfect and imperfect flowers—that is to say, flowers containing both stamens and pistil; others producing stamens only; and a few in which these are abortive, the pistil alone being perfect. The berry is at first fleshy, but afterwards becomes a dry four-celled fruit, with cartilaginous cells, each containing one pendulous seed. The berries are ripened in October, and remain attached to the plant during the greater part of the winter, rendering it a highly ornamental object, whether cultivated in the open ground or in pots for the orchard house and conservatory.

It may be increased without difficulty by cuttings under a hand-light, as well as by seeds, which should be sown as soon as gathered. It flourishes best in a mixture of peat and loam but does not refuse to grow in ordinary garden soil.

Though hardy in average winters, it is said to suffer in severe ones, unless planted in a northerly exposure; the influence of the sun's rays being more fatal than frost.

Skimmia japonica is one of Mr. Fortune's numerous introductions, having been sent by him from the north of China to Messrs. Standish & Noble, of Bagshot, on his second visit to that country.—(*W. Thompson's English Flower Garden, Revised by the Author.*)

THE HERBARIUM.

HAVING noticed that several correspondents have recently asked for information with regard to the mode of collecting, spreading-out, pressing, drying, and otherwise arranging plants for the herbarium, I have thrown together the following hints, trusting that the querists will derive more satisfaction from their perusal in a connected form than they would had I sent them in so many detached replies.

To begin from the beginning, I must impress on everyone who would gather plants for the herbarium, to attend to the following points—viz., 1st, All plants gathered should be as perfect as possible, showing root, leaves, flowers, and seeds, and where these are not all present on the same plant at the same time, a return should be made at a future period, to secure such parts as may be missing at the first visit. 2nd, Particular care should be taken to carry the plants home in such a manner as to prevent them from becoming flaccid through evaporation. This is best attained by placing them on gathering in a long tin box with a hinged lid, something like a large sandwich-box. This may be slung across the shoulder with a strap, thus leaving the hands free. Besides this box the collector should be provided with a small book of blotting-paper, in which he will do well to place such plants as shed their blossom easily, as, for example, the *Veronica Chamædrys*. 3rd, A note should always be made of the locality in which the plant was found; and mention of date of finding, and time of flowering, &c., is also recommended. A short, strong, steel trowel or spade is a very necessary companion, in order to uproot plants without injuring their roots. Those who intend to include the *Conferve* in their collections are advised to carry with them a few sheets of gutta-percha tissue, in which the gelatinous *Alge* can be rolled-up, without injury to themselves or other plants.

The next things to be provided are those connected with the pressing and drying of the specimens. The point to be aimed at is, to spread-out the plants in such a manner as to display their foliage, roots, stems, flowers, &c., to the best advantage, without stiffness or artifice; and to dry them off as rapidly as possible, under pressure, so as to cause them to retain, as far as is in our power, their natural and distinctive colour and form. To this end, different collectors make use of different appliances, some using a screw-press, others weighted boards, others again being satisfied with old books. As, however, the amateur is liable to become confused when many methods are described, I shall limit myself to one, which I have always found to work well, and which is well adapted to those whose means are limited.

Two pieces of board are to be procured, each 1 inch thick, by 18 inches long, and 12 inches wide. In order to prevent warping, these boards should be made with crossed pieces at the ends. About 150 sheets of old newspapers are then cut out to the same size as the boards—viz., 18 inches by 12 inches. Eight new bricks are then each neatly enclosed in glaze lining covers, to serve as weights. All things being now in readiness for pressing, the plants are to be taken from the tin box; dead and withered leaves having been removed, the roots are carefully cleared from all adhering soil (if possible without washing, but if washing be absolutely necessary, drying carefully before placing on the paper), and notice is taken of the natural disposition of the foliage, &c. One of the boards is now laid on the floor, or table, where it is to remain, and a half-dozen sheets of paper placed squarely over it. The plant is now placed in the centre of the top sheet, or, if small, several plants may be placed on the same sheet, and the branches laid out as naturally as possible. The leaves should be so placed, that when covered with the top board they should lie flat and without folds. This may often be insured by pressing the leaf-stalk (petiole) strongly with the thumb, at the point where it is united to the stem. The same care must be taken with regard to the flowers, roots, &c. Should the plant be very thick in its stem, it is advisable to split the main stem and remove half; the same may be done with thick tuberous,

bulbous, or cormous roots. If the plant is very succulent, or is aquatic, it will be well to place immediately above and below it a sheet of paper which has been soaked in paraffin or stearine. The plant having thus been "set," three or four sheets of paper are to be placed over it, the number depending on the size and succulence, or moisture, of the specimen; the more moisture it contains, the more paper will it require. A second specimen may now be placed on the paper, and arranged as before, and so on until ten or twelve specimens, each interleaved with six or eight sheets of paper, have been "set out." The second board is then placed over all, and loaded with bricks in such a manner as to obtain an equable and sufficient pressure. The plants are allowed to remain under pressure for about twenty-four hours, when the top board is to be removed and placed on the floor. Half a dozen sheets of paper are then placed on this, and the partially-pressed plants removed from the old damp sheets. The plants will now be found to be much more flaccid and obedient to the hand, so that any little defects made in setting may easily be remedied. Of course, care must be taken not to handle roughly, and to place a sufficient number of sheets of paper between each specimen to insure the moisture drying off rapidly. When all the plants have been shifted, the board which was formerly at the bottom is now placed at the top, and weighted with bricks as before. These operations are repeated day by day, until the plants are sufficiently dry and rigid to permit of their being affixed to paper, and placed in the herbarium. With regard to the herbarium itself, a few words respecting the size of sheets, &c., are necessary here, as upon these apparent minutie depends a great deal of the value of the collection.

The sheets will be found most convenient if cut to the size of 17 inches by 11 inches. The paper should be white, as that colour shows-up the specimens better than others; but the exact thickness or consistence is not very material. Common demy is as good as any for the purpose. With reference to the mode of fastening the plants down to the paper, the neatest mode is certainly to sew the main stems down in two or three places, by passing the needle through the paper at one side of the stem from above, and then out again at the other side of the stem, the needle again coming out above. The cotton is then knotted over the stem. This method allows of easy removal of the specimens without injury, if it is necessary to exchange or examine them from below. The next neatest method is to fasten the plants down by means of narrow gummed paper straps, about one-eighth of an inch in width by three-quarters of an inch long. What must be avoided, is to gum the specimen itself to the paper, as by so doing it becomes useless for reference. With regard to labelling, I found it extremely convenient to use detached labels 2½ inches long by 1¼ inch wide, on which I write the names, &c., and which I stitch down at the right-hand bottom corner of the sheet. I prefer to stitch it down, as I can remove and change the label at any time, if necessary through mistakes or change of name occurring, without injuring the plant by removal from its paper. A few words may now be said with reference to the information furnished by the label. First, then, we ought to have the Latin name of the genus to which the plant belongs, then the name of the particular species. Directly after this name should be placed the name of the authority from which that name was taken (this is often left out, and more often abbreviated); then should be written-in the English name (if the specimen has one); to this should follow the Linnean class and order to which it belongs; then the natural order; and last, but not least, the locality and epoch at which the specimen was gathered, together with such information as may be deemed important.

Annexed is a form of label which we should use for the Traveller's Joy:—

Clematis Vitalba.—*Lin.*

Traveller's Joy.

Polyandria. Polygynia.

N.O. RANUNCULACEÆ.

Wallington, July 5, 1874.

—S. BOTTONE.—(*English Mechanic.*)

LE HAVRE ROSE.

In answer to your correspondent "P." as to *Le Havre Rose*, it is a French variety, and was sent out in the autumn of 1871, a year which was as prolific in good roses as 1872 was the reverse; for in that year we had of *Teas Comtesse de*

Nadaillac, Madame Jules Margottin, Mlle. Cécile Berthod, Marie Van Houtte, and Souvenir de Paul Néron; and in Hybrid Perpetuals, besides Le Havre, André Dunand, Auguste Rigotard, Lyonnais, François Michelon, Madame George Schwartz, Madame Lefebvre Bernard, Etienne Levat, Richard Wallace, and Baron de Bonstettin. In colour Le Havre is a vermillion red, bearing some analogy to Alfred Colomb, but different in shape, being not so globular, and more between that and Madame Charles Crapelet. I am afraid it is an uncertain Rose; but unquestionably the bloom exhibited by Mr. Turner at Exeter was one of the most beautiful flowers I ever saw, and I should have called it the premier flower of the Exhibition.—D., Deal.

SANDRINGHAM HOUSE.

THE SEAT OF H.R.H. THE PRINCE OF WALES.

Two years since we published an historical notice and description of the gardens of this residence. Our illustrations,

with the exception of the flower-garden beds and the walk to the church, were applicable only to the old mansion, and we have but little to add as an accompaniment to the view of the west front of the modern residence which we now publish.

It was erected from designs by Mr. Humbert, was commenced in 1869, and finished in 1871. We could dwell long, and much to our own satisfaction, upon the garden before the west front of the house, the view towards it across the lake, upon the admirable kitchen garden, and the model labourers' cottages, which a high engineering authority declares to be unsurpassed; but we described most of these features in our pages during 1872.

The early history of the Sandringham estate was published by us in the year already mentioned, but we may add that from the Henley family it was purchased by Mr. Motteux, who devised it to the Hon. C. Spencer Cowper, and in 1861 he sold it to the Royal Family for £220,000. The estate includes the parishes of Sandringham, Babingley, Appleton, Wolferton,



Fig. 32.—SANDRINGHAM HOUSE.

West Newton, and part of Dersingham, amounting altogether to about 7000 acres.

The walk to the church has now an object of additional interest. Not the least pleasing of our recollections connected with Sandringham will ever be with that church, not only because of the taste yet simplicity which characterise its interior, but because there is the noble lectern given by the Princess as a record of her gratitude for her husband's restoration. The church nestles among trees, and the churchyard is a pattern of neatness. Only one grave is conspicuous, and that is of sufficient interest to deserve depicting. It is of white marble, is enclosed by a very low iron rail, blue picked out with gold, inscribed on the base of the cross at its head with the tender words, "Suffer little children to come unto Me, for of such is the kingdom of heaven;" and around the marble slab, "Alexander John Charles Albert, third son of Albert Edward Prince of Wales and Alexandra Princess of Wales. Born April 6th. Died April 7th, 1871." There are two edgings of marble around the slab; and between the two edgings, and between the inner edging and the slab, is a narrow border, each border planted with very dwarf Geraniums and Verbenas (see fig. 33). It is beautiful without being obtrusive, and a most fitting tribute of parental feeling.

Whilst there at the commencement of the present month we were informed, and regretted that we should not attend, that at its close there is to be held "The Sandringham Cottage Horticultural Society's Show." It is held annually in the park, and is only one of the very many themes which the neighbours delight to quote of the kindness of the Prince and Princess. It is heart-gladdening to see the improvement which these and other agents have effected in cottage gardening generally, from the window flowers to the Potato crop.

WHAT IS AN AMATEUR?

A CORRESPONDENT writes as follows:—

"At our show some dispute has arisen as to who is an amateur, and if anyone employing a gardener occasionally, say one day in a week, is one or not—that is, would be legally admitted to compete at any of our shows against any amateur? Your opinion would be greatly valued as to what constitutes an amateur."

Any person who cultivates a garden not for commercial gain is an amateur. No matter how many gardeners he may keep,

From a photograph by Mr. McClean, of Hunstanton.

he is still an amateur. The restriction of the term to a person who does all the gardening himself without the aid of paid labour is a very arbitrary one, and cannot be justified. In framing schedules where the class is confined to "amateurs," and it is intended to encourage any particular class, there ought to be such distinctions as—Amateurs employing a professional gardener or gardeners, amateurs employing a gardener occasionally, and amateurs having no garden assistant.—Ebs.

HEREFORD ROSE SHOW.

I HAVE been requested by the Honorary Secretary to send you an account of the West of England Rose Show held at Hereford. This Show took place in the Birmingham week, and consequently suffered thereby; but there was no help for it, as the Rose-fixtures come so close together during our brief season that some must clash. Besides, the Hereford people felt that it was a most unconscionable proceeding on Mr. Quilter's part to appropriate a whole week for his show, at a time when Roses are at their very best, and so they preferred to run the risk of a poor show than to put it off a week later, when most men's Roses would be over. I could not bear giving up the Birmingham Show, but as I could not show at Hereford as well as Birmingham, I preferred the former: first, because I never enjoy any day so

much as the day spent at the Hereford Rose Show; secondly, because I was asked to judge there; and lastly, because I had accepted the invitation of my friend Mr. Cranston, and would not have missed paying that visit for any amount of Birmingham shows.

And now as to the Show itself. To tell the truth I was very disappointed with it, but I was not surprised. Knowing as I did what a bad season it had been for Roses, and also for the reason I have stated above, I was not, I say, surprised to find it in comparison with other years a very poor show. Cranston, Mitchell, Paul, and Davison, were the only nurserymen who put in an appearance, and Cranston's were the only stands which came up to one's idea of what a great nurseryman's Roses should be. But who can wonder at this? The nights before the Show had been close to a degree I never experienced before in the early part of July. Certainly my own blooms never travelled so badly as they did to Hereford, and I drove twenty-seven miles in order to catch the night mail for Gloucester. And here I should be very glad if some of your readers would give their opinion as to the desirability of driving a long distance in order to get a night train. Does the road journey more than undo the good gained in travelling by the night mail?

There was very little competition in the amateur classes. Indeed, Mr. Arkwright and myself divided most of the first prizes. My friend Mr. Baker has been completely knocked out of

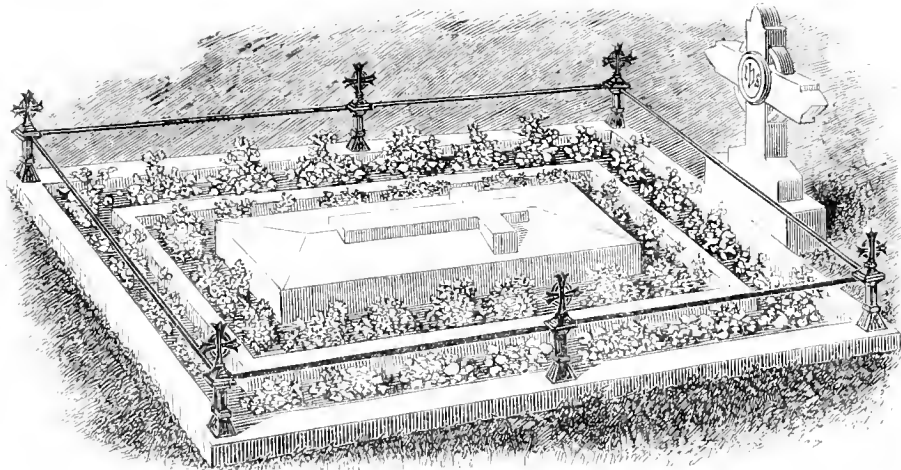


FIG. 33.—THE INFANT PRINCE'S GRAVE AT SANDRINGHAM.

competition this year, and I should have been the same if I, like him, had all my eggs in one basket—*i.e.*, all my trees planted together. In some parts of my gardens the trees have been decimated. I lost at least seven hundred Manetti Roses. Indeed, I hardly lost any standards. But what a year for Teas it has been! I cannot understand how people can say Teas are tender. My experience tells me that they are a great deal harder than most Hybrid Perpetuals on the Manetti. I do not think I lost a Tea, except six *Maréchal Neils* which were removed too soon in the autumn. *Souvenir d'Elise* (to me the finest Rose in cultivation) has been most glorious. I have it now perfectly superb against a dwarf south wall, and my plants that served me for the early shows are all in bud now, and will be ready for the autumn ones. Tea Roses bloom much more freely a second time than do any other Roses. Always the last Rose blooming in my garden is a darling Tea, and yet there are only about twelve which are worth growing. Indeed, it is a difficulty to show twelve really good Teas. I wish more prizes were offered for Tea Roses at the shows. The Royal Horticultural Society at South Kensington is, I believe, the only Society which has a class for amateurs' Teas. There ought to be a class at every show, with prizes as good as are given for Hybrid Perpetuals, and then we should have men cultivating them more, and judges would be more just when judging a stand of forty-eight, and give, as I maintain they ought to do, points for fine Teas.

But (forgive this digression on the Teas) to return to the Show. If the Roses as a rule were not up to the average, the company was above it, and I rejoice to say the receipts were larger than our friends had had for many years. And what friends they are at Hereford! What hospitality, what kindness, what courtesy! I could have spent a week there, and then not have overstayed my welcome. I would not miss a Hereford show for anything that this world can offer. I think the only thing which would make me less enthusiastic about it would be the terrible event of my stand of Baroness Rothschild being

beaten in the class for twelve blooms of any Rose. For three years in succession at Hereford I have won this prize with the Baroness, and when she fails me I shall indeed be brought low.

By staying with Mr. Cranston I enjoyed the great privilege of going over his nursery at my leisure, and how I availed myself of this I need not say. I saw one hundred thousand trees in full bloom! I could walk upwards of a mile through exquisite Roses! I saw Sir Garnet Wolseley, Mr. Cranston's grand seedling, in bloom, and feel confident that here we have a novelty which will make the French raisers hide their diminished heads. I had seen it at the Show the day before, where its production created a *furor* only second to its namesake's appearance in the Sheldonian Theatre. I saw one thousand plants of *Madame Lacharme*, and a greater take-in I never had the misfortune to buy. I have worked that Rose, and bought it, and petted it, and tended it, and it has repaid me by giving me dirty ragged blooms, inferior to *Mille Bonnaire* or any other white abomination. How *Lacharme* could send it out with such a flourish of trumpets, I cannot understand. All the great nurserymen have thousands of plants, and I do not believe we shall find the Rose in the catalogues in 1878. But I saw here and at Salisbury one really fine Rose of 1873, and that was *Souvenir de John Gould Veitch*. That is a real prize, and, of course, with my usual luck it was the only one, though I ordered it, that I did not get last year. As to all the rest of the 1873 Roses, they are not worth the paper on which I write. The hardships, Messrs. Editors, of having to buy these "pigs in pokes," these miserable little plants of new Roses every year, at 3s. 6d. each, or else lose the chance of having a prize (and then, as in my case, not getting it), is a very great one. Four pounds did I pay for these wretched little starvelings that had been run-up in great heat, and are joined to a weak Manetti stock, and so loosely united that you can almost blow them asunder. And yet every year there are scores of new Roses with descriptions appended to their names in the catalogues which make your mouth water, and your eyes long with an eager longing to see them. Cannot

something be done to correct this evil—the nurserymen suffer as much or more than we amateurs—and save the pockets of poor persons like myself, who cannot afford to throw money away, but yet cannot bear to run the chance of missing a good thing? And now I must bring this long yarn to a conclusion by telling you that I returned home by way of the Wye, past Tintern Abbey, and on to Chepstow and to Bristol, and had one of the most delightful trips I ever had in my life.—J. B. M. CAMM, *Monkton Wyld*.

NOTES ON VILLA AND SUBURBAN GARDENING.

Winter Vegetables.—Bear in mind the value of a good supply of wholesome vegetables for autumn and winter; it is yet good time to plant Savoys, Kales, Broccoli, Leeks, Celery, Lettuces. Sow some Cabbage for late winter and spring use, and prepare a healthy piece of ground for the seed beds for spring and summer Cabbage, which should be sown two or three different times between the 25th of July and the 12th of August. A small border or warm corner should also be prepared and worked into a sweet pulverised condition for Winter Spinach, which should be sown about the 10th or 12th of August. This is also a good time for sowing the hardy kinds of Lettuce for standing the winter. Celery already established should have applications of liquid manure in a diluted state, not to be applied too strong while the plants are small. Now is a good time for getting in fall crops of Turnips for use throughout the winter. Allow no waste Cabbages, Greens, Cauliflower leaves and stumps, or Pea haulm to remain, but give all such refuse to the pigs, if any are kept, and if not, it should be trenched at once into the soil as manure, to assist in producing other crops; it is to some extent returning to the soil what has been taken from it, together with what has been absorbed from the atmosphere. Continue to dredge the young Turnips, Cabbages, and other seedling plants with dry charred dust while damp, or early in the morning.

Budding Roses.—The desirability of budding Roses being decided upon, the selection of proper stocks is the next subject for consideration. Every gardener should keep a small stock of Briars in some retired place ready for use when the buds of valuable plants come into possession, and these, of course, require winter treatment, which need not now be explained. If you have Briars examine them immediately, and see how many are in a proper state for budding. The long drought this year has been unfavourable, having checked the growth of young wood and hardened prematurely that which was produced. Unless the bark rises quite freely do not attempt the operation. It has no chance of succeeding if a succulent juicy state is not manifest on cutting the stem, and this will only occur in young wood. New shoots are now being produced, which will be fit for working in about a fortnight, and I would recommend that the Briars be cut down to these shoots, and all the hardened branches be removed. An opportunity will thus be afforded for budding before August is closed, and, although rather too late, success may be expected. But if you have no Briars budding may be advantageously performed on other stocks. Boursault Roses, climbers such as *Adelaide d'Orléans*, and many others of free growth, generally throw up fine shoots from the root, and if all the old wood is cut away these may be budded on with every prospect of success. I have found more certainty attending the operation with this class of stocks than any other; and when you have common climbers you may easily replace them with good Roses in this way. Inferior Hybrid Chinas also make good stocks, *Céline* for instance; and as these Roses throw up wood freely, the gardener will easily find shoots for his buds if he has anything of a collection. I budded *Paul Joseph* on *Céline* in this way a few weeks back, and the buds have shot half an inch. There is another economical mode of securing stocks which I will mention, having found it of great service myself. Briars which have been budded on will often throw up suckers at a little distance from the parent stem, so that they may be cut off in the winter with a portion of the root. Bud on these and carefully remove them in the proper season. As, however, trees well established in the ground throw up their suckers very luxuriantly they must be watched, and all new shoots carefully stopped after the budding is performed. If this is neglected the strength of the shoot will run away with the juices necessary for the bud, and it will perish.

A damp dull day is preferable for budding, but not necessary; still, precautions must be taken to counteract the effects of heat and drought. Bud on the north side, if possible, and with the shade of some neighbouring foliage. Even the ends of the tape with which the bud is tied on may be made to hang over it so as to shade it from the direct beams of the sun. In all these matters a common-sense view of the affair in hand must be taken, and this will lead to the adoption of the best methods of securing the object. We do not transplant in hot sultry weather if it can be avoided, but if it be necessary at such seasons to remove anything we shade and water more carefully. Now, if it is remembered that in budding a wound is inflicted, and that the part inserted is very thin and delicate, it will be evident that success cannot be expected in the absence of thoughtfulness,

similar to that which transplanting requires. Budding requires the nicety of touch and perception of mechanical adjustment which surgery demands; like that, too, it is an operation performed on a living body. Many clever people could never had well from an inability to perform any nice operation. Are you able to bind-up a cut finger well, tenderly, neatly, and securely? Then you can bud, and may proceed with the hope of success.—W. KEANE.

DOINGS OF THE LAST AND PRESENT WEEKS.

The heavy thunder showers hardened the surface of the ground, and also caused a good crop of weeds to appear in the vegetable quarters. In such a case no time should be lost in running a hoe over the surface of the ground, so that the weeds may be destroyed, and what is also of great importance, the ground loosened. There is some difference of opinion amongst gardeners as to the best form of hoe to use in the kitchen garden. We use the Dutch and the awn-neck form of the draw hoe. The Dutch hoe is best adapted for working amongst salads and small vegetables in borders, &c., as it leaves the neatest work; but amongst Cabbages, Potatoes, rows of Peas, and similar crops, it is much better to use the draw hoe, and especially so if the ground is heavy, as the tilth can be worked so much deeper with it.

Early Potatoes, Peas, and Strawberry plants have been cleared-off sundry quarters, and the ground has to be prepared for winter crops, such as White and Sprouting Broccoli, hardy Greens, Scotch Kale, and Leeks, or to sow with Onions if very large specimens of these last are to be produced by midsummer. More or less of the above-named vegetables will, of course, be planted according to the requirements of the family, and the capability of the soil to bring them to perfection. In our ground it is sheer waste of seeds and labour to try to grow Broccoli, and if Leeks were planted they would not be used. Indeed, every district has its own favourite vegetable; even amongst the labouring class this is noticeable to a greater extent than it is in larger gardens. One seldom sees a kitchen garden in Scotland without its bed of Leeks. I have visited gardens of all sizes in the south of England, and have not observed this wholesome vegetable at all. The most profitable crops for us are Coleworts and Sprouting Broccoli. These supply us with vegetables all through the winter and spring. A bed of White Stone Turnips sown now will come-in late in the autumn, and will continue in use all through the winter.

FRUIT AND FORCING HOUSES.

Pines.—There are certain disadvantages attending Pines planted-out in beds, but there are also certain advantages; and the question sometimes arises, whether in some instances the planting-out system may not be the more desirable method. Mr. Perkins, of the Gardens, Stannore Priory, has shown us what can be done with the planting-out system in the way of producing large Pines, and also of doing so in a shorter period than has yet been done with potted plants. There is also but little danger to be feared from under or over-watering. We have put-in a batch of suckers in pots, and as soon as they are established one of the beds will be prepared for them and they will be planted out. Whether it is intended to grow the Pines to the fruiting stage in pots, or to plant them out in a prepared bed, it is desirable to place the suckers first in pots from 6 to 8 inches in diameter, according to the size of the suckers. The pots should be plunged in a bottom heat of about 95°, when roots will very readily be emitted. The plants must also be repotted before they are anything like pot-bound. No better material can be recommended for growing Pines than turfy loam—not sandy loam, but what might be called medium clay. About one-fifth part may be rotted stable manure, and an 8-inch potful of crushed bones may be added to each barrowload of the compost. Pines require careful watering at all times. The pots are usually plunged in tan or some other heating medium, and it is not easy to ascertain the state of the roots. When the fruit is colouring water ought to be withheld. Careless watering is the frequent cause of Pines not swelling-off well; the stalks die prematurely, and the fruit is consequently much depreciated in quality.

Orchard House.—The fruit is swelling rapidly on such early varieties as Early York and Early Grosse Mignonne Peach, and just a word in favour of the last-named sort. It is a splendid early Peach; the fruit is little, if at all, inferior in any respect to Grosse Mignonne, and it ripens almost with Early York. Hunt's Tawny and Rivers's Lord Napier are the earliest Nectarines, and they ripen in the order named; they do not come in quite so early as the early Peaches, but they follow them very closely. As soon as the fruit is nearly ripe on the earliest trees a change of treatment is necessary; previous to this the house had been shut up between four and five o'clock in the afternoon, and the trees at the same time were thoroughly engined overhead with water of the same temperature as the house. This treatment continued would cause the fruit to be watery and poor in flavour. The trees with ripening fruit should not be syringed, and, for convenience, all the trees bearing fruit of one stage of

ripeness should be placed together. A little air should also be kept on at the highest part of the house all night.

It will now be seen how necessary it is to have the trees thoroughly free from insect pests. Red spider increases with the most amazing rapidity as soon as they can obtain a dry footing on the leaves. When the fruit is ripening-off, the trees must be looked over once at least every day, and the fruit carefully gathered and placed upon cotton wadding, one deep, in the bottom of a flat-bottomed basket or box.

Cucumber and Melon Houses.—At one time we used greatly to prefer dung-frames for growing Cucumbers in summer, but we would only use frames now if the supply from the Cucumber house were not equal to the demand. When the plants are making rapid growth it is necessary to look over them once every week to cut out any exhausted old growths, and to tie-in the young bearing shoots in their place. But little heat is necessary from the heating apparatus, unless very fine specimens are required for exhibition purposes. Syringe the plants in the morning at 7 A.M., and in the afternoon when the house is shut up.

It has been recommended to take a second crop of Melons from the plants that were raised in January, and which bore a crop of ripe fruit in June. The plants are watered, some of the old leaves cut off, and the young growths trained to the wires. If the plants are sound at the neck, which is not always the case, a number of female blossoms will be produced, and the second crop sets more freely than the first. This method of procedure involves less labour than clearing out all the old soil from the house, and replacing it with fresh in order to turn out young seedling plants. Whichever system is adopted, it will not be necessary to resort to the heating apparatus either for bottom or top heat. The house should be shut-up in the afternoon, and otherwise treat the plants the same as Cucumbers.

GREENHOUSE AND CONSERVATORY.

At this season the good old-fashioned Fuchsia, and, what is even more useful for decorative purposes, the Zonal Pelargoniums, single and double, are usually the occupants of our greenhouses. Few plants are more easily grown, and few more thoroughly repay the little trouble required to train them into handsome decorative specimens; but too however useful and beautiful they may be, we may have too much of them, and their free-growing properties may be injurious to more slow-growing and tender exotics placed amongst them. Indeed, a very large proportion of the New Holland and Cape hardwooded plants are spoiled if it is necessary to grow them in the same house with rapid-growing succulent-leaved plants.

A plant which is now in flower with us, and which may be recommended for its colour and otherwise distinct character, is *Lisianthus Russellianus*. This is a good old biennial, and well worth all the care necessary to bring it to perfection. Some instructions were given as to the culture of it in No. 692. Possibly the greatest difficulty will be to obtain seeds of it. Nearly all the principal seedsmen can supply it, but either from being imperfectly ripened or some other cause, it very seldom vegetates. It may be that the fault has not always been with the dealer, but that the grower was to blame. It requires great watchfulness from the time the seeds are sown until the plants are ready to pot-off. The same treatment that applies to *Calceolaria* seeds will answer for those of *Lisianthus*.

Reported Auriculas and placed the plants in a shady position where they will remain until the end of September, when a frame facing south will be the best place for them. We do not use large pots for any of the plants, the largest being 4 and 5-inch, and for smaller plants 3 inch pots are sufficient. Moved pots of Carnations and Picotees out of doors. The sooner they are removed-out after flowering the better. The grass becomes drawn and the future plants much weakened, if they are kept too long in the house before they are layered.—J. DOUGLAS.

PROVINCIAL HORTICULTURAL EXHIBITIONS.

[SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held. Although we cannot report them fully, we shall readily note anything especially excellent, and we wish for information on such specialities to be sent to us.]

AUGUST.		AUGUST.	
Earlsheaton and Chickerley	1	Taunton Deane	13
Heywood	1, 2, and 3	Malmesbury	13
Southampton	1 and 3	Birmingham	14 and 15
Woburn	3	Rhyope	18
Whitwick	4	Keel, Wilts	19
Ilkeston and Shipley	5 and 6	Eckington	19
Felton	6	Cardiff (Glamorganshire) ..	19
East Neuk of Fife	7	Deal and Walmer	20
Aldborough and Broughbridge ..	7	Haverfordwest	20
Horninglow	8	Reading	20
Clay Cross	11	Belfast	20 and 21
Eastlepool	11	Eastbourne	21
Meltham	11	Knightley	21 and 22
Weston-super-Mare	11	Todmorden	22
Ellon	12	Shotley Bridge	22
Royal Hort. Society of Ireland ..	13	Wakefield	22

AUGUST.		AUGUST.	
Warkworth	24	Tynemouth and S. Northumber-	
Wotton-under-Edge	25	land	26 and 27
Bainbury	25	Skireoat (Yorkshire)	28
Dunley (Worcestershire) 25, 26, and	27	Perth	28
St. Andrews	26	Chasley	28
Sherborne	26	Falkirk	28
Kempsey	27	Bishop Auckland	28
Cloucester	27	Kilmun, Strone, and Elamora ..	29

TRADE CATALOGUE RECEIVED.

W. Henderson, 86, Hamilton Street, Birkenhead.—*Select Catalogue of Dutch and other Flower Roots.*

TO CORRESPONDENTS.

* * It is particularly requested that no communication be addressed *privately* to either of the Editors of this Journal. All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only.

We also request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

BOOKS (W. J. GERRON).—The new edition of "The Greenhouse," in the series of "Manuals for the Many," is the book you require. It treats exclusively of the plants and their culture, and the constructive part which was in the former edition has been discontinued. Price 9d. (W. P.)—W. Paul's "Shilling Book on Roses." Any bookseller can supply you with it.

MERCURY FOR COOKING (An Old Subscriber).—The leaf you enclosed is of the right kind, *Chenopodium Bonus-Henricus*.

LARVA ON PEAR LEAVES (F. E. R.).—Dusting with quicklime is the effectual remedy. The larva is popularly called "The Slimy Grub." It is produced by the *Tenthredo alniplumata*, a four-winged fly. Drawings and full relative notes are in our No. 678, published June 19th, 1873.

AMERICAN BLIGHT ON APPLE TREES (An Old Subscriber).—We have pretty well got rid of this pest on our trees by using boiled oil. This is applied to the affected parts with a painter's brush, rubbing it well into the cracks.

GRAPES ATTACKED BY A MAGGOT (F. H.).—This is rather an uncommon occurrence, and no other remedy can be suggested than to pick out the maggots and destroy them.

LEAF MOLD (H. J.).—Judging by the sample you have sent it will do very well mixed with silver sand to strike cuttings in to stand the winter.

LILITH AURATUM OFFSETS (Co. Antrim).—The plants should be repotted when they die down, turning them out of the pots, removing the old soil over the bulbs, and picking the soil from amongst the roots. Preserve the healthy roots, with any portions of soil occupied by them, and after removing the offsets repot in fresh clean pots, which may be three times the diameter of the bulbs, and place these so that when just covered with soil the pot will be little more than three parts full. The offsets may be potted singly in 5, 6, or 7-inch pots, according to their size, and in the same way as the larger bulbs, only just covering them with soil, make firm around them, and leave a space of an inch or two below the rim for top-dressing. Good drainage must be provided, and a little of the rougher parts of the compost should be placed over it, the compost not being sifted, but well mixed and broken-up fine. It may consist of two parts fibrous light loam, one part each leaf soil and sandy peat, half a part well-rotted manure, and half a part in equal proportions of silver sand and nodules of charcoal. The potted bulbs should be wintered in a light airy position in a cool house or pit safe from frost, and sufficient water given round the sides of the pot to keep the soil moist. Fill the pots with soil to the rim, allowing for watering, when roots show from the stem just over the bulbs. The amount of water should be increased with the growth and lessened after flowering.

MELON PLANTS DYING (X. Y. Z.).—From the stem enclosed to us we consider you have the disease attacking the Cucumber and Melon, for which neither cause nor remedy has been found. The plants will most likely die. The only thing we have found of service is to keep up a good brisk heat by lining the bed, which encourages root-action; admit air freely, securing the requisite temperature, and water only to keep the foliage fresh, shading from bright sun if the leaves are disposed to flag. Attacked as yours are, the plants rarely recover.

COVERING FOR FRUIT WALL (C. Y.).—Your border being so narrow we should not advise your going to the expense of upright sashes. We should raise the wall to say 9 feet, and have a lean-to house of about 7 feet 6 inches wide. If you could not conveniently raise the wall, we should have it with 7 feet 6 inches, and the front of the lean-to part wood and glass—i.e., 2 feet of boards, the upper one being hinged and opening outwards the entire length of the house, and 2 feet of glass fixed. For the front you will need posts of yellow deal 5 inches by 3 inches, which should be let into the ground 2 feet, they being 6 feet long. The part placed in the ground should be first charred, and then coated with boiling gas or coal tar. The posts may be 4 feet apart, and firmly fixed upright. At the height of 14 inch thick, grooved on the under ground, you will need a sill 5 inches by 14 fixed between the posts with a half-inch incline outwards to allow of the water running off, the groove preventing the water running down the face of the boards. Upon the posts have a plate 4 inches by 3 inches, on which the rafters are to rest, the plate being nailed on to the posts. The back wall will need to have a plate or board 1½ inch thick, secured to the wall with nails, the wall plugged so as to admit the

nails where required. The wall plate may be 6 inches wide, and should be notched, so as to receive the rafters, which may be 4 inches by 1½ inch, and fixed narrow side upward, they being ploughed half an inch wide and deep so as to receive the glass. The rafters must be cut off slanting, so as to rest on the front plate, the rebate exactly corresponding with the front top edge of the front plate, and exactly over the posts, they being securely nailed to the plate. You will thus have a house with rafters 4 feet apart; between them fill-in with rafters or bars 2½ inches by 1½ inch, and 1 foot apart. You will need a bevel-piece at bottom to form the rest for the glass (it need not exceed an inch wide), and a nose-piece grooved on the under side to run off the water; this ought to project an inch, and the glass should cover the joint, it being "planted" on the front of the front plate. At the back you will need a strip of wood half an inch wide, and nailed on level with the rebates in the rafters and bars. The roof will then be ready for the glass, but we have not provided for ventilation. We will there put in a piece of wood lengthwise of the house 1½ inch thick and the depth of the rafters, and between every alternate rafter, the bars being let into it. These to be 18 inches down the rafters from the top, and for these openings you will need 2-inch lights, and so as to rest on the rafters, extend to the cross piece, and be hinged to the plate against the wall. These lights may be raised by a flat piece of iron fixed at the bottom in the middle, and an iron peg in the cross piece to fit into the holes. The ventilators, with the board in front, will give plenty of air. The front part will need to have bars corresponding with the roof, and the posts to have strips of wood nailed on to receive the glass. The part below the glass in front to be covered with three-quarter-inch boards, the upper one hinged, as before stated, so as to let down the whole length of the house. It may be glazed throughout with 15-oz., better 21-oz., thirds sheet glass. The ends will need to be formed so as to correspond with the front, and doorways provided. The advantages of a house of this kind over the one you name are great. You will be able to have trees on the back wall, and if you have it in two divisions you could have in one two Apricots against the wall, and in front a row of trees in pots of Plums or Pears, or both, with Cherries if you wish. In the other you could have two Peaches and a Nectarine against the wall, with Peaches in pots in front, or Vines trained lengthwise of the house, and so that the shoots do not extend further than to leave 4 feet clear of the upper part of the glass. The Vines might be trained to wires 16 inches from the glass, or grown in pots. Along the front you could have a shelf for Strawberries in pots, and the house would be useful for many purposes. A path way along the back, resting on brick, would serve you. A house of this sort would cost very little more than the coping with sliding sashes you describe, but would afford far greater advantages. No shading would be required. By applying to some horticultural builder and describing what you require, you would probably obtain at a cheap rate the house ready for fixing.

DECOMPOSING NIGHT SOIL (X. Y. Z.).—The best material is dry earth, a shovelful of the earth being used every time, and the whole could then be emptied without offence to labourers, and mixed with four times its bulk of dry earth. Kept under cover it is a very valuable manure, and may be applied to ground for vegetable crops in about one-fourth the quantity of farmyard or stable manure. Treated in this way and dug-in, it is not offensive.

DELT FOR SPRING GARDENING (Item).—The seed should not be sown until late in May or early in June, and the plants thinned to 2 inches apart. In October, or as soon as the ground is cleared, they should be moved with all the soil that will adhere, and planted so as to cover the root, giving a good watering if the weather be dry.

ACHILLEA MILLEFOLIUM ON LAWN (W. W. B.).—The Yarrow is a fast-spreading plant, which endures drought well, and gives a patchy appearance to a lawn. Dry weather does not bring the plant, but makes it appear more conspicuously from the bad effects of the drought upon the grasses. The Achillea should be removed, for, instead of dying, when wet comes it will grow more freely, overpowering the grass, which should be encouraged.

VINES INFESTED WITH THRIPS (T. P.).—The leaves are much infested with thrips, and from their eggs will issue another generation. Choose a calm evening when the foliage of the Vines is dry, the floor wet, and the sashes shut-up closely, then thoroughly fill the house with tobacco smoke. Keep the house closed the following day if possible, dull weather being best, and frequently sprinkle the paths, &c. The next night but one after fumigation fill the house again with smoke, keeping as close the following day as is consistent with the safety of the Vines, and in the evening syringe thoroughly, and daily every evening until the Grapes change colour. If they are colouring the syringing must not be practised, but the floor and every available surface should be wetted morning and evening. The fumigation ought to be repeated in a week after the first application, and afterwards a good look-out should be kept for the re-appearance of the pests, and when any are seen fumigate.

ATREBETIA ORFEOA, GOLDEN-FEATHER PYRETHRUM SOWING, &c. (C. C. M.). The *Atrebetia* should be sown in May or now, the seedlings being kept over the year, the latter being the best plants. Golden-Feather Pyrethrum should be sown in April, and the Forget-me-not in June. They should be pricked-off when large enough, and be moved in October to the beds when these are cleared. The *Fansies* should be planted in autumn. Double *Daisies* should be divided as soon as the flowering is over, planting the division in good, rich, light soil in a shady border, and keeping moist. They should be planted in autumn along with all other spring-flowering plants as soon as the beds are cleared of the summer plants.

WATERING (E. H. R.).—The best time to water during hot weather is in the evening, from 5 to 9 P.M., or later. It is not advisable to water when the sun is powerful, especially when the foliage of the plants must be wetted. When this is the case the watering is best done early in the morning or evening, preferably the latter. Watering plants of large size at the roots may be done at any hour of the day.

WATERING STEPHANOTIS WITH LIQUID MANURE (W. C. D.).—If the border is full of roots, and the plants growing freely, weak liquid manure may be applied at every alternate watering during growth and flowering, care being taken not to have the manure water strong, or it may injure the roots. Liquid manure collected in a tank from stables and a pigsty is of too uncertain strength to be applied to plants without considerable dilution with water, judgment alone determining its strength.

SOWING ACILEGIA GLANDULOSA (E. H. W.).—Seed of this sown now will not produce plants for flowering next spring. It is rather slow-growing, and is best cultivated in pots, or at the foot of rockwork, in a compost of equal parts loam, sandy peat, and leaf soil, with a sixth of sand, and good drainage. The seeds should be sown in April or May, and placed in a cold frame or house, shaded until the young plants appear, then give air and light freely,

and pot singly when the rough or second leaves are showing, affording slight shade until established. They should have a position somewhat shaded in summer, and sunny or open in winter, with free ventilation, shifting into larger pots as the pots become full of roots, always keeping moist, but avoid making the soil sodden. The plants will not endure "pushing."

FUCHSIA AND GERANIUM LEAVES BROWNED (Amateur).—There were no insects on the leaves sent us, but evidence of red spider having been upon the Fuchsias. This enemy is best overcome by syringing with a solution of 2 ozs. of soft soap to the gallon of water, the plants being laid on their side and the solution forced against the under sides of the leaves; afterwards keep well syringed. The Geranium leaves are scorched from having been watered overhead or syringed when the sun was shining powerfully upon them, combined with inefficient ventilation. They will recover outdoors, but will no doubt lose all or most of the old leaves.

ANNUALS FOR SPRING BEDDING (R. W.).—The best pink is probably *Saponaria calabrica*. The seed may be sown in the first week in August, or not later than the second week, and the seedlings pricked-out, when large enough to handle, about 3 inches apart in light rich soil. The white variety, *S. calabrica alba*, is equally good. A deep rose or red is *Silene pendula*, which should be sown at the end of July or early in August, and should be pricked-out like the *Saponaria*. *Silene pendula alba*, white, makes a fine mass. *Myosotis sylvatica* is the best blue; the seed should have been sown in June. *Nemophila in-luvis grandiflora* will meet you for blue, the seed being sown the last week of August, pricking-out, and having the planting bed well raised to prevent wetness of soil, or the plants may die off. *Collinsia verna grandiflora* sown the second week of August is a good pretty blue. *Limnanthes Douglasii*, straw colour, may be sown in the first week of September. *Lasthenia californica*, yellow, sow the third or fourth week in August. All the plants mentioned are best pricked-out in good, rich, light soil, and should be shaded and daily watered until established. They should be planted in the beds as soon as these are cleared of their summer occupants, and be put in rather thickly, say 4 to 6 inches apart, and some plants ought to be kept in reserve, to fill-in with if necessary in spring. The plants should be moved carefully, and with little balls of soil. Could you not employ some red-leaved Beet and Golden-Feather Pyrethrum?

BUCKLAND SWEETWATER GRAPE (A Young Beginner).—This is a round white Grape.

CAMELLIAS (J. H. Mason).—By the account you give of the Camellias they appear to be doing very well indeed. Perhaps they may be a little too forward in bud, but not much; that is of little consequence so long as they have improved so much.

PANSIES MILDEWED (J. Kilston).—The mildew is attributable to the long-continued dry weather, and the plants will no doubt recover themselves when it has ceased.

THRIPS ON VINE LEAVES (A Subscriber).—Your Vines are covered with thrips. See answer to "T. P." in the next column.

NAMES OF PLANTS (Mrs. W.).—Send us a single bloom in a small box with damp moss, and with the aid of the drawing we shall be able to make it out. (*Chen. Bryonia*—*Styrax arifolia*. (S. G.)—*Combretum purpureum*. (J. C.) 1, *Begonia Pearcei* (*Bot. Mag.*, t. 554); 2, *Begonia*, perhaps insignis; but you send no female flowers, upon the structure of which the groups largely depend. (Mary Pole).—*Polypodium pustulatum* or *Billardieri*; native of New Zealand.

POULTRY, BEE, AND PIGEON CHRONICLE.

GRANTHAM POULTRY AND PIGEON SHOW.

POULTRY formed a division of the Lincolnshire Agricultural Society's Grantham meeting, held on the 22nd, 23rd, and 24th inst., which though not a very extensive show, outnumbered its predecessors. The arrangements were very carefully carried out, and the whole proved a well-merited success.

Duckings were one of the best-supported classes in the Show, a really well-shown pen of the fashionable dark colour being first, and the other three prize pens (for there were four prizes for this class) ran each other very closely for their respective places. *Game* (to which also four premiums were allotted by the prize schedule) were not by any means a first-rate entry, each entry of Brown or other Reds taking a prize; and in the next class, for Piles or any other light-coloured Game fowls, though first and second prizes were given, there actually was not any entry at all for the third premium. *Cochins* were a well-filled class, all colours being in competition, the now-so-well-known Partridge Cochin cock of Mr. Crabtree, mated to a good-feathered hen, being first; Mr. Woodgate's equally-noted Whites second; whilst the third was taken by a good pen of Buls sent by Mr. Winwood, of Worcester. There was also a really capital hen shown by Mr. Lievesley, of Lincoln, in pen 20, but her male companion was much her inferior. The *Brahmas* were shown together, both Light and Dark ones, Mr. Crabtree and Mr. Kendrick taking first and second with Dark ones; but the hen in Mr. Crabtree's other Light-feathered pen was so sadly ruptured, the third prize was withheld. All the *Spanish* fowls were in bad show-trim, and the prizes only were awarded. Such was the want of merit in the Silver *Hamburghs* that a third prize only was reluctantly given, both the others being withheld. Both *Houdans* and *Cree-Crees* were better than might have been expected: in point of fact, far better than are seen at the majority of poultry shows. Mr. Boothby, of Louth, well deserved his first prize in the *Poland* class with an excellent pen of Golden-spangled; but all the other pens proved empty. *Game Bantams* were good, though many were on the moult, and not a few were passed over for being "trimmed" excessively about the head until it bore the appearance of being actually shaven.

Another pen, in which the wings had been pulled off the cock, was "disqualified" altogether; and it is worth mentioning that the Judges would have given him a third, if not a higher prize, had he been left alone. In the variety Bantam class Blacks stood first and third, and White-booted ones second, in a good competition. In the class for Any other distinct variety of fowls, Black Hamburgs took first, La Flèche second, and Silkie third, all being very good birds. In the Selling class the prizes were taken as follows:—Silver-Gray Dorking, Dark Brahma, Grey Dorking, and Golden Poland. Here again "trimming" had been resorted to, and a Dark Brahma cock was disqualified, the hocks being dexterously both cut and plucked, and his tail feathers likewise. Trimming has of late again become so prevalent that strong efforts are needed for its restraint, and should simply disqualifying not have the desired effect, it is worthy of consideration by committees whether withholding all prizes already won by any exhibitor proved guilty of trimming in the same show should not be a punishment that possibly would prove a deterrent in most, if not all, cases.

Grand Geese and Turkeys are most worthy of note, especially the latter, than which it is barely possible to obtain a better competition than was the case at Grantham. Aylesbury Ducks were very fine and well-bred, and of Rouens the plumage was mostly of high merit, but the generality of them proved quite too small for show Ducks of the present day. A very nice pen of Carolina Ducks in breeding plumage, though so late in the season for this feather, had the race all to themselves, for empty pens were their only rivals. Guinea Fowls were a nice class, and a pair of admirably-shown White ones stood pre-eminent. A "miscellaneous Selling class, open alike to Swans, Pea Fowls, Turkeys," in fact anything in the shape of poultry, with five prizes, ranging from £2 10s. down to 2s. 6d., strange to say, was quite a failure; a pen of Rouen Duckings, and another of Golden Polands, taking the third and fourth, whilst the first, second, and fifth prizes were entirely withheld.

Of Pigeons the entry was small indeed, but of fine quality, Mr. Yardley making a walk-over for the bulk of the prizes.

The Show was well attended, and the poultry well provided for.

(From a Correspondent.)

This was a Show of about 180 pens, and although the competition was very limited, and the quality of the birds shown was not first-rate in some of the classes, yet other classes brought out a fair entry of good birds. The first-prize Dorkings were very fine, and the second-prize pen contained a very large and most excellent hen. The Game classes were rather limited in numbers, not containing so many pens as there were prizes offered. There was a good entry of *Cochins*, comprising nice Buff, Partridge, and White birds; but although there were several pens of Blacks, none either merited or received the notice of the Judges. In *Brahmas* Mr. Crabtree's were good, and the first-prize *Spanish* were a long way ahead of the others in quality of face. The first and second Golden-spangled *Hamburgs* were nice birds. The first-prize *Houdans* were very good, and showed the genuine Houdan comb. The first-prize pen of *Crève-Cœur*s proved also a very nice pair of birds, and in good plumage. In the *Poland* class only one prize was awarded to a good pen of Golden, going, however, into moult very fast. The Game *Bantam* class was a numerous one, but not many of the birds were meritorious. In the next class were some capital Blacks and Booted Whites. The Variety class was not a large one; the winners, however, were good. The first-prize Dorking cock, and the first-prize Brahma hen in the Selling classes, were good. The *Geese* were capital, and the Aylesbury and Rouen *Ducks* fine. The first prize in the Variety Duck class went to a pair of very handsome *Carolinans*. *Turkeys* were large, and Guinea Fowls better than usual.

Mr. Yardley's Carriers, White Pouters, Almond Tumblers, and Black Barbs were almost the only good Pigeons shown.

DORKINGS.—1, J. Walker, Rochdale. 2, H. Marshall, Cropwell Butler, Birmingham. 3, J. Hornsby, Grantham. 4, J. G. Jebb, Ketterick. 5, A. Garth, Southern, Lincoln.

GAME.—Red or any other Dark color.—1, F. Sales, Crowle, Doncaster. 2, H. Marshall. 3, E. Winwood, Worcester. 4, R. B. Duckering, Kirtlington, Wey. White, Pale, or any other Light color.—1, F. Sales. 2, E. Winwood. 3, No competition.

COCHINS.—1, W. H. Crabtree, Levenshulme, Manchester. 2, R. S. S. Woodgate, Rembury, Tonbridge Wells. 3, E. Winwood, *loc.* J. Walker; T. M. Derry, Godney. 4, W. Whitworth, Jan., Lonsight, Manchester.

BRAHMAS.—1, W. H. Crabtree. 2, E. Kendrick, Lechlade. 3, Withheld.

SPANISH.—1, E. Winwood. 2, M. Brown, Ab Kettleby, Melton Mowbray. 3, S. W. Hallam, Whitby, Leicester.

HAMBURGERS.—Silver.—1 and 2, Withheld. 3, W. Lappage, Spittlegate, Grantham. Gold.—1, S. W. Hallam. 2, J. Ward, Ashby-de-la-Zouch. 3, W. Holmes, Jan., Grantham.

FRENCH.—Houdan.—1, G. W. Hubbard, Godley, Hyde, Manchester. 2, J. Elgar, Newark. 3, H. V. Storey. 4, *Crève-Cœur*.—1, W. Cutlack, Jan., Littleport. 2, G. W. Hubbard. 3, Mrs. Cross, Bright. *loc.* W. H. Crabtree.

POLANDS.—1, G. W. Boothby, Lenth. 2 and 3, No competition.

BANTAMS.—Game.—1, 2, and 3, *Disqualified*. J. Eaton, Grantham. 3, J. Mayo, Gloucester. *loc.* C. Pole, Grantham. 4, J. Waters, Elsham, Drigg. Any other variety.—1, J. Walker. 2, R. S. S. Woodgate. 3, J. Mayo.

ANY OTHER VARIETY.—1, W. Cutlack, Jan. (Black Hamburgh). 2, Rev. N. J. Elgar, Newark. 3, R. S. S. Woodgate (White Silkie).

SELLING CLASS.—Cock.—1, W. Roe, Newark (Silver-Gray Dorking). 2, J. Waters (Black Red). 3, J. Hornsby, Grantham (Dark Dorking). 4, G. W. Boothby (Poland). *Disqualified*, J. Walker. *Hens*.—1, J. Waters (Black Red). 2 and 4, J. Hornsby (Dark Dorking). 3, R. E. Duckering (Game). 5, C. J.

Hornsby (Dark Dorking); G. W. Boothby (Poland); C. Millhouse, Wootton Bassett, Grantham (Dark Dorking).

GREYS.—1, J. Walker. 2, F. M. Derry, Godney. 3, M. Kew, Oakham.

DUCKS.—Aylesbury.—1 and 2, J. Walker. 3, J. Hornsby. Rouen.—1, J. Walker. 2, R. Swan, Lincoln. 3, T. Halmshaw, Earlsheaton, Dewsbury. Any other variety.—1, J. Walker. 2 and 3, No competition.

TURKEYS.—1, Rev. N. J. Ridley, Newbury. 2, E. Kendrick. 3, J. Walker. *loc.* M. Kew.

GUINEA FOWLS.—1, R. S. S. Woodgate. 2, W. H. Young, Great Driffield. *loc.* W. Dunning, Howell, Stamford; E. Smith, Barrowden, Stamford.

SELLING CLASS.—1, 2, and 3, Withheld. 3, W. Roe, Newark (Rouen Drake and Duck). 4, G. W. Boothby (Golden Poland).

EXTRA STOCK.—C, R. E. Godfrey, Grantham (Gold-faced Sebrights).

PIGEONS.

CARRIERS.—1, H. Yardley, Birmingham. 2, J. Elgar, Newark.

POUTERS.—1, H. Yardley.

TUMBLERS.—1, H. Yardley. 2, No competition.

ANY OTHER VARIETY.—1, H. Yardley (Black Barbs). 2 and 3, A. Pick, Grantham (White Dragons).

Mr. Edward Hewitt, of Birmingham, and Mr. Tegetmeier, of London, were the Judges.

TONG AND DUDLEY HILL POULTRY SHOW.

The fourteenth annual Show took place on the 25th inst. at Dudley Hill, and, the day being fine, there was a numerous attendance of visitors. The entries were not good in some classes, which is a matter of surprise to us, for the management is very good.

Spanish were very good, the hens especially. In *Cochins* Buifs were first and Whites second, both pens being good. In *Game* Brown Reds won in the first class and were well placed, the second pen not matching well in legs; and in *Duckings* the first were a grand pen. There were nine single hens, and most were good; the first a well-developed Silver Poland, and the second a good *Spanish*. In *Hamburgs* Mr. Beldon had it to himself with the exception of one entry, as also in *Polands*, where the prizes were rightly placed on Silver and Golden respectively. In *Brahmas* the first were young and well grown; while the second, which were old birds, were very large, especially the hen. *Guine Bantams* were very good, the first a nice stylish pen of Black-breasted Reds, second Piles; and in other varieties the first were a good pair of Black chickens. In single cocks were six entries, the first a Gold Poland, and second Brown Red Game.

In *Ducks* only the first-prize pen of Rouens were of any quality; but these, though in the middle stage of moult, were very good.

Pigeons mustered pretty well considering the classes, and the quality of the birds shown was very good, but the whole of Mr. Horner's pens were empty.

There were two classes for *Rabbits*, but we had a difficulty in understanding the classification, the first class being for *Spanish*; and here a Belgian Hare was put first and a Silver-Gray second, and in the next two splendid Lops were placed first and second. We would advise a reconstruction of the whole of the schedule.

SPANISH.—1, H. Beldon, Bingley. 2, J. Thresh.

DORKING.—1, H. Beldon.

COCHINS.—1, Shackleton & Irving, Bradford. 2, H. Beldon.

GAME.—Black-breasted or other Red.—1, E. Aekroyd, Ecclesall. 2, H. Beldon, westgate Hill. *loc.* W. Fell, Adwalton. Duckwinged or other Grey or Blue.—1, H. C. & W. J. Mason, Birstal. Black, Brass-winged, or Pale Game.—1, R. Walker, Goumsall. 2, H. C. & W. J. Mason.

ANY BREED.—Hen.—1, H. Beldon. 2, J. Thresh.

HAMBURGH.—Golden-spangled.—1 and 2, H. Beldon. Silver-spangled.—1 and 2, H. Beldon. Golden pencilled.—1 and 2, H. Beldon. Silver-pencilled.—1 and 2, H. Beldon.

POLISH.—1 and 2, H. Beldon.

BRAMA POOTRA.—1 and 2, H. Beldon.

BANTAMS.—Game.—1, G. Noble, Dewsbury. 2, A. Sugden, Cleckheaton. *loc.* A. Sugden, G. Noble; A. Smith, Northwain. Any other variety.—1, A. Smith.

2, C. & J. Hingworth, Birston; J. Waddington, Grimsley.

ANY BREED.—Cock.—1, H. Beldon. 2, H. Beaman.

DUCKS.—1, J. Ward, Drighlington. 2, J. R. Pollard, Wibsey.

GEES.—Rouen.—1, F. Halmshaw, Earlsheaton. 2, J. R. Pollard, Wibsey.

PIGEONS.

CARRIERS.—1, J. Hawley, Gillingham. 2, B. Rawnsley, Bingley.

TUMBLERS.—1, F. Clayton. 2, J. Hawley.

DOUBLES.—1 and 2, J. Hawley.

J. HAWLEY.—1 and 2, F. Holt. *loc.* J. Hawley; E. White, Manchester.

EXTRAS.—1, R. White. 2, J. Hawley.

CARRIERS OR POUTERS.—1, J. Hawley. 2, E. Horner.

ANY OTHERS.—1 and 3, F. Clayton. 2, J. Hawley. *loc.* B. Rawnsley.

NOSES.—1 and 2, J. Hawley.

OWLS.—1, B. Rawnsley. 2, R. White.

ANY OTHER VARIETY.—1, J. Hawley. 2, W. Tetley, Birkenshaw.

DRAGONS.—1, B. Rawnsley. 2, F. Clapham.

RABBITS.

SPANISH.—Duck or Doe.—1, J. Thorp, Birkenshaw. 2, G. S. Barton, Beeston, Leeds. *loc.* C. L. Saclie, Tong; S. Adams, Bradford; J. Chapple, Dewsbury Moor; W. Miller, Bradford; A. Cutler.

COMMON.—Duck or Doe.—1 and 2, G. S. Barton. *loc.* W. Gibson (2).

The Judge was Mr. James Dixon, of Bradford, assisted by Mr. Joseph Walker, of Birstwith, Ripley.

ROCIDALE POULTRY SHOW.—The poultry classes are for single young birds, with the exception of Ducks, Geese, and Turkeys, which are in pairs. There is a special extra prize for the best Dorking cockerel. For Pigeons there are twenty-eight classes, four of which are for Carriers, Barbs, Antwerps, and Dragons bred in 1874. There are five silver medals as extra prizes given

by one or two local amateurs. There are eight classes for Rabbits, and one silver medal as an extra prize.

SELBY POULTRY SHOW.

The first attempt to hold a show of poultry at Selby was made on the 23rd inst., and we are glad to say with unexpected success, the entries being so good that the Committee will, doubtless, add to their next schedule Pigeons and Rabbits, and thus provide for various tastes. The attendance was very good. Turner's pens were used, and the attention to the birds was an example for more extensive societies.

Dorkings had four entries, and the birds were good. The first prize went to a remarkably well-moulded pen; while in *Cochins* the birds were also very fair. In *Spanish* Mr. Thresh stood first and second, Mr. Wilkinson coming in a good third; but we were surprised to find that Messrs. Newbitt did not show, being so near Epworth. Of *Brahmas* there were thirteen entries, and a fair lot; while of *Game* we were sorry to see so few. *Hamburghs* were mixed classes, which we will again pronounce a mistake fatal to success in entries. *Game Bantams* were poor, while the first-prize Blacks were very good. Cross-bred or other fowls were very good in both classes; the chickens numbering sixteen entries.

The *Geese* and *Ducks* were pretty fair; but of *Turkeys* there were no entries, which surprised us, this being purely an agricultural district.

DORKING.—1 and 3, W. Morfitt, Goole. 2, T. P. Carver, Langthorpe.
COCHIN.—1, Copley, Holmes, and Pardon, Driffield. 2, F. Horsman, Borough-bridge. 3, H. Bleasby.
SPANISH.—1 and 2, J. Thresh. 3, H. Wilkinson, Skipton.
BRAHMA.—1, H. Wilkinson. 2, W. Middleton, Longgate. 3, U. Brookshank.
GAME.—1, Copley, Holmes, & Pardon. 2, G. Roberts.
HAMBURGH.—*Gold and Silver-spangled.*—1, Copley, Holmes, & Pardon. 2, T. P. Carver. 3, Mrs. Newton, Epworth. *Gold and Silver-pencilled.*—1, G. W. Gibbs. 2, F. Kelsey. 3, Copley, Holmes, & Pardon.
CROSS-BRED.—1, W. H. Young, Driffield. 2, Mrs. Webster, Burn. 3, J. Hawcroft, Womersley. *hc.* R. Adams, jun., Selby; A. Wright, Selby; J. Grace, Selby.
ANY BREED OR CROSS.—Chickens.—1, Dr. Cameron, Epworth (Brown Red Game). 2, J. York (Dark Brahmas). 3, E. Clayton, Keighley (Gold-pencilled Hamburgs). Equal 2 and 3, T. P. Carver, *hc.* Mrs. Houfe, Broughton; Copley, Holmes, & Burdon; U. Brookshank, Driffield; Gates; G. W. Gibbs; Dr. Cameron (Brown Red Game); W. G. Waters, Elsham Bridge (Dorkings).
ANY VARIETY.—Cock.—1, Copley, Holmes, & Pardon. 2, F. Kelsey (White Cochins). 3, J. Houfe (Game). *hc.* H. Staniland (Brahma); T. P. Carver.
SEEDLING CLASS.—1, J. Gladwin, Bulwith (Dorkings). 2, J. York, Gateforth (Brahmas). 3, T. P. Carver. *hc.* W. Morfitt (Dorkings).
LOCAL CLASS.—1, J. Houfe (Black Red Game). 2, W. Dransfield, Brayton. 3, J. Howcroft, Burn (Golden-spangled Hamburgs).
GESE.—*Any Breed.*—1, O. A. Young, Driffield. 2, J. B. Hepworth, Hatfield. *hc.* J. York, Gateforth; — Abbott, Cliffe; T. Balderson, Bellby.
DUCKS.—*Aylesbury.*—1, T. P. Carver. 2, Mrs. Backhouse, Burn. *Route.*—1, T. P. Carver. 2, O. A. Young, *hc.* T. Hainshaw, Karsheaton; T. Balderson. *Any other Variety.*—1, T. P. Carver. 2, J. J. Brown, Althorpe (Muscovy). *hc.* Mrs. Parker, Selby; J. Hawcroft, Womersley (White Spanish).
GUINEA FOWLS.—1, Mrs. J. Barker, Cambleforth.

JUDGES.—Messrs. Cannan and Sales.

SOUTH MOLTON POULTRY SHOW.

This was held on the 23rd inst., when the following awards were made:—

BRAHMA POULTRY.—*Dark.*—1, H. Feast, Swanssea. 2, E. Sanders, Chittlehampton. *hc.* Mrs. Arundell, Lifton, Devon; W. Huxtable, Whiddon, Barnum. *Light.*—1, H. Feast. 2, Mrs. J. T. Holmes, Bath. *hc.* J. Gaydon, Newport, Barnum.
COCHIN-CHINA.—1, C. H. Braddam, Barnum. 2, H. Feast. *hc.* Mrs. J. T. Holmes; F. Denner, Yeo, Marionsleigh. *hc.* Mrs. Arundell.
DORKING.—1, H. Feast.
FRENCH.—1, H. Feast.
GAME.—Black-breasted Red.—1, J. Westacott, Barnum. 2, J. Boyles, Barnum. *hc.* R. Wilkinson, Brillwater. *Any other variety.*—1, W. Huxtable. 2, J. Westacott. *hc.* H. Feast. *c.* F. Laxton, South Molton.
HAMBURGH.—*Gold-spangled and Pencilled.*—1, H. Ascott, Tiverton. 2, H. Feast. *Silver-spangled and Pencilled.*—1, H. Feast. 2, H. Ascott. *hc.* S. Spilard, Chittlehampton; G. Westacott, Chittlehampton. *c.* J. Bebb, Bath; S. Osmond, South Molton.
MALAY OR INDIAN GAME.—1, W. Huxtable. 2, W. Joint, Larnstaple. *hc.* F. Davills, Filton. *hc.* *hc.* and *c.* T. Joint.
SPANISH.—2, H. Feast.
ANY PURE BRED.—Cock.—1, W. Clarke, South Molton. 2, W. Sanders. *hc.* H. Feast.
BANTAMS. *Game.*—1, Coon, Bros., St. Austell. *Any other variety.*—1, R. L. Hole, Hannaford. 2, J. Bullen, Newport.

PIGEONS.

CARRIERS.—1, J. Bullen.
BARRIS.—1, T. L. Smyth, Newport. 2, G. H. Gregory, Taunton. *hc.* J. D. Mohr, Exeter. *c.* C. Watts, Chittlehampton.
POULTRY.—1 and *hc.* G. H. Gregory. 2, G. Parkham, Exeter.
FANTAILS.—1, J. L. Smyth. 2, G. H. Gregory. *hc.* F. Toogood.
TOUMBLETS.—1, G. Parkham. 2, J. Bullen.
ANY OTHER VARIETY.—1, G. Parkham. 2, J. L. Smyth. *hc.* J. Bullen (2); J. L. Smyth (2); J. P. Mills, Exeter.

LOCAL PRIZES.

BRAHMAS.—1, J. Vickery, Chittlehampton. 2, W. Sanders. *hc.* H. Mogridge, South Molton. *hc.* G. Frideaux, South Molton.
BAUNDOCK.—1, W. Mogford, South Molton. 2, W. Ayre, Pillavens, Bishops-sympton.
DORKINGS.—1, W. Blackford, South Molton. 2, F. Moore, South Molton.
FRENCH.—1, J. Bawden, South Molton.
GAME.—Red.—1, F. Huxtable, South Molton. 2, W. O'Neil, Bishops-sympton. *hc.* R. S. Brann, South Molton (?); J. Huxtable. *hc.* W. O'Neil. *c.* F. Rodd, Bishops-sympton. *Any other variety.*—1, W. Baker, South Molton. 2, W. Sanders, South Molton. *c.* J. Bawden; J. Lee, Bishops-sympton; F. Toogood, South Molton (2).
MALAY OR INDIAN GAME.—1, F. Moore. 2, S. C. Blackford, South Molton. *hc.* W. G. Smyth, South Molton; F. Moore; W. Clarke, South Molton (2).

MINORCAS.—2, R. Allen, Filleigh.
SPANISH.—1, S. Osmond, South Molton.
BANTAMS.—Game.—1, Miss M. Gould, South Molton. 2, E. Lethbridge, South Molton.

THE POULTRY-KEEPER.—No. 13.

THE DORKING.

HEN—GENERAL CHARACTERISTICS.

The principal characteristic of the Dorking hen is its bent comb, of middle size, and sometimes double and denticulated, but then rather small. She has a small round body, the tail rather thin, short feet, and five toes on each foot. The eye and the nature of the foot are the same as in the cock. In weight, shape, and walk, she is much like the Crève-Cœurs. She lays well and early, sits well, and her eggs are of medium size.

PLUMAGE.

The head feathers and the hackle are whitish at the edge, black in the middle, and form a marked line which is very distinct from the body (fig. 31). The edge of the cheeks and round

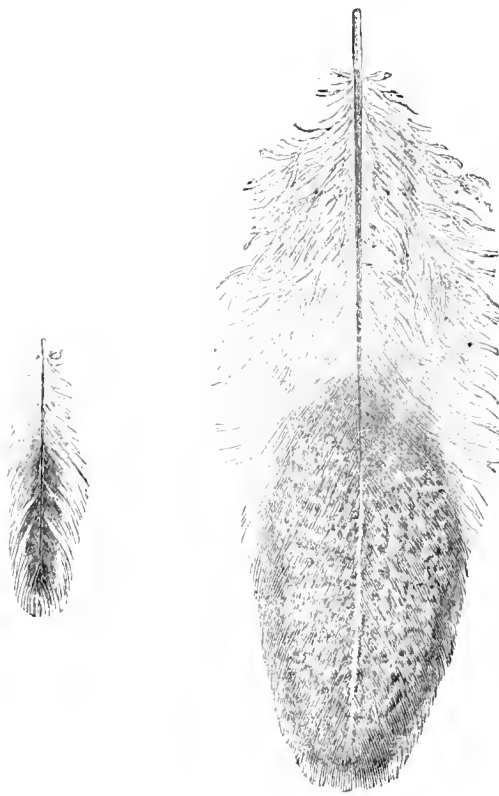


Fig. 34.

Fig. 35.

the neck to under the beak are covered with small, short, black feathers, forming a kind of collar, but not joining behind is more like the gorget of an officer. The tuft is of a clear pale grey. The top of the back is of a grey chestnut brown, which becomes russet on the shoulders and the coverts of the wings. The large feathers of the shoulders are spotted, the large flight-feathers brownish-black. The breast is of a clear chestnut-red; the thighs deep greyish-red; the rump grey; the large tail feathers brownish black. All the plumage is of a very bright colour, occasionally passing and mingling with that of the adjoining part. The feathers are often bordered, which gives a scaled appearance to the whole plumage. But the most characteristic is a white line, almost pure, which marks the whole length of the visible part the shaft of each feather (fig. 35). This bright hue is very apparent on the back, the shoulders, and the coverts of the wing, losing its intensity at the lower parts and extremities.

Much variety occurs in this breed in regard to plumage, which may be found almost of every colour, from pure white to black.

GENERAL CONSIDERATIONS.

The Dorking is very precocious and of very fine flavour. The flesh is white, juicy, and retains the fat well in cooking. Trussed it is of good appearance. Its food is thick dough of barley meal or oatmeal, varied with ground maize and whole barley; but the maize must be used sparingly, as it is too fattening.

local competition only; and in Pigeons there are eight classes, the prizes being 10s. and 5s.

KEIGHLEY POULTRY SHOW.

THE thirty-second annual Show was held at this busy thriving centre of industry on the 24th inst., being fully one month earlier than in former years, and so arranged to meet the wishes of the employers of labour, who are very numerous in this locality. This may answer the purposes of these gentlemen, who thus wish to throw the two holidays—viz., the Feast and the Show, together; but we question very much the policy as regards the Society, for at this time the exhibitions are very numerous, and the entries in all sections suffer to some extent; though those of which we write were much better than we expected, having suffered less than the agricultural department, the most marked difference being that the chicken section did not contain birds so well developed as we have generally found them. The pens were on Turner's principle in some parts, and in others substantial wooden ones belonging to the Society were used. The weather was not all what we could have wished, as very heavy thunder showers fell, and so wetted the birds that the classes not previously judged presented that bedraggled appearance that is so unwelcome to those who arbitrate.

In poultry we found some good stock, many old acquaintances in old birds coming to the front. The noticed pens in Buff *Cochin* chickens contained grand pullets, but the cockerels had a rather young and raw appearance. In any other colour of chickens Mr. Sidgwick showed good Partridge, and a pen of Blacks from Mr. Feast showed some progress in this breed. In *Brahmas* Mr. Ansell's first were very good and well merited their position, and that gentleman's chickens were a credit to the yard, several other pens being good. In *Light Brahmas* both first prizes fell to the lot of Mr. Beldon, the chickens, especially the pullet, being very good in colour and marking. Adult *Spanish* were of moderate quality, but most of these birds want rest; but in young ones we were surprised to find such forward birds. Of *Silver-pencilled Hamburgs* there were only two entries, but there were five pens of chickens, the pullets proving much better than the cockerels. Old *Silver-spangled* were good, and the winners in chickens choice. In aged *Golden-spangled* the first-prize cock appeared to be the best, but we think the merits of the second-prize hen far outweighed him in points; but the pens were wet when we looked them over. Young were, first a grand forward pen; but second, though of the right stamp, nowhere in age. *Gold-pencilled* were, first a good even pen, the second lacking little of the first. Young had eleven entries; the cockerels good, but the pullets too open in marking. Adult *Black Hamburgs* were very good, and so were the young birds, these being forward and in good trim. *Polish* were—*Silver* first and *Gold* second, and in young the winners were *Silvers*. In young *Dorkings* the awards must have gone on the wrong pens, for the second were as good in points, and by far the largest. The whole class showed well for the time of year. *Red Game* comprised a fine pen of *Brown Reds* in prime order first; and second a grand pair in full moult; *Brown Reds* winning also in young. In adult *Game* of any other kind *Duckwings* won, and in chickens the first were *Duckwings* and the second *Piles*. In adult *Game Bantams* the winners were *Black Reds*, smart in style and good in colour; and in chickens were the best pair of *Piles* we have seen this year, the second also being *Piles*. The *Black Bantam* chickens were poor if we except the first-prize winners, and *Black* won in both cases in the next class. In *Ducks* Mr. Walker stood first in both classes, Mr. Newton coming in a good second in both cases.

PIGEONS.—The Pigeon schedule is not the most attractive that can be desired, but we believe this defect will be remedied at future shows. The silver cup for the best pen was awarded to a *Black Carrier* cock of good points; four out of the five being *Carriers*, and all birds of merit. In *Pouter* cocks, first was a long, slim, stylish *Blue*, but rather short of marking; second a good long-limbed *White*, all the others being noticed; and in hens the first was *Blue* and second *Red*. *Carrier* cocks were: First the above-named *Black*, and second a *Dun* in fine condition; Mr. Yardley's *Long-faced bird* being highly commended. In hens the first was *Black*, the second *Dun*. In *Almond Tumblers* Mr. Yardley won with a smart cock, good in head properties, style, and carriage; and in the next class Mr. Horner's *Yellow Mottle* was a little gem; the second, a *Kite*, had a very good head. Of *Bulls* and *Beards* there were only two entries, and of *Owls* only four. If the classification had been better there would doubtless have been a dozen at least. *Turbits* were: First a neat *Yellow* and second *Red*. In *Jacobins* both were *Red*, good alike in hood, chain, and colour, while a very neat *Yellow* was highly commended. *Fantails* carried off the honours to Newark again in both cases, and in *Barbs* Mr. Hawley out-distanced all competitors with two capital *Duns*. *Dragoons* were a large class, and the competition very keen. Two extra prizes were awarded. The first, third, and fourth were

Blues, and the second *Red*. *Maggies* were good, the first *Yellow* and the second *Red*. *Archangels* were a fair class. *Antwerps* were very good, the first prize in this class going to a bird known as a good *Red Chequer Short-faced*, which was known and practised with when most of the present fanciers were boys, and withal an extraordinary bird. Second a *Red Chequer Long-faced* hen, such as is rarely seen. A very pretty *Fairy Swallow* won in the *Variety* class, a good *Nun* being second, and a *Spangled Fairy Swallow* third.

RABBITS had four classes. The first in bucks was a grand young *Fawn*, 21 by 1½ inches in ear, in fine bloom. Second a *Tortoise-shell*, 22 by 13, but in the worst possible order—so bad, in fact, that we hesitated as to withholding the second award altogether. In does the first prize went to a *Fawn*, 21½ by 1½ inches, from the same exhibitor—viz., Mr. Myton, and was well shown, the second being only 18½ by 4. *Black-and-white Bucks*, Any other variety, were first a *Silver-Grey*, and second a *Belgian Hare*. The awards in the doe class were made in a similar manner, the first-prize doe being a grand specimen of her kind.

COCHIN CHICKENS (Buff).—1, W. H. Crabtree, Levenshulme, Manchester. 2, W. A. Taylor, Manchester. 3, J. Walker, Rochdale. 4, Sidgwick, Keighley. *Chickens*.—1 and 2, C. Sidgwick. 3, H. Beldon, Goldstock; W. A. Taylor. 4, J. Naylor, Oakworth, Keighley.

COCHIN CHICKENS (Any colour).—1, W. Whitworth, jun., Longsight, Manchester. 2, W. A. Taylor. 3, H. Beldon. *Chickens*.—1, W. A. Taylor. 2, C. Sidgwick. 3, C. Sidgwick; H. Beldon. 4, Feast, Swansea; W. Mitchell, Birkenhead, 5, H. Wilkinson, Earby, Skipton.

BRACHAS (Dark).—1 and 2, F. F. Ansell, Cowley Mount, St. Helen's. 2, W. H. Crabtree. *Chickens*.—1, F. F. Ansell. 2, R. P. Perival, Northenden, Manchester. 3, W. H. Hodgson, Keighley; H. Beldon; W. Schofield, Birkenhead; W. A. Wright, Birkdale.

BRACHAS (Light).—1, H. Beldon. 2, J. Mitchell, Mosley, Birmingham. 3, W. Whiteley, Clough Bank, Sheffield. *Chickens*.—1 and 2, H. Beldon. 3, J. Mitchell.

SPANISH (Black).—1 and 2, J. Leeming, Broughton, Preston. 2, H. Beldon. *Chickens*.—1, H. Beldon. 2, J. Roberts, jun., Silsden. 3, J. I. Booth, Silsden; 4, J. Spence, Silsden.

HAMBURGS (Silver-pencilled).—1 and 2, H. Beldon. *Chickens*.—1, H. Smith, Keighley. 2 and 3, H. Beldon.

HAMBURGS (Silver-spangled).—1 and 2, H. Beldon. *Chickens*.—1, T. Fawcett, Baildon. 2, H. Beldon. 3, H. Beldon; F. Fawcett.

HAMBURGS (Golden-spangled).—1, G. & J. Duckworth, Church, Accrington. 2, T. Dean, Keighley. 3, H. Beldon. *Chickens*.—1, T. E. Jones, Wolverhampton. 2, T. Dean.

HAMBURGS (Golden-pencilled).—1, H. Beldon. 2, G. & J. Duckworth, H. Beldon; W. Clayton, Keighley. *Chickens*.—1, W. Driver, Keighley. 2, E. Clayton, Keighley. 3, H. Beldon (2); F. Fawcett; W. Clayton. 4, J. Walker, Birstwith, Ripley.

HAMBURGS (Black).—1 and 2, H. Beldon. 3, C. Sidgwick; T. W. Holmes, Ruscroft, Baildon. *Chickens*.—1 and 2, C. Sidgwick. 3, H. Robinson, Westgate, Baildon (2); H. Beldon. 4, H. Shackleton.

POLISH (Any variety).—1 and 2, H. Beldon. *Chickens*.—1, T. Dean. 2, J. Fowler, Keighley.

DORKINGS.—1, J. Walker. 2, T. Briden, Cononley, Leeds. *Chickens*.—1 and 2, S. Brierley, Ending, Rochdale. 3, R. W. Richardson, Meanx Abbey, Beverley; T. Briden (2).

GAME (Black, Red, or Brown).—1, C. W. Brierley, Middleton, Manchester. 2, J. Fortane, Morton Banks, Keighley. 3, J. W. Thorntun, Bradford. 4, E. Aykroyd, Eccleshill, Leeds. *Chickens*.—1, E. Lard, Cuddingworth, Bingley. 2, F. Dyson, Halifax. 3, W. Thorton, Coates, Barnoldswick; J. Carlisle, Earby, Skipton; E. Aykroyd.

GAME (Any other variety).—1, J. A. & H. H. Staveley, Driffield. 2, R. Walker, Gomersal. 3, J. Mason, Worcester. *Chickens*.—1, Wilson & Hodgson, Ilkington, Halifax. 2, J. W. Thorntun, Bradford. 3, Wilson & Hodgson; J. Jowett, Clayton, Bradford.

BANTAMS (Game).—1, G. Hall, Kendal. 2, A. Smith, Northwram, G. G. Hall; G. Anderson, Accrington. *Chickens*.—1 and 2, W. F. Entwistle, Westfield, Bradford. 3, Noble, Stanchfield, Dewsbury; G. Hall.

BANTAMS (Black).—*Chickens*.—1, H. Beldon. 2, S. Milner, Keighley.

BANTAMS (Any other distinct breed).—1, W. H. Robinson, Long Lee, Keighley. 2, W. Moore. *Chickens*.—1, J. Walker, Rochdale. 2, W. Richardson, York.

DUCKS (Rouen).—1, J. Walker. 2, J. Newton, Silsden.

DUCKS (Aylesbury).—1 and 2, J. Walker. 3, J. Newton.

DUCKS (Any other variety).—1 and 2, H. B. Smith, Brooklands, Broughton. 3, J. Walker (2); H. B. Smith.

PIGEONS.—1, H. Beldon. 2, D. Sharp, Bingley. 3, W. Driver; F. Beutley, Bradford; H. Wilkinson. *Hens*.—1, H. Beldon. 2, J. I. Booth, Silsden. 3, J. Thresh.

EXHIBITOR OF THE BEST PEN.—1, J. Hawley, Gillingham.

POUTER OR CROPPER.—*Cock*.—1 and 2, J. Hawley. 3, E. Foster, Bingley; E. Horner, Harewood, Leeds (2). *Hens*.—1, J. Hawley. 2, E. Horner. 3, J. Hawley; E. Horner.

CARRIERS.—*Cock*.—1, J. Hawley. 2, E. Horner. 3, J. Thompson, Bingley. 4, H. Yardley, Birmingham; E. Horner. *Hens*.—1 and 2, E. Horner. 3, H. Yardley.

TUMBLERS (Almond).—1, H. Yardley. 2 and 3, J. Hawley. 4, E. Horner.

TUMBLERS (Any other variety).—1, E. Horner. 2, J. Hawley. 3, J. Hawley; J. Lister, Keighley; E. Horner.

BALD OR BEARDS.—1, H. Yardley. 2, W. Fawcett, Baildon.

OWLS.—1, E. Horner. 2, H. Yardley. 3, J. Mitchell, Keighley.

TURBIS.—1, H. Yardley. 2, T. Foster. 3, J. Hawley; E. Horner. 4, T. Foster.

JACOBINS.—1, J. Hawley. 2, J. Thompson, Bingley. 3, J. Powell, Bradford. 4, E. Horner; J. Powell.

FANTAILS.—1 and 2, J. F. Loversidge, Newark, Notts. 3, J. Thompson; J. Hawley.

BARBS.—1 and 2, J. Hawley. 3, H. Yardley. 4, F. Dean, Keighley; E. Horner.

DRAGONS.—1, R. Brotherton, Rakebank, Keighley. 2, J. Thompson. 3, H. Yardley. 4, A. Smith; J. Rushworth, Keighley; E. Horner; J. Smith, Keighley. 5, T. Smith, Keighley.

TRUMPETERS.—1, E. Horner. 2, H. Yardley. 3, J. Hawley.

MAGPIES.—1, H. Beldon. 2, E. Horner. 3, H. Beldon. 4, J. Hawley; E. Horner.

ARCHANGELS.—1, H. Yardley. 2, E. Horner. 3, J. Hawley; J. Thompson.

ANTWERPS.—1, S. Lister. 2, S. A. Lister, Keighley. 3, F. Lister. 4, H. Yardley. 5, T. Foster (2); J. Rushworth. 6, E. Horner.

ANY OTHER BREED.—1, J. Thompson. 2, J. Lister. 3, J. Hawley. 4, H. Yardley. 5, H. Beldon; H. Yardley; J. Hawley; T. Foster, Bingley; E. Horner.

SELLING CLASS.—1, H. Beldon. 2, E. Laycock, Keighley. 3, H. Beldon; J. Thompson; T. Foster; T. Rushworth. 4, E. Brown, Bingley.

RABBITS.

LONG-EARED.—*Duck*.—1, W. Miller & S. Adams, Bradford. 2 and 3, T. Myton,

York. *Doe*.—1, T. Mylon. 2, J. Moore, Keighley. c, Mitchell & Feather, Keighley.

ANY OTHER VARIETY.—*Buck*.—1, S. Ball, Bradford. 2, M. Marsland, Goolb. *he*, B. Swaro, Morley. *Bingley*. c, F. Brook, Morton Banks, Keighley. 1, Waterhouse, Willow Bank, Keighley. *Doe*.—1, S. Ball. 2, M. Marsland. *ch*, A. W. Whitehouse, Northampton. c, A. Broos, Morton Banks, Keighley; G. W. Riley, Keighley.

JUDGES.—*Poultry*: Mr. R. Taobay, Fulwood, Preston. *Pigeons*: Mr. E. Hutton, Pudsey, Leeds.

ALFORD POULTRY SHOW.

This well-conducted Show is only the second that has been held at Alford, and it is a pleasure to say that the entries proved in number more than double those of last year, a proof, if any were wanting, that both exhibitors and the public generally always hold in proper estimation the care and attention of the Managing Committee in reference to everything conducive to the welfare of the Society. No doubt exists but that it will progress with even more rapid strides than it has done. The Show took place on the 28th inst. under two of the best tents we can call to recollection, each being 160 feet long by 45 feet wide, and the ventilation of these immense tents was absolutely perfect.

Grey *Dorkings*, both cocks and hens, were so good as to receive in both classes an extra prize, which was as fully deserved by the birds as it was spontaneously given by the Committee as soon as they were made aware of the excellence of the competition. The Buff *Cochins* were also fine classes, but some few were deeply moulting. Messrs. Darby and Tomlinson were the chief prizetakers. In an open class for *Cochins*, any other colour except Buff, a grand White cock stood first, the property of Mr. Woodgate, and Mr. Crabtree's Partridge-coloured cock second. In hens the first was again a White, and an unusually fine Black *Cochin* stood second, now the property of Mr. Alfred Darby. Strange to say, *Brahmas*, though forming large classes, were not nearly so good as might have been anticipated, the prize birds excepted. The grandest pair of Dark *Brahma* chickens, shown by Mr. Lingwood, were however to be seen in the class for chickens, and proved one of the gems of the Show. Some very heavily-faced *Spanish* fowls were shown, but mostly of far coarser character of face than is desirable. Mr. Julian, of Hull, sent some admirably-shown *Game* fowls, and was successful in this division of the Show. The Brown Red hens are worthy also of special mention. *Houblers* were large entries, but, excepting the prize birds, were not specially noteworthy. On the contrary, *Cree-Cours* were generally good. *Polish*, both Golden-spangled and Black ones, were far better than common. Messrs. Boothby and Darby here dividing the spoil. *Hamburghs* throughout proved capital, some of the Pencilled ones being shown in extraordinarily fine plumage, and health. A few very fine specimens of *Game Bantams* could be selected out of well-filled classes, and here Mr. Newbitt was the most successful winner. Many of the *Bantams* were, however, fast falling into moult. The class for *Barn-door* fowls brought together admirable specimens for the table of cross-bred birds. *Leghorns* were superior, both Brown and White competing. *Silkes*, for which a class was specially appointed, were good, but a general fault of shortness of leg-feather prevailed throughout the whole of them.

Rouen *Ducks* were very fine, and the only pen shown of Ayresburys was praiseworthy. In the Variety class for Ducks, Vidua Whistling Ducks and common Whistling Ducks were the winners, both being shown in admirable plumage. *Geese* and *Turkeys* were also most creditable, but with a limited entry. We congratulate the Committee on the weather proving most favourable, and the Show a great success.

Mr. Edward Hewitt, of Sparkbrook, Birmingham, judged the poultry. Appended are his awards, but those for the Pigeons and Cage Birds had not reached us at the time of going to press.

DORKINGS.—Cock.—1, A. Darby. 2, J. Walker. 3, W. Moritt. Hen.—1, J. Walker. 2 and 3, W. Moritt. 3, A. Darby.

COCHINS.—*Cinnamon* or Buff.—Cock.—1, A. Darby. 2, H. Tomlinson. *he*, F. Winwood. 3, W. H. Crabtree. Hen.—1, H. Tomlinson. 2, W. H. Crabtree. *he*, J. Walker. A. Darby.

COCHINS.—Any other variety.—Cock.—1, R. S. S. Woodgate. 2, W. H. Crabtree. *he*, W. Whitworth, jun. A. Darby. Hen.—1, W. Whitworth, jun. 2, A. Darby. *he*, T. M. Berry. 3, S. W. Woodgate. 3, Darby.

BRAHMAS.—*Buck*.—Cock.—1, H. Feast. 2, Horae Lingwood. 3, J. Watts. Hen.—1, J. Watts. 2, W. H. Crabtree. 3, T. Dobson.

BRAHMAS.—*Light*.—Cock.—1, M. Leno. 2, Horae Lingwood. 3, W. H. Crabtree. Hen.—1 and 2, J. R. Marriott. c, W. H. Crabtree.

SPANISH.—Cock.—1, R. Newbitt. 2, L. Hibbit. Hen.—1, R. Newbitt. 2 and 3, W. Woodhouse. *he*, A. Darby.

GAME.—*Black Red*, or any other Red.—Cock.—1, H. M. Julian. 2, F. Sales. Hen.—1, F. Sales. 2, H. M. Julian. *he*, Miss G. B. Lister. 3, W. Hutton.

GAME.—Any other variety.—Cock.—1, H. E. Martin. 2, F. Sales. Hen.—1, F. Sales. 2, H. E. & I. A. Stately. c, F. G. Parkes.

HOUDBERS.—Cock.—1, J. W. Hibbit. 2, W. Dring. *he*, R. Coney. Hen.—1, W. Dring. 2, R. A. Boissier. *he*, J. W. Hibbit. 3, F. H. Atkinson. c, R. Coney.

POULTRY.—Cock.—1, G. W. Boothby. c, A. Darby. *he*, H. Feast. Hen.—1, G. W. Boothby. 2, A. Darby. c, T. C. Newbitt.

HAMBURGERS.—*Gold* or *Silver-spangled*.—Cock.—1, G. Robinson. 2, J. Robinson. *he*, I. W. Hargall. 3, J. Long. Hen.—1, J. Long. 2, J. Robinson. *he*, J. Pilkington. W. Hall.

HAMBURGERS.—*Gold* or *Silver-spangled*.—Cock.—1, J. Long. 2, J. Robinson. *he*, B. Compton. Hen.—1, W. Clayton. 2, J. Smith. *he*, J. Long. c, M. Leno.

BANTAMS.—*Black Red*, or any other Red.—Cock.—1, A. C. Bradbury. 2, J. Walker. *he*, J. Mayo. Hen.—1, Mrs. E. Newbitt. 2, J. Walker. *he*, A. C. Cauty; J. Wells; Dr. G. Walker; A. Darby.

BANTAMS.—Any other variety of *Game*.—Cock.—1, Mrs. E. Newbitt. 2, J. Mayo. *he*, A. Darby. Hen.—1, A. Darby. 2, A. Darby.

BANTAMS.—Any variety except *Game*.—Cock.—1, R. H. Ashton. 2, M. Leno. 3, J. Walker. *he*, C. Reel; J. Mayo. c, J. Watts. Hen.—1, M. Leno. 2, J. Walker. 3, J. Watts. *he*, R. H. Ashton. A. Cauty.

BARNDOOR, OR ANY CROSS-BRED FOWL.—1, G. Pounder. 2, J. Ireland. *he*, H. W. Boutoff. c, W. H. Young; R. Coney.

LEGHORN, OR ANY OTHER AMERICAN VARIETY.—1 and *he*, Miss Jacobin. 2, A. Kitchen.

SILKES.—1 and 2, R. S. S. Woodgate. *he*, A. Darby.

ANY PURE VARIETY.—1, W. Cuthbert, jun (Cr. Co. Co. Co.). 2, M. A. Mason.

SELLING CLASS.—1, Miss Jacobin (Dark *Brahma*). 2, Mrs. Cropper (Partridge *Cochin*). *he*, — Filkes (Cree-Cours); J. M. Atkinson (Polish). c, G. G. Cave (Cochin); S. Brown (Silver-spangled *Poland*).

DUCKS.—*Rouen*.—1, J. Walker. 2, W. Bygott. *he*, S. Saul. *Aylesbury*.—1, J. Walker. 2, No competition. Any other variety.—1, M. Leno. 2, J. Walker.

GESE.—1, J. Walker. 2, T. M. Berry.

TURKEYS.—1, M. Kew. 2, C. Lewis.

CHICKENS.

BRAHMAS (Light or Dark). *Cochins*, or *Dorkings*.—1, Horae Lingwood. 2, G. F. Hulme. 3, B. Dawson. c, R. E. Foster.

ANY OTHER VARIETY.—1, E. Winwood (Game). 2, W. Dring (Houblers). 3, M. Leno (Laced *Bantams*). *he*, T. Dyson (Brown Red Game); R. Coney (Houblers).

BRAMLEY POULTRY SHOW.

We are happy to record an unexpected success on the part of the Bramley Committee, one of the most spirited Committees of those who conduct the Yorkshire shows. The Exhibition at Sheffield was unfortunately arranged for the same date, and yet the entries far surpassed those of any previous year. And not alone were the entries good, but the quality quite startling to those who expected an easy victory; and we should fail in our duty if we did not speak of the energy and perseverance of the Committee and the Honorary Secretary. Through some irregularity on the part of the railway company the pens were not delivered till long after they ought to have been put up, and this retarded the judging so much that it did not commence till after one o'clock, and yet with nearly five hundred entries the awards were completed before four o'clock. The tent was a grand erection, and the birds well fed and watered.

Spanish were first, and a good class, the winning cocks showing great quality. In *Cochins* the first were Whites and second Buffs, both being very fine. *Brahmas* were all Dark and very good. The second-prize birds were chickens, and the third a little too grey on the fluff. *Game* were poor in all cases, save as regards the first-prizewinners. The *Hamburghs* proved good, and the cup for the best pen in the Show was given to Golden-pencilled, this pen containing such a cock as it is seldom our lot to see. *Game Bantams* were good entries. In pairs the first were good Black Reds and second Pile. The Blacks were grand. In *Ducks* Rouens won all the prizes in the first class, and in the following Mr. Binns had no less than seven entries—more for a show than ought else; and among the lot was one splendid pair of African Gallinules, which excited great admiration.

Chickens were very good and well-grown *Brahmas*; and the second, also of that kind, were very good. In single cocks the first were Buff *Cochins*, second White *Cochins*, and third Gold *Polands*.

PIGEONS.—A magnificent Blue *Pouter* cock won the cup, hard run by a good Black belonging to the same exhibitor. The Carriers proved a good class, with Duns first and second, and Blacks third. *Dragons* were very good, the first a grand Blue, second Silver, and third Yellow. If the cup had not gone to the *Pouter* there is no doubt but that the English Owl would have been the recipient, this being a grand bird of his kind. The second prize went to Blue, and the third to Powdered Blue. *Turbits* were a great credit to one yard; the first and third Yellow, and second Red. *Jacobins* were good, the first two Yellow, and the second Red. *Trumpeters* were of moderate quality, but Tumblers (Long-faced) good; the first Red Mottle, second Blue Bald, and third Black Mottle. Tumblers (Short-faced), were first Red Mottle, second Almond, and third an Agate. *Barbs* were good; the first rather dirty, but quite a model Red, and second and third Blacks. The Antwerps in all classes were good, the winners in all sections very good, and the classes well filled. In Nuns and Magpies the first was a Nun, second and third Magpies. The Variety class contained good birds; the first a Pigmy *Pouter*, second a Foreign Owl, and three third prizes were awarded. The Selling class contained very cheap and good birds.

RABBITS were in great force, and almost all in Lop-ears were noticed, the first going to a Fawn-and-white buck in grand order, 21 by 14 inches; second a Tortoiseshell buck, young and rather small, but full of bloom, with good carriage, 21 by 14; the third being an immense Tortoiseshell doe, 20 by 14 inches. Silver-Greys were of moderate quality, the winners even in colour; and Himalayans fair. The cup for Rabbits was given to a grand Angora faulty only in ears, which were a little too large, but of such quality and quantity of wool as is rarely seen. The Variety class was a most interesting one to people not acquainted with Rabbits, the first award going to a good Blue Dutch; second to a Belgian Mare, large and good in most points; and third to a Black Dutch. An extra third prize was taken by an immense Patagonian.

There was a moderate show of Cage Birds, the winner of the cage being a well-marked Norwich bird. We published the awards last week.

DOGS.—No. 3.

OFFICIAL DOGS.

LEAR.—Thou hast seen a farmer's dog bark at a beggar?

GLOUCESTER.—Aye, sir.

LEAR.—And the creature run from the cur? There thou might'st behold the great image of authority: A dog's obeyed in office!—*Shakespeare.*

THERE are dogs that may be so called who have less than four legs. If you ever have occasion, good reader, to pay a visit to the office of a London lawyer you will understand my meaning. May that visit be only to inquire about a heavy legacy; and even then, under those fair circumstances, you will get an alarm—almost a bite, from an official dog. In your innocence you will examine the names on the drab-painted doors on the staircase, you will read "private" and pass on; read "clerks," and feel, I hope not haughtily, that your visit is not for them. You will read "Messrs. Grubb & Soap," and knock with a smile, remembering that legacy, and expect to hear a cheery "Come in," such as you hear at the office door of your country legal friend when you make a like tapping. You will image the kind face of the lawyer inside, and his warm grasp and congratulation upon that heavy legacy, and be prepared to pardon his "Well, my dear sir, I must say that I begged my late excellent client to remember his distant relatives;" when lo! to your great surprise there will spring out on you on that dingy oak landing the official dog—the office boy—a horribly precocious youth of fourteen winters, with lank greasy hair, bulging forehead, white face, and black body and legs. He will keep you as effectually from entering that door as the Bull-terrier near your own back kitchen door keeps the wandering beggar. He will make you confess to name and business, and perhaps allow you to come again "to-morrow at 10.30 sharp." That is the official dog who really ought to be muzzled. Will he be Attorney-General another day, and be down fiercely upon future Claimants? or will he be a partner of that firm to whom he is now the office dog? or will he in fifteen years be like that quiet, business-like, writing clerk within, who has a small house at Camberwell, and a small wife and three small children, for whom he lovingly works, and whose company makes him happy? Well, I know not, and I cannot read the fates; but what that sharp-eyed, sharp-featured, sharp-voiced lad is now is—the official dog; and "the dog's obeyed in office."

Next to speak of four-footed official dogs. We are told upon the highest authority that the dog when wild does not bark at all, and that gradually he, when domesticated, learns to bark. See we not here the wisdom of the great Creator, Who adapts the horse for man's service, and adapts also the domesticated dog for his use? The great usefulness of the dog to man lies in his bark: as an official dog herein lies his benefit to man. Not once in many thousand times is the dog wanted to bite. When, indeed, the midnight thief actually breaks in, when the blackened-faced and disguised burglar is actually inside our home, then we want the good, and powerful, and plucky house dog to be at the throat of one burglar while we send the bullets of the revolver into the others. At all other times the bark is enough, and the resolute look which a good house dog shows to the tramping vagabond to assure him that not only he can, but that he *will* bite.

Now, although I do not in the least agree with what Mr. Darwin would have me believe in his noted or rather notorious book on the Origin of Species—viz., that men came from monkeys, I do not believe with Mr. Darwin that—

"Man was an ape in the days that were early;
Centuries after, his hair it grew curly;
Centuries more gave a thumb to his wrist,
Then he became a man and a positivist."

I do not believe this, because I know Who says that "He made man in His own image," not in the image of a monkey. Yet Mr. Darwin is a very close observer of the habits of animals, and has recorded his observations in clear ringing English. Upon the subject of dogs barking says this close observer, "With the domesticated dog we have the bark of eagerness, as in the chase; that of anger; the yelping or howling bark of despair, as when shut up; that of joy, as when starting for a walk with his master; and a very distinct one of demand or supplication, as when wishing for a door or window to be opened." These observations are correct enough, but I think Mr. Darwin has omitted one very frequent bark of a dog which for the sake of plainness of expression I call "the bark of funk"—of sheer fear, often ludicrous fear. The dog, one of a timid variety, or a young dog, is frightened at something. I have known a bit of rag blown by the wind frighten a dog, and the creature will bark and back, back and bark, with his tail between his legs, though not always this; and his bark is simply "the bark of funk," shown by his going backwards while barking. I am inclined to think that this is a frequent cause of a dog's barking, as in the little timid lap dog, notably a Flenheim Spaniel. But dogs in

which there is the least cross of Bulldog blood in them never bark in this cowardly way save when young. Thus, in well-bred Fox-terriers there is a slight touch of bull blood, or pluck there would be none; and these dogs after puppyhood (all children are at times timid), are never guilty of the bark of funk, but every mongrel is, and especially small pet dogs, who back and bark instead of standing their ground and barking, or, better still, advancing upon the enemy while barking.

Poets, save Shakespeare, are rarely accurate in their observations on natural history. Thus, for instance, Lord Byron speaks of, I quote from memory—

"Tis sweet to hear the watch dog's honest bark
Bay deep-mouthed welcome as we draw near home."

Now, a dog when he recognises his master does not bark at all, but gives forth a whine of affection. When a dog barks at a sound of one coming, but finds it is his master, he changes his bark at once to a whine; and as to baying, that is the sound given forth by a dog when pursuing game; and one has heard of a dog baying at the moon, but he never bays at his master.

But to return to official dogs. A good dog seems always proud to be a protector: he is up at any suspicious noise, gives forth his bold bark, and seems to take for his motto, "Ready, aye! ready." A lone house should always have its canine protector, a dog on whose head a solitary servant can lay her hand and say to the threatening tramp, "Now you be off, or I will let this dog loose, and at you," and verily that dog will be obeyed in office. Such a dog is also a meet companion for children when out walking in the country without an elder. I think it is a great point to place a dog in office. Let him feel that he is in an official position, and he will act up to the full the duties of that office.

If you want to see a dog who thoroughly knows his official duties, go to the first carrier's cart that you see on a market-day standing in the inn-yard. That cart contains many things of value, at least to their possessors. This parcel for a farmer's wife, that handbox for the farmer's wife's maid servant, who is longing for its contents—a smart bonnet, with which she will be armed for conquest on the next Sunday! That parcel of books for the village curate; that hamper of goods for the village shopkeeper, &c. Now, the carrier is busy in the town, and leaves his cart and all in it, and leaves it all with a feeling of full security. Why? Because on his great coat, that old weather-stained garment, he has left his dog lying, usually a coarsely-bred Bull-terrier. Coarsely-bred he may be, but more like the dogs of Bewick's day, with some hair on him to keep himself warm and healthy. Not the shivering Bull-terrier of the show-bench, or of Birmingham streets, but a much more useful animal, although the judge would despise him. Bless me! why, the homely and useful are generally despised in this stuck-up age. There, in the carrier's cart, I say, lies the official dog, blinking, winking, now and then almost dozing; but let the light-fingered thief creep near on ever such light footsteps, and he will be wide awake and ready for his throat. I respect those carriers' dogs; bridle-patched, red-eyed, common-looking they may be, but they are as much dogs of utility as the high-bred, silky-coated Setter. Then, has not worthy Dr. John Brown immortalised one such, that glorious old "Rab," of whose "Friends" too, the good doctor has also written so feelingly as make every reader of his little book shed more than one tear? I may notice also, that although I have seen many a dog in office, I have never seen him act the part of "a Jack-in-office;" that part he leaves to weak men. He fulfils his duties, but does not inflate himself; he leaves that to

"Man, proud man,
Dress'd in a little brief authority."

The more sensible dog leaves that part

"For every pelting, petty officer."

He, because not condescending to be a Jack-in-office, is always obeyed in office.—WILTSHIRE RECTOR.

(To be continued.)

WHITE MICE.

THESE smallest of four-footed pets seem to have been totally neglected by writers on the subject of animals kept for amusement; yet, I venture to say, there is hardly a person who has not during some period of his boyhood had a few of them. Boarding-schools are rarely without some of them, kept by the students; indeed, this is such a noticeable fact, that Dickens, in his story of David Copperfield, mentions the school at which young David spent his early youth as celebrated because of this. Nor is there a pet possessing more elegant proportions, displaying more agility, or wearing a handsomer coat than this same little white mouse. Their gracefully-shaped limbs and body, and the beautiful shade of pink colouring in their eyes and ears, are surpassed by no animal kept as a pet. They are intelligent, and recognise the step of their feeder, setting up loud squeaks at his approach. With very little trouble they can be taught

innumerable tricks and antics. I heard of one being kept in a cage with a Canary, and the two remained on very excellent terms, eating and drinking from the same dishes, at the same time, without ever quarrelling. When I was nine or ten years of age, I remember quite distinctly of a white mouse that escaped from its cage, and for a long time would, every night, scamper up and down my mother's bed after she had retired, keeping her awake a good part of the night. Many efforts were made to effect its capture, but all were vain, till one night it was discovered behind a trunk. Crack, crack, crack went its poor little bones, as the trunk was pushed back against the wall, and unfortunate mousey, now a shapeless mass, was thrown into the street to make a dainty meal for some homeless pussy.

Generally the first pets kept by children, they are soon neglected for the more highly-prized Rabbit and Pigeon. Their great deterrent to popularity is their "mousey smell." Of course they smell "mousey." It is their natural odour, which no degree of domestication will ever remove. A recipe to subdue this objection I now give: Take an empty tin baking-soda box, pierce it with holes by means of an awl, and fill it two-thirds full of chloride of lime or carbolic disinfective powder; nail the box to the upper part of the cage, and I will warrant no bad odour will ever be perceived as long as this remains in their cage. This same recipe will effectually neutralise the bad odour emitted by any animal.

White mice are very prolific, producing from four to twenty young at a birth, and having litters monthly.

A good cage for them may be made out of an empty starch box, fitted with a second storey, connected with the first by means of stairs. I once saw one made entirely of tin, and a very beautiful cage it was, with its little tin apartments tenanted by mice of all ages, from the hairless babe to the grey-coated grandfather.

The best food on which to feed white mice is wheat flour and cracker dust, given alternately, with oatmeal once or twice a-week. Occasionally give a crust of stale bread, oats, canary seed, &c. Raw meat fed to them just before littering will satiate their appetite for fresh flesh, and often prevent them from devouring their young. Milk is in every way preferable to water as a drink, and should be given altogether or as often as possible.

As soon as a female shows unmistakable signs of being with young, she should be immediately removed from the common cage and placed in a small box by herself. Leave her and the young in quiet for three weeks, and then replace them in the common cage. If one exhibits cannibalistic habits, and devours the young, give her an ounce of oak wood administered on the back of the head.

A very beautiful variety of mice are produced from the union of the brown and white mouse. The manner in which to effect this is to allow a female her liberty in a place infested by common mice. After running at liberty for a few nights, confine her in a box separated from the rest, and await the issue. This plan generally proves successful at the first trial; indeed I have never known it to fail, though sometimes the progeny, instead of being "pied," are brown, and in every way resemble the common mouse. Be sure and clean their cage once a-day.—(*American Fanciers' Journal*.)

NADIRING.

Nothing is more astonishing than the confusion which seems to prevail in the minds of our bee-authorities on the subject of nadirs. Mr. Pettigrew only recognises the nadir which is made the stock hive. Mr. Pagden in his little book only recognises the nadir put under the stock hive, just as the super is put above it. "B. & W.," if my memory serves me right, recommends coaxing the bees into a nadir and then making a super of it. Mr. Payne in your useful manual, and Mr. Pettitt in his "Management of Bees," do not recognise any kind of nadir; nor does Mr. Filleul in his "Profitable Bee-keeping," a book dear to cottagers, of which I hope we shall soon see a new edition. The only writer I know of who draws a clear distinction between the two kinds of nadirs is Mr. Taylor in his "Bee-keeper's Manual." Speaking of the nadir put under the stock hive he says, "This mode of applying the nadir, or rather nether principle, must not be confounded with the usual plan of disturbing the stock hive for the purpose of placing an empty one beneath it, with a new entrance in the latter for the bees. Under such circumstances the queen will commonly descend and breed in the nadir, which is converted into the stock, occasioning much subsequent inconvenience."

I must leave your more learned correspondents to discuss the relative advantages of the two kinds of nadirs. My own humble experience leads me to think with Mr. Pettigrew that the kind which Taylor condemns offers many advantages in good years, whilst I have also found the other kind (the nether, as he calls it), answer fairly well. The greatest objection to the latter is the difficulty the bees have in finding their way out. Mr. Taylor wisely recommends "a small aperture at the bottom or side of

the nether as a mode of exit for the prisoners, to be closed at pleasure."—E. H. R.

THE HONEY HARVEST.

For several years, including last, I have taken an average of about 25 lbs. from each hive. This spring I started with three hives all in first-rate condition, with a great number of bees in full activity, but the cold weather in May appeared to paralyse all their energies, and they have done nothing during the summer. There are plenty of bees, but they appear as if they had no spirit in them, and I do not think that the three hives will give me a pound of honey between them. It is just the same with one of my neighbours, though another not far off has taken three small glasses. I observe that her bees have a touch of the Ligurian in them. I do not know whether that can explain the difference.—H.

I HAVE been a bee-keeper for fifty years, and never have witnessed such an occurrence, I may say phenomenon, as the following. I had a swarm from a hexagon hive on the 2nd of this month, and in a fortnight from that date they had filled the stock or parent hive weighing 22 lbs., and a super weighing 7½ lbs., with honey of the most delicate colour I think I ever saw, and from that I conclude it has been a most productive season, but now at an end, in the way of honey-getting.—T. GARDY, *Nelson Place, Kew Bridge*.

My present stock consists of ten 16-inch, five 18-inch hives, one 20-inch Pettigrew straw hive, and one fancy hive made of wood and glass. Four of these I had not the opportunity of weighing on the 20th inst—viz., my 20-inch hive, it being about three miles from home in the midst of abundance of white clover, two of my best 16-inch hives working beautiful glass supers, and my fancy hive.

The past fortnight has been very favourable for honey-gathering in this district, it being dry and warm, and had there been a few slight showers to have given a little moisture, we should very likely have been astonished at the gatherings of our little favourites. As it is, I have great pleasure in sending you an account of work done during the last seventeen days by thirteen of my stocks, being an average gain of nearly 26½ lbs. per hive during that time.

	Size.	1874.	July 3rd.	July 20th.	Gain.
Old stock.	16-inch.	Not swarmed.	lbs. 21	lbs. 42	lbs. 21
"	"	"	9	21	12
"	"	Swarmed.	15	31	16
"	18-inch.	"	18	33	15
"	"	"	29	59	30
"	"	"	22	55	33
"	"	"	15	43	28
"	16-inch.	"	14	48	34
Swarm.	16-inch.	June 3rd.	16	59	43
"	"	June 6th.	13	45	32
"	"	"	19	49	30
"	18-inch.	June 20th.	12	34	22
"	16-inch.	June 20th.	7	42	35
			191	534	343

The above are nett weights—that is, the weight of hive and floor-board deducted.—THOS. BAGSHAW, *Longnor, near Burton*.

BEE PHENOMENON.

IN THE JOURNAL OF HORTICULTURE of July 16th you inserted a paragraph from me under the above heading. The two queens were first seen on the 28th of June, and since then I have frequently visited the hive. On the first occasion the queens were on adjacent bars; on another visit, I found them on opposite sides of the same bar, and Mr. Boulton's opinion was, that should the contiguity continue, and the queens meet, the destruction of one or the other would result. This morning (July 17), however, we found them working together on the same side of the bar within 2 inches of each other, both they and the bees in the greatest possible harmony.—J. R. R., *Ulverston*.

IS THIS A HONEY YEAR?

WE bee-keepers in the Yorkshire dales have had favourable weather for our busy subjects. There has been a fair amount of dews and rain. Perhaps the balance may, however, lean a little in the favour of dryness, but on the whole we have been highly favoured, and the heather is already in bud and will soon be out; it is early this year. To give one instance of the weather we have had: On Sunday evening, June 28th, our bees were working at 8 P.M., as at midday; the air was warm with a good deal of moisture. "B. & W." also speaks of his stocks being in

a miserable condition at the close of the winter. Our stocks and the stocks of those who manage their apiaries on the best principles, were very healthy and strong at the close of the winter, whilst our neighbours, who give neither thought nor care to their bees, lost many of their hives; and although I think they deserved to lose them, I do not infer that "B. & W." lost his hives from neglect. It was a great pity that such fine supers as he speaks of should have been sacrificed for feeding purposes. I think sugar-syrup would have been better, and also much cheaper. If "B. & W." would try sugar-syrup next time he feeds he will see the advantage it has over honey-feeding, more especially over good super honey.—W. C.

HONEYDEW.

Your able correspondent, "B. & W.," is fond of breaking a lance with Mr. Pettigrew, but he cannot surely intend doing so on behalf of honeydew; and yet, to the astonishment, I doubt not, of many of your readers, he speaks of "extensive honeydews" as among the blessings which have been denied him this summer. I have long come to Mr. Pettigrew's conclusion, that the blight called honeydew is "a great nuisance to bee-keepers," and that "it is a great pity that bees touch it at all." To this I may add that I have observed it to have an exciting and almost intoxicating effect upon bees, making them extremely quarrelsome.—E. H. R.

HOW TO MAKE A BEE HIVE.

TAKE inch plank, let it be smooth, 28 by 18 inches square, for the bottom; saw out of the centre a piece 6 inches square; cover this with wire cloth. Make a slide for the under side, so as to give ventilation according to the weather. Let the side pieces be the same length, 12 inches wide, and set these on the bottom. Nail from the under side, letting one be 1 inch from the edge. This is for the bees to have a place to light on. Make an entrance under this for the bees to go in. Take strips, 2 inches wide, and nail on the outside at top on the side board, extending above 1 inch. Hang the frames inside of this on the top of the side board. For frames, take strips three-quarter by 1½ wide, 10 inches long; for the end pieces, for bottom and top, 1 inch wide; bottom piece 15 inches long; top piece 2 inches longer, extending 1 inch over each end piece, when nailed together. Nail through the top into the end and through the end into the bottom piece. For a guide, take a triangular piece, tack it on the under side of the top piece. Cut out end boards 12½ inches wide, and hang on just like the frames.

Next is a covering for the top; put this on with hinges on the front side, and fasten on the other with a latch, or a weight on the top will do. When complete, the frames should be a quarter of an inch smaller than the hive inside, giving room for the bees to pass around. When you wish to open this hive, unfasten the latch, raise the lid, slip off the end boards, and all is open to inspection.

To put a swarm in this hive raise the lid, put one end board in place, then seven frames, and then the other end board. Put a board or cloth on the top of the frame, raise up one end board 3 inches, empty the bees close to this opening as you can. When they all go in, let down the end board, take the board or cloth off of the frames, let down the lid, and you have them. As they fill up, put in more frames. You can make frames larger or smaller, according to your fancy. The principle is the same as Mr. B. M. Quinby's, but the hive differently constructed.—R. H. PITTLE.—(Prairie Farmer.)

OUR LETTER BOX.

RABBITS (E. Emlyn White).—Your Rabbits are suffering from too much watery food, or it may be from damp hutchies. Give more solid and less watery food, and season it with salt. Employ condiments composed of leaves of heather, juniper, sage, wormwood, thyme, and green parsley, dried and powdered. If the hutchies are damp they must be made drier.

LEEDS ORNITHOLOGICAL SOCIETY.—"I was also an exhibitor at Leeds, where I showed a pair of Pouters, which were old, but I have not received any money for them, though I have made several applications for it.—H. W. WARR, *Syl. plum.*"

MOVING BEES TO THE HEATHER (J. W. F. Gerald).—We are pleased to hear you succeeded so well in driving the bees from your hive on the twenty-fifth day after warning, and that you made 120 lbs. of honey. If you remove the bees to the heather they will, weather permitting, gather stores enough for the winter. Our bees are about two miles from a set of heather, but they do not go to it. If you want honey in quantity we advise you to remove the bees to the heath at the end of July; if you merely wish to have good stock hives they may remain at home, and flies that are not heavy enough for winter should be fed in September.

BEES CLUSTERING OUTSIDE HIVES (Lia Old. *Syl. plum.*).—We consider it at all bees cluster outside a hive and in large numbers before the month of July, is not good for either the bee-master or the bees; and where this clustering is permitted to go on for weeks a great loss is sustained. The Sommer system of artificial swarming is so simple and so easily carried out, that mere novices succeed whenever they make an attempt. For bees

should have been swarmed artificially three weeks ago. It is now too late for swarming; we therefore advise you either to cke the hives, and thus give the bees room and a stimulus for work, or drive all the bees into empty hives and take the honey from the old ones. A few pounds of sugar given to the swarms or turnouts will enable them to fill their hives nearly full of combs, and these combs with brood. The old hives are probably so full of honey that there is little brood comh in them. We have known bees hang outside their hive till almost every cell of every comb was filled with sealed honey. Why they sometimes do this no one can tell. The sooner your bees get new houses, or additions to their present ones, the better. When smoke is used it is blown in at the doors of hives.

BEES NOT FILLING LARGE HIVES (E. F. W.).—The season must improve greatly to enable your bees to fill the large hives with comh this year, when so late as the 18th of July they had not half-filled them. Should they not store a sufficient quantity of honey you will have to feed them; but if well fed before winter, we do not think you need fear their dying of cold.

METEOROLOGICAL OBSERVATIONS, CAMDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W.; Altitude 111 feet.

DATE.	9 A.M.				IN THE DAY.						Rain.	
	Baromet. at Sea and Level.	Hygromet- er.		Direction of Wind.	Temp. of Sun at 1 foot.	Shade Tem- perature.		Radiation Temperature		In- sun.		On grass
		Dry.	Wet.			Max.	Min.	deg.	deg.			
1874.	Inches.	deg.	deg.		deg.	deg.	deg.	deg.	deg.	In.		
July.												
We. 22	29.927	61.0	57.4	S.W.	67.0	53.8	52.8	129.6	51.1	—		
Th. 23	29.943	60.3	58.1	W.	65.8	76.3	57.0	125.3	55.5	0.082		
Fri. 24	29.890	60.1	58.5	S.W.	61.1	75.5	60.0	116.2	49.5	0.010		
Sat. 25	29.926	61.9	57.7	W.	62.8	78.5	47.3	126.0	46.7	0.041		
Sun. 26	29.721	58.8	58.2	S.	63.9	75.7	56.1	124.2	33.6	—		
Mo. 27	29.751	61.4	57.8	S.	64.1	70.8	56.2	112.8	51.2	0.215		
Tu. 28	29.632	62.2	60.0	S.	62.7	66.1	53.8	84.9	5.9	0.055		
Means	29.891	62.9	58.3		64.3	73.6	53.3	114.4	51.8	0.402		

REMARKS.

- 22nd.—Fine morning; the day rather dull, and much cooler than it was a day or two since.
23rd.—A very pleasant day, though there were two sharp short showers, one in the forenoon, the other about 5 P.M.; fine evening.
24th.—Fine morning; thunder between 1 and 2 P.M., and several times in the afternoon at a distance; occasional showers; fine evening.
25th.—Rather cloudy all day, but cool and pleasant.
26th.—Rain early, but fine before 11 A.M., and continuing so all day, though not very bright; stormlike between 8 and 9 P.M.
27th.—Dull morning, occasional showers, but by no means a wet day; sun at times very bright.
28th.—Very wet morning; thunder at 9.30 A.M., and frequent heavy showers all the forenoon; afternoon very bright and fine.

Frequent showers, falling heavily and suddenly like thunder showers, though there was but little thunder heard here, and nothing either of that or rain to be called a storm. The cloudy sky and frequent showers have lowered the temperature very considerably, the maximum of the week being only 75.5.—G. J. SYMONS.

COVENT GARDEN MARKET.—JULY 29.

A good business is current, and fair prices generally are obtained. Large importations continue, and comprise Apricots, Green Gages, Peaches, and Nectarines, with Grapes from the Channel Islands. West Indian Pines are plentiful, at prices ranging from 1s. 6d. to 2s. 6d. each.

FRUIT.

	s. d.	s. d.		s. d.	s. d.				
Apples.....	1	0	6	Mulberries.....	3	0	0	0	
Apricots.....	doz.	2	0	6	Nectarines.....	doz.	6	0	0
Cherries.....	lb.	0	6	1	Oranges.....	3	0	0	0
Chestnuts.....	bushel	0	0	0	Peaches.....	doz.	6	6	0
Currants.....	sieve	4	0	0	Pears, kitchen.....	doz.	0	0	0
Black.....	do.	5	0	0	Pears, dessert.....	doz.	2	0	0
Figs.....	doz.	3	0	8	Pine Apples.....	lb.	2	0	0
Filberts.....	lb.	1	0	1	Plums.....	sieve	3	0	0
Cobs.....	lb.	1	0	6	Quinces.....	doz.	0	0	0
Gooseberries.....	quart	0	6	0	Raspberries.....	lb.	0	6	0
Grapes, Calthouse.....	lb.	1	6	0	Strawberries.....	3	0	0	0
Lemons.....	3	0	10	0	Walnuts.....	bushel	10	0	0
Melons.....	each	4	0	8	ditto.....	3	0	0	0

VEGETABLES.

		s. d.	s. d.			s. d.	s. d.			
Artichokes.....	doz.	3	0	0	Lettuce.....	doz.	1	0	2	0
Asparagus.....	100	4	0	8	Mushrooms.....	petite	2	0	3	0
French.....		0	0	0	Mustard & Cress.....	packet	0	2	0	0
Beans, Kidney.....	3 sieve	3	0	4	Onions.....	bushel	4	0	7	0
Broad.....	bushel	1	0	0	Packing.....	quart	0	6	0	0
Beet, Red.....	doz	1	0	3	Parsley per doz. bunches	2	0	4	0	0
Broccoli.....	bundle	0	2	1	Parsnips.....	doz.	0	2	1	0
Cabbage.....	doz.	2	0	3	Peas.....	quart	1	0	1	0
Cappasiums.....	100	0	0	0	Potatoes.....	bushel	3	6	0	0
Carrots.....	bushel	6	0	1	Radishes.....	do.	4	0	8	0
Cauliflower.....	doz.	3	0	6	New.....	3 lb.	0	0	0	0
Celery.....	bundle	1	5	2	Raspberries.....	doz. bunches	1	0	1	0
Coleworts.....	doz. bunches	0	1	0	Rhubarb.....	bundle	0	2	1	0
Cucumbers.....	each	6	0	1	Salsify.....	bundle	1	0	0	0
Packing.....	doz	0	0	0	Scallions.....	bundle	1	0	0	0
Endive.....	doz.	2	0	0	Scorokale.....	bushel	0	3	0	0
Fennel.....	bunch	0	3	0	Shadots.....	lb.	0	3	0	0
Garlic.....	lb.	0	6	0	Spinach.....	bushel	2	0	8	0
Herbs.....	bunch	0	3	0	Tomatoes.....	doz.	1	0	3	0
Horseradish.....	bundle	3	0	4	Turnips.....	bushel	0	3	0	0
Leeks.....	bunch	0	3	0	Vegetable Marrows.....	doz.	2	0	3	0

WEEKLY CALENDAR.

Day of Month	Day of Week	AUGUST 6—12, 1874.	Average Temperature near London.		Rain in 43 years.	Sun Rises		Sun Sets.		Moon Rises.		Moon Sets.		Days.		Days.
			Day.	Night.	Mean.	m.	h.	m.	h.	m.	h.	m.	h.	Days.	h.	
6	TH	DIE OF EDINBURGH BORN, 1814.	73.2	50.8	62.0	21	33	47	7	19	11	23	3	24	5	238
7	F		74.6	50.9	62.7	18	34	4	37	7	50	11	48	4	5	279
8	S		74.5	49.4	61.9	18	36	4	35	7	noon	55	5	26	5	229
9	SUN	10 SUNDAY AFTER TRINITY.	74.9	49.6	62.2	16	38	4	33	7	46	0	46	6	5	211
10	M	Anniversary Meeting of Royal Botanic Society, 1 P.M.	75.1	51.9	63.5	19	39	4	31	7	51	1	23	7	5	222
11	Tu		75.8	50.7	63.2	20	41	4	29	7	11	3	48	7	4	223
12	W		75.1	50.5	62.8	16	42	4	27	7	33	4	6	8	4	224

From observations taken near London during forty-three years, the average day temperature of the week is 74.7°; and its night temperature 50.5°. The greatest heat was 94°, on the 10th, 1842; and the lowest cold 33°, on the 11th, 1851. The greatest fall of rain was 1.11 inch.

STAG'S-HORN FERNS.



THE Ferns popularly known by the above name belong to the genus *Platyceerium* (literally Broad Horn); they form a very natural group of plants, and were originally united with *Aerostichum*; but to my mind they have nothing in common with the species which represents that genus in our ferneries.

Platyceeriums are characterised by their large sterile fronds, which are entirely different in shape from the fertile ones; they are sessile, and grow erect and flat, overlapping each other as they increase in numbers and in size. The fertile fronds are stalked, standing out erect or horizontally from the barren fronds (or shields, as they are not inaptly called in a popular way); they rise from the little depression at the base of the sterile fronds, and are many times dichotomously forked, having more or less broad and obtuse segments, which are thick and leathery in texture, and clothed with a dense covering of peculiar stellate scales, which give the young fronds the appearance of having been dusted over with a white powder; the veins are somewhat indistinct, but are coarsely anastomosed; whilst the receptacle is irregular, but usually occupies the greater portion of the apices of the under side of the segments.

Platyceeriums grow naturally upon the trunks and branches of forest trees, and are most successfully grown under cultivation when treated as epiphytes, and placed upon blocks of wood or in baskets. I have grown them in pots; but I do not recommend that system, because the peculiar habit and beauty of the plants cannot be developed under such treatment, not even in cases where pots are made specially for them.

In providing blocks of wood for these plants the operator must not go to work with a narrow mind; for although the plant may not now have shields or barren fronds more than a few inches in diameter, it will, if properly treated, soon produce others, which may probably attain some 12 inches or more in breadth, and if a block sufficiently large is not provided, the shields will clasp round it instead of being kept spread open as they would be if upon a broad block, and thus in the case of the small block half the beauty of the plant is lost. This is a point too often overlooked by Fern amateurs, and therefore I would specially draw their attention to it.

Having selected a block of wood of sufficient dimensions, first fasten the plant upon the block with some fine copper wire, and then take some living sphagnum moss and rough peat from which all the fine earthy particles have been beaten out, and pack down behind the barren fronds so as to make the plant quite firm; give it a good soaking in a tub or pan of water, and nothing more remains to be done but hang it up in the desired position, and keep it abundantly supplied with water from the syringe. Care must be taken to prevent a lodgement of either thrips or scale, for if either be suffered to gain a footing they will speedily turn the fronds from

their lovely green colour to a nasty, dirty, rusty brown, which will present quite the reverse of the effect desired; therefore examine them occasionally, and promptly remove any of these pests should they put in an appearance. I do not recommend the sponging of the fronds if possible to avoid it, as by this means the covering of stellate scales is removed, and thus, to my mind, the plant becomes disfigured.

There are but few species of *Platyceeriums* known to science, and nearly all of them have been introduced to cultivation; but doubtless we have more species or varieties yet to receive which will lend an additional charm to our ferneries. This much can be said of those we have, that they are all so entirely distinct that a block or bracket may be found for each in even a small Fern house, without producing a sameness or monotonous appearance; whilst their habit is so peculiar and extraordinary that no Fern house should be without them.

P. ALICORNE.—Some idea may be formed of this species by the accompanying illustration (*fig. 36*, page 114). I before mentioned baskets as being suitable for the growth of *Platyceeriums*, but this is the only one to which that style of culture is applicable. The shields or barren fronds are small, and as it throws up innumerable young plants from its roots, in the course of a few years it forms a large globular mass, producing fertile fronds from all parts of its surface. It is not the most beautiful of the genus, but is specially deserving the attention of those having only a greenhouse fernery, as it succeeds admirably under cool treatment; moreover, in a young state, and for several years, it may be grown with advantage by those who have only a Fern case to indulge their tastes. In such a position the half of a cocoa-nut shell forms a capital basket, and when suspended from the roof of the Fern case does not present an unsightly appearance. This species is widely distributed through the islands of the Indian Archipelago, and is also common in Australia.

P. ALICORNE MAJUS.—As its name implies, this is a large form of the original type, and as such it is well deserving the attention of Fern-growers. Although it may be grown in a basket, the large size of its barren shields and the more forked character of its fertile fronds induce me to give preference to a large block of wood. It has been introduced from Australia.

P. INFORME.—This species is a native of Burmah and various localities in the Indian Archipelago, and must be treated to stove temperature. The sterile fronds are somewhat broad, whilst the fertile ones are long and pendulous. The sori in this species are not produced near the apex of the segments, but upon a scutiform lobe near the first divisions of the fronds. It is at present a rare, but at the same time it is a most beautiful, species.

P. STEMMARIA, known also in collections by the name of *P. æthiopicum*, is a very distinct plant, but is not such a general favourite, because the barren shields die and turn brown every season. This, however, should not deter or discourage the amateur from finding a place for it in the fernery, as each year's growth completely cloths the old ones. The shields are large, and densely clothed

with stellate scales, which give them a somewhat glaucous aspect. The fertile fronds are broad and short, several times forked, and very leathery in texture. Native of Western Africa.

P. GRANDE.—This truly beautiful species never fails to excite the admiration of all beholders (some idea of its appearance may be obtained from fig. 37, for which we are indebted to the courtesy of Mr. B. S. Williams, of the Victoria Nursery, Upper Holloway). This species must be provided with a large and broad block of wood, or half its beauty is lost. The sterile fronds are erect, the upper edge variously forked, but plain and rounded below. Fertile fronds from 1 to 3 feet in length, coriaceous in texture, dichotomously forked, and light green in colour. Too much cannot be said in praise of this charming plant. It must be grown in the stove fernery. Native of Australia and the Malay Archipelago.

P. WALLICHII.—I have left this species until last, because it is at present so very rare and so very little known in cultivation; it will, however, when it assumes its proper character, become as general a favourite as the preceding, which, indeed, it much resembles, but is larger and altogether more massive. Unfortunately but few plants are as yet to be found in collections. It has been frequently sent to me from Borneo, but hitherto I have not been fortunate enough to receive it in a living state.—**EXPERTO CREDE.**

THE GLADIOLUS.

This year I added to my stock some £12 worth of imported bulbs of the best kinds I had met with, a few seedlings from the Messrs. Kelway, and, thanks to Mr. Banks, also several hundreds of his much-prized seedlings. As last year, I again manured freely with new cow manure, laying it some 10 or 12 inches deep, and commenced planting my bulbs in the open ground in the first week of March, some with sand around the bulbs, and some without; but as my land was light, I thought this trouble was superfluous, and I really now see no difference. Having been early planted of course they came up early, and then, as with horticulturists generally, I had to contend frequently against severe pests. Over the most valuable beds for several weeks I propped-up some old frame lights, and soon after I had reason to see how much better it would have been had this system of protection been extended to the whole. Those protected remained green and healthy-looking, whilst the rest had just as much as they could do to keep themselves erect; in fact, some gave way after the severest nights, and then speedily died-off altogether. But these early frosts also damage the outer shell-like haulm, and then when it from the first continues to decay, a nasty little insect gets in between this outside and the more healthy foliage, and frequently eats its way into the spike from the surface down to the bulb. Mulching the surface with manure too near the plants likewise encourages these pests—so

much so, that I am now beginning to think that it is as well to refrain from mulching altogether.

I have no reason to complain of misses this year among my French bulbs, and unquestionably they are the most level lot I have, though quite two-thirds of both Mr. Banks's and the Messrs. Kelway's are quite their equal in robustness. I have before complained of expensive French bulbs not growing. Those of my own saving have done worse, a feature in growing the *Gladiolus* which I can only ascribe to the fact that, like the Potato, it needs a change of soil. I have not lost one by wireworms, on my still somewhat new soil—the sixth year after being broken up from a very old pasture. I attribute

this good fortune to the free use of nitrate of soda. Some few—say a tenth—have shown signs of disease, but when they turn yellow I now at once pull them up, and then at least they are a source of no further annoyance. With me the disease is still all in the roots, which, after I pull them up, I find to be quite soft; and after pulling them through the fingers they have much the appearance of a mouse's tail minus the skin, or at least the skin of the root leaves the fibrous part much in the same way. I find that it is no matter whether the land is rich or poor, for this disease amongst a portion is all the same; and I am afraid that I must speak of the total cure as a thing of the future.

As a whole my collection of *Gladiolus* never, I think, looked so well; and this day (July 30th), I find that the first six spikes are in bloom, and some hundreds more are throwing up their heads. After expending so much money, the prizes offered for *Gladioli* in this neighbourhood are simply contemptible; and it is more than likely, with one or two excep-

tions, I shall show them only to those who visit my little garden at home. For a sovereign outlay you may cut and come again at Dahlias, but after spending £2 a-dozen for *Gladiolus* bulbs you are fortunate if you can show four blooms on the day you want them; and for effect, what comparison can Dahlias bear to equally well-grown *Gladioli*?

I think I ought to say that though situated by a public foot-way in the midst of a colliery district, and though I have one or two fine young Apple trees which bore well last year, and several berries, my garden gate has never been locked night or day, is free to all, and up to the present I never knew one enter to injure either fruit or flowers. So much for the people of a village in the populous county of Durham.—**JOSEPH WITHERSPOON, Chester-le-Street.**



Fig. 36.—*PLATYCLERIUM ALCHICORNE.*

THE BEDFORD HILL PLANT SALE.—The collection of plants belonging to J. Brand, Esq., of Bedford Hill, Balham, was sold by Mr. J. C. Stevens on July 21st and 22nd. Fine plants of *Phalenopsis Schilleriana* realised from £3 5s. to £10 10s.; *Odontoglossum pulchellum majus*, £10 10s.; *Epidendrum*

vitellinum majus, £5; a fine plant of *Dendrobium nobile cerulescens*, £9; *Aurides Fieldingii*, £5 10s.; *Angræcum sesquipedale* with sixteen pairs of leaves, £18 18s.; a very fine plant of *Anthurium Scherzerianum*, £15 15s.; *Phalenopsis amabilis*, £8 8s.; a very fine plant of *Lapageria rosea*, £7; *Camellia Valtevarado*, 10 feet high, £13 13s.; a pair of *Seafortia elegans*, 10 feet high, £17 6s. 6d.; and *Eucharis amazonica*, in the culture of which Mr. Howard, Mr. Brand's skilful gardener, is eminently successful, brought according to size from £5 for pot plants to £11, £12, and £16 6s. for those in tubs.

NOVELTIES IN THE ROYAL GARDENS, KEW.

IN the Succulent house there are many. *Asparagus con sanguineus* is new and extremely beautiful. The entire plant is very delicate, and light green in colour. The leaves are capillary, and the branches are disposed in a frond-like manner. The value of the common *Asparagus* for mixing with flowers is well known; here is a greenhouse species in condition all the year, and much more suitable from the convenient form of the branches. When covered with bloom it must be very charming; there are now only a few flowers, small and white. It is a climbing species, grows freely, and is cultivated without difficulty. There are three flowers on the *Leuchtenbergia* (before mentioned), one of which will open in a few days, and the others in succession. *Stapelia polita* is new and very choice. The flowers are about the size of a shilling, dark red brown, without marks, and it shines like no other species. The corolla is sharply depressed from the centre, and the teeth curve up; between which, low down, are a few hairs. It is very floriferous; eight flowers are to come on two small branches. A plant of the new *Decalvone elegans* has an advancing bud. A species of Black boy (*Xanthorrhæa quadrangulata*) still retains the spike thrown up some months ago, the first produced in this country. Black-boy gum is used as cement. In Museum No. 2 is a stone hammer composed of two pieces united by its means. From the general appearance no one would suppose it to belong to the Liliaceæ, to which it is usually referred. Le Maout and Decaisne place it in Xerotidæ in company with *Dasyllirion*, *Kingia*, *Aphyllanthes*, &c. The large *Agave* is now in full flower.

A fine specimen of *Mussehia Wollastoni* is flowering in the Cape house. It is a peculiar member of the Campanulaceæ from Madeira. The stem is erect, does not branch, and supports a crown of leaves with a large terminal panicle of yellow flowers. The corolla is curious from its long, linear, recurved segments. After flowering it dies, and must be reproduced from seed. It requires loamy soil, and should be grown on without check. *Juanaltoa parasitica* is a rare plant of the Solanæ, flowering in the stove. It has ornamental flowers; the corolla is tubular, 2 inches long, dark orange, and almost enclosed within a calyx of the same colour. It is a native of Peru. *Tabernaemontana coronaria flore-simplici* is very pretty, with numerous white flowers. For several years it has been sold as *Coffea benghalensis*, from which it may be distinguished by its milky juice and want of stipules. *Rivina flavesens* is worth the attention of those who grow the more common red-berried *R. lavis*. It would be useful as a companion plant,

from the berries being yellow. Among the Orchids in flower, for rarity and beauty combined there is nothing to equal *Saccolabium Cruikshankii*; it has an erect spike of rose-coloured flowers with a white lip. The effect of the two colours is very pleasing. *Lalia xanthina* is an interesting species with yellow flowers. *Polycyrenis lepida* is extremely curious. *Dendrobium Pierardi* is still in beauty; plants have bloomed in succession for the last eight months. It is said not to meet with ready sale. How that can be is surprising; everyone admires it.

Among the numerous plants in flower at the Rockwork are *Androsaco lactea*; is a very pretty species with white flowers. In foliage it somewhat resembles *A. eximia*. The white variety of the British *Malva moschata* is very showy. *Stachys coccinea* is a diminutive species, with slender stems, small leaves, and white flowers. *Polygonum capitatum*, from the north of India, is not quite hardy, but is worth planting on rockwork in summer. It is also useful for baskets in the greenhouse. It has a neat trailing habit. The leaves are ovate or elliptical, and marked with a dark band. The flowers are pink, and produced in round heads.

Argemone hispida is flowering in the Herbaceous ground. It is a new species, discovered in New Mexico, and has large pure white flowers. In habit and foliage it is similar to

A. mexicana. *Impatiens glanduligera* is tall-growing and robust, producing red flowers freely. It sows itself, but does not become a weed. *Psoralea macrostachya* is rarely met with. It has erect stems 5 feet high, pinnately trifoliate leaves, and racemes of purple and green flowers. It is a native of Nootka Sound on the north-west coast of America, and is quite hardy. It is worth a place in all collections. *Pentstemon heterophyllum* is very handsome, with blue flowers, and is very distinct.

Lysimachia clethroides is new to cultivation. It has broad leaves and pretty racemes of pure white flowers. *Sonchus palustris* is almost extinct as a British plant; here are two good clumps in flower. *Scabiosa Parnassa* covers the ground with a dense mass of growth.

The leaves are small and grey, and the flowers pinkish white, produced in great abundance. It deserves extensive cultivation.

Solanum jasminoides is flowering on the walls. There are two forms, one pure white and the other tinged with purple. It is an extremely beautiful hardy climber, in bloom all the summer. A variegated variety is sometimes met with. Propagation is best effected by means of small rooted branches taken from the base of the plant. *Thladiantha dubia* is a rare and very handsome hardy perennial Cucurbit from North China; valuable for covering walls, &c., in summer. It appears to be little known. The leaves are heart-shaped and not divided. Flowers are freely produced. *Fremontia californica* and *Chimonanthus fragrans* are bearing fruit.

VEGETABLE IVORY.—This curious hard material is the store of food laid up by the plant for the nourishment of the embryo, or young plant contained in the seed. It corresponds to the white in the egg of the hen, and has been consequently called the albumen of the seed. In its early condition this ivory exists as a clear, insipid fluid, with which travellers allay their thirst; afterwards, the liquor becomes sweet and milky, and



FIG. 37.—*PLATYCODON GRANDE*.

in this state it is greedily devoured by bears, hogs, and turkeys; it then gradually becomes hard. It is very curious that this hard mass again returns to its former soft state in the process of germination. The young plant for some time is dependent upon it for its food, and if the seed be taken out of the ground after the plant has appeared, it will be found to be filled with a substance half pulp and half milk, on which the plant lives until it is old enough to obtain its food on its own account. From the small size of the seed—the largest not being more than 2 inches across their greatest diameter—the Vegetable Ivory can be employed in the manufacture of only small articles, such as beads, buttons, toys, &c. What is wanting in size is, however, often made up by the skill and ingenuity of the workman, who joins together several pieces so as to make a long object (especially when such articles are made by the turning lathe, when it is easy to hide the joints from view), or make a lid from one seed, and the box from another. In some years, as many as 150 tons of seeds have been imported into England, and they have been sold in the market at the rate of a thousand nuts for 7s. 6d.—(*Cassell's World of Wonders for August*.)

IN AND OUT OF ABERYSTWITH.—No. 2.

Just when sitting down to commence this bulletin I received a letter, of which the first sentence is, "I hope you like the place;" to which and to your readers the reply is—Certainly I do, for the inscription to be read at another Welsh town is quite as applicable to this—

"Vinum bonum, pisces, carnes,
Chickens, chaises, horses, harness,"

are all cheap, and everything else in proportion, from Beans up to Bath chairs. The hens here lay fresh eggs at a penny each, which they do not in London, and their young roastable progeny are only 3s. 6d. per couple. Then, again, the rain, which is said to amount to 60 inches annually, falls as travellers like it to fall, unless they are out in it with their umbrellas at home—namely, it pours and soon finishes; verily, I have seen two showers which seemed to be at the rate of an inch in the hour. I will conclude the aquatic aspect of my subject at once.

The water is of the softest, and the supply from reservoirs in the mountains abundant. Its softness indicates its purity; its softness is six times superior to that supplied to London, and seven times superior to that supplied to Bristol. Its purity is superior to that of most spring waters, for Mr. Herepath found in a gallon of it only three grains and an eighth of a grain of salts. The same purity characterises all the streams of the mountains, and they are many. Plynlimon is the birthplace of five springs which become noted rivers, and pertaining to them is this specimen of the Cambrian legends. There were five mountain nymphs, sisters, born at Plynlimon, and they agreed one summer evening to pay their father, old Ocean, a visit, but each was to pursue a different path. Vaga (the Wye) was most prompt in leaving, and she wandered down a beautiful southern valley. Labrina (the Severn) starting rather later took a northern yet beautiful course. Rheidol, commencing her journey, later corrected her delay by rushing directly westward to her father at Aberystwith, where her sisters Llyfrant and Dulas had to follow.

Being thus led to the sea I will add a few words about its weeds. All the British Fauna are found here, but I will only note that among them are the finest specimens of the crimson *Ocellseria* that can be collected. The Laver, *Plocamium*, once so urged upon consumptive patients, is also found here. In addition to what was stated in a previous communication relative to the uses of seaweeds, let it be added that some are sent to London in large trusses for packing purposes, and that in America they are converted into artificial clay. The process consists in first treating the plants for two hours with dilute sulphuric acid, then drying and grinding them up. To sixty parts of this product, five parts of liquid glue, five parts of gutta percha, and two and a half parts of indiarubber are to be added, the latter two being first dissolved in naphtha; afterwards ten parts of coal tar, five parts of pulverised sulphur, and five parts of pulverised resin are added, and the whole heated to about 300° Fahr. When cooled, a mass is obtained which in colour, hardness, and capacity for receiving a polish, resembles ebony, and is much cheaper. This material is now made on a large scale, and used for nearly all the purposes to which ebony can be applied.

Not many of your readers will resort to that process, but

many of them will be glad to know how best to store seaweeds in the herbarium; so I copy, with some additions, the following furnished by an adept to that excellent local authority, Morgan's "Guide to Aberystwith and its neighbourhood":—"Gather the seaweeds either that are growing in the pools left by the tide or that it recently has thrown on the beach. The best time for collecting seaweeds is during very low tides, and they should be carried in an oilskin-lined basket. Many of the delicate *Floridæ* and *Ceramie* require great care, and must be laid out as soon as possible, first ascertaining by the aid of a magnifier whether the plant is in fruit, and if so whether it is capsular or granular. Before laying down specimens wash them in fresh water, cut a piece of paper to the desired size, place it in a dish containing fresh water, and spread out the plant by the aid of a good-sized camel-hair pencil—never use a pin for this purpose, for it destroys the natural fall of the branches. Gently raise the paper, holding it slantingly until the superabundant water has run off, and then place the paper in the press. This is made of two pieces of board or paste-board. On the first board place two sheets of blotting paper, on that place the paper with the specimen, on that put smoothly a piece of muslin or linen, then two sheets more blotting paper, and on that another board. The blotting paper and muslin should be carefully removed and dried daily, and then replaced. When sufficiently dried gum the specimen on a page of a scrapbook, or fix the sheet of paper on the page as drawings are fixed, by making four slits, into which one of each corner of the page of paper may be inserted. This mode is preferable, because it admits of the easy removal and rearrangement of the specimens. The name, locality, and date, are best appended in pencil for a similar reason."

On no coast have I seen such an abundance of seaweeds cast up by the waves, as well as growing upon the slaty bolds that of all forms and sizes girdle the shore. There those weeds remain and grow and decay unused. No farmer avails himself of this natural costless mine of fertility. His excuse may be that there are no roads to approach the shore readily, and that is true, but if farmers duly estimated the manurial value of seaweeds they would soon construct roads. The weeds are not neglected because they are not needed, for the soil near the coast is miserably poor, and the few corn crops grown are wretchedly thin, and tell of the soil's poverty.—G.

THE FRUIT SEASON IN QUEENSLAND.

At the close of the fruit season it would be both interesting and profitable for orchardists and cultivators in different districts to record their experience for the public benefit; and as the variety of the different fruits imported into, and now bearing, in Southern Queensland is so great, there is abundant choice for planters in all parts to select from.

In this neighbourhood (Milton, near Brisbane) the *Peach* crop was not so good as in former years. The spell of dry weather in spring, suddenly succeeded by abundant rain, rendered them in most cases a partial failure. Mowbray's China, however, maintained its character, as did also two other seedlings of the Flat China—the one a round pale freestone; the other a large, flat, high-coloured clingstone. These seedlings from the Flat China and their progeny open a boundless and very promising field for Peach-growers; they sport so freely, varying in size, shape, colour, quality, and time of ripening, and withal being generally so good, we ought, from this race alone, to obtain first-class sorts to furnish fruit through the entire season. We have several trees now under observation.

Figs have not been successful; the rains have damaged the fruit, and the foliage has suffered from insect depredators. We need some lynx-eyed entomologist to look after these gentry.

Grapes.—The *Oidium* (mildew) has not been nearly so destructive this season. Many European varieties that we had almost lost the taste of, ripened off well, and that with only once sulphuring. Notably we had some splendid bunches of rich, cool, translucent green Grapes from a new European variety called the *Diamant Traube* [Scotch White Cluster]. The new American varieties have done nobly; never damaged by the *Oidium*, and standing the changeable weather better than the European kinds, they are the Grapes for the million. Rogers' hybrids Nos. 1, 2, 4, 9, and 12 are all very good, varying in colour, size, and earliness; Nos. 1 and 2 being the latest of the five. Another of Rogers' hybrids called *Salem* is a fine early Grape, large, round, copper-coloured, and ripening early. Allen's Black Hybrid is also a very good early black Grape,

its only drawback being, in wet weather, a disposition to drop from the bunch somewhat. It is one of the least pulpy of this class of Grapes. Adirondac is first-class here, of fine quality, early, good bunch, beautiful black berries. Isabella is hardy, healthy, early, and an abundant bearer, but so far not so good in quality as Adirondac or Allen. Iona and Delaware have both justified the high character for quality which they have received in America, but the Delaware is too small for us as a table Grape, although reputed to be of surpassing excellence for wine. The Iona does well here grafted on the Isabella—far better than on its own roots. Some were grafted this season with Wagener's patent Vine-grafting machine, and the grafts took famously. Among the later Grapes should be mentioned the Maxatawny, a fine large white fruit of great excellence, but, so far, only a moderate bearer; and Anna, a copper-coloured Grape of good quality, slightly musky, plentifully borne on a strong-growing Vine covered with large, thick, and beautiful foliage. The Lincoln, a Grape of the festivals family, a strong-growing Vine, large, long-shouldered bunches of rather small jet-black berries, with fine blue bloom, no pulp, produced very heavily this season. Some others are coming forward, especially some crosses made by Dr. Wyllie, which promise very well.

Apples on our young trees have been both abundant and good. Those from the southern states of North America (not from South America, as some fancy) are carrying off the honours. Commencing in December with the Carolina Red June, we never saw a richer sight in fruit than this small tree with its clusters of fruit presented; the unripe and the ripened fruit exhibited all changes of colour, from light pink to a deep and glowing crimson; and when tasted they were found to be "as good as they looked." This was followed by American Summer Pearmain, Julian, Rhodes' Orange, Bruce's Summer, Taunton, Family, Stancill, Transcendent Crab, Late Wine, Abram, Horn, Gladney's Red, Kittageskee—nearly in the order in which they are narrated. We are usually troubled here with a small worm which penetrates the flesh of the Apple, and spoils the fruit; but Carolina Red June, American Summer Pearmain, Bruce's Summer, Transcendent Crab, Abram, Horn, and Gladney's Red were not at all affected. The others were, to a greater or less degree. These last-mentioned will well repay anyone who can grow Apples at all. Among European sorts Cox's Pomona, Yellow Ingestrie, Stirling Castle, and Kirke's Golden Pippin have done well, and are worth growing.

Pears.—We have had the usual abundant supply of first-class cooking (stewing and baking) Pears from our old friend the China, a tree of which should be in every garden. Beurré d'Amanlis, Baronne de Mello, Beurré Superfin, and Thompson's have furnished a few first-class fruit—enough to make us wish for more. We are told that Pears will not succeed here, but we have been so accustomed to this cuckoo cry respecting every agricultural and horticultural product now usually grown, that we almost take it to be a good omen, and prophetic rather of success. The Pear requires, as a tree, a greater age than many others to produce a paying crop of fruit. Hence in localities suited to it, and with liberal culture, some varieties are sure to succeed; and some of us are testing varieties for general information. Some varieties as the Beurré d'Amanlis, Duchesse d'Angoulême, Louise Bonne de Jersey, and others do best when worked upon Angers Quince stocks; others must have the Pear, or at least be double-grafted. We would recommend for trial Beurré Clairgeau, Williams' Bon Chrétien, Clapp's Favourite, Lawrence, Baronne de Mello, Doyenné Boussoch, and Howell on the Pear stock; Beurré Diel, Beurré Hardy, Duchesse d'Angoulême, Buffham, and Edmunds on the Quince.

Quince.—The China Quince stands at the head of this list for quality, size, health, and freedom from offal or waste—all entitle it to the first rank among Quinces. There is only one doubt about it, and that will take some extended experience to settle—whether it is only a very moderate bearer or no. This Quince is not yet ripe here. The others are all over. The Angers is the first to ripen—a very good useful fruit, and the tree makes the best stock for Pears that suit the Quince. The large Portugal comes next—stews of a beautiful colour; and lastly the Apple-shaped, also a good useful fruit. Rea's Mammoth Seedling has not yet fruited sufficiently to enable us to decide upon its merits.

Blackberries.—The Lawton, or New Rochelle, is a very fine fruit, and grows and bears most abundantly; if in rich land it becomes quite troublesome.

Raspberries.—The Semper Fidelis and some of the autumn-bearing sorts have done very well. Give the Raspberry the rich soil and the Blackberry the poor.

Gaavas, white, yellow, and purple, have been abundant and good; not so much affected by maggot as in the few previous summers.

Mangoes.—We have nine different kinds, but not all fruiting yet. Those that have fruited are very good, and the liking for them grows very rapidly upon those who frequently partake of them. The fresh seed sown in good garden soil germinates very quickly.

Date Plums, both of the Kaki and Mabola species, have been good, but not so plentiful as last year. We are happy to hear it is the intention of the Acclimatisation Society to make an effort to introduce from Japan some of their best sorts of Kaki, as the Japanese have them in almost endless variety, as Englishmen have the Apple, some for the kitchen and others for the dessert. We are not so far advanced as to be able to report the fruiting of the Date and the Cocoa Palm. Some of your readers, especially in the north, may do so, and complete a very good assortment of choice fruits. There is ample margin for a very interesting paper on Oranges, Pine Apples, and Bananas alone. We have some six new sorts of the latter from Polynesia, which we hope to report upon when they fruit.—FRUCUS (in *The Queenlander*).

ALPINE FLOWERS.

At this period of the year, when so many parties both in England and abroad are out among the mountains, primarily in search of health, but frequently connecting with it the collection of Ferns and wild flowers, it may be interesting to give a list of some of the floral beauties to be met with. Where the English names are added it will be seen that they also belong to the British flora.

Anemone alpina	Meum Mutellina
sulphurea	Myosotis alpestris
alba	Neottia spualis, Lady's Tresses
vernalis	Orchis nigra
Arnica montana	Phaca astragalina
Azalea procumbens, Creeping Azalea	Pyrula uniflora
Astragalus alpinus, Mountain Milk	Pedicularis tuberosa
Vetch	Pinguicula alpina, Alpine Butterwort
Antennaria dioica (or Gnaphalium),	Primula auricula
Cat's-foot	farinosa, Bird's-eye Primrose
Androsace Chamæjasme	elatior, Oxlip
Bartsia alpina, A pine Painted Cop	Ranunculus alpestris, Alpine Crow-
Campanula barbata	foot
Chrysanthemum coronopifolium	acutifolius
Dryas octopetala, Mountain Avena	glacialis
Eriophorum alpinum, Alpine Cotton	narcis-siflora
Grass	montanus
angustifolium, Common Cotton	Rhododendron ferrugineum
Grass	hirsutum
vaginatum, Haretail Cotton	Rosa alpina
Grass	Saxifraga aizoon
Gentiana acaulis, Dwarf Gentian	aizoides, Yellow Mountain Saxi-
bavarica	frage
campestris, Field Gentian	umbrosa, London Pride
verna, Spring Gentian	Soldanella alpina
Gemma montanum	Silene acaulis, Cushion Pink
Hedysarum Onobrychis	Salix reticulata, Net-leaved Willow
Homogone alpina	Trollius europæus, Globe Flower
Hutchinsia alpina	Trifolium alpinum
Linaria alpina	montanum
Lloydia serotina	Viola calcarata
Luzula lutea	cornuta
nivea	biflora
Maianthemum bifolium, Two-leaved	Vaccinium vaginatum
Maianthemum	Vitis-Idæa, Cowberry

—EDWARD COPLAND, *Interlaken*.

ROSE SHOWS.

A PROPOSITION has been made in a contemporary relative to an alteration in the method of exhibiting Roses, which I conceive to be so detrimental to the best interests of the queen of flowers, that I desire to enter my protest against it in *limine*. The proposition is to substitute for the present plan of showing Roses in boxes some such plan as that adopted by Mr. W. Paul at the Botanical Society's Evening Fête, of showing them in immense masses, somewhat in the style of the Rose shows at Brie. I protest against it for the following reasons:—1. That it will tend to vulgarise our exhibitions; we have enough of mass-bedding out of doors without introducing it to shows of cut flowers. 2. It will tend to do away with all the care taken to improve the quality of the Rose, either by raising new varieties or by improved methods of culture, for quality can never be a consideration where cartloads of blooms are

required. 3. It will put the amateurs quite out of the field, for no amateurs could, or would if they could, engage to contribute to such an exhibition. 4. It would do away with all rivalry, for it would be simply a contest of big battalions, and not of real culture. 5. If the formality of the present system is complained of, I do not see that it is one whit less formal to huddle together in a lump some twenty thousand roses than to place them as they are now placed in boxes. 6. I do not think that the beauty sought for would be obtained; it is one thing to arrange flowers for an evening fête, another to arrange them to be seen by daylight, and after a few hours' display of half-faded flowers, as seen at some places in France, are by no means pleasing objects.

I might like Dogberry, add other reasons to my sixthly and seventhly, but I have said enough to express my decided objection to the proposed alteration.—D. Deal.

BEDDING GERANIUMS.

I think, with the exception of Roses, it would be difficult to name a tribe of flowers in which the public is more generally interested than in bedding Geraniums. Everyone having a garden cultivates them more or less. In some places they are planted by the thousand, in others clumps dotted about in mixed borders give colour which is much required after the spring flowers are out of bloom. As conservatory plants they are, perhaps, still more valuable. Cultivated with less trouble than most others, less liable to the attacks of insects, and continuing in bloom longer than any other tribe, no wonder they are favourites. They have one great fault—they bear carriage badly when in full bloom.

For years I have raised thousands of seedlings, every flower carefully crossed with my own hands, with the hope of getting a few superior or different to those previously raised. Dr. Denny, of Stoke Newington, is also an extensive raiser, whilst Mr. Laxton, of Stamford, has taken the double ones under his care. Besides these, many persons try their hands at raising a few seedlings most years, the result being that no class of plants has been more improved than this. Most persons, perhaps all, act from mixed motives, and it may be questioned whether the ambition to be the producer of new beauties in a favourite class of flowers or fruits is not as strong a motive as the hope of pecuniary reward. One thing is certain—those who raise a good plant wish to be known as its raiser, and they feel aggrieved when others adopt their favourites without acknowledgment. In 1873 several of us who were thus interested agreed to offer prizes for our seedlings, to the exclusion of all varieties except our own, that the public might have an opportunity of seeing what we had effected. Dr. Denny and I offered £7 7s. each to be thus competed for, and others followed suit. The show was to be held at Kensington in July. The Royal Horticultural Society also offered prizes, open to all varieties—i.e., to anyone. We were glad to think that all, and ourselves as well, would have the opportunity of seeing our plants compared with those raised by others. Mark the result. The Society made no stipulation that the raiser's name should be attached to the plants shown, and I had no sooner entered the Show than Mr. Gibson, after having congratulated me on the beautiful plants shown by Messrs. Catlin and Brise, added, "But you must take care, for others are very close at your heels." Amongst the kinds shown for the best twelve new varieties are sorts about as good as yours." As may be imagined, I was soon in search of these rivals. What was my astonishment to find eleven out of the twelve plants staged were my own kinds, but the exhibitor had forgotten to attach the raiser's name to them. Finding several other collections contained varieties of mine, all without acknowledgment, it struck me our object, at any rate mine, was defeated. My object was a purely selfish one: I wished to see my sorts well grown and brought in comparison with those of others; and no doubt those who offered similar prizes under similar conditions were also disappointed, for I was the only one who repeated the offer this year.

Now, I think the object of the Society in offering prizes for new plants ought not only to be the enabling the members and visitors to judge what is the best worth cultivation, and to reward the growers, but to do honour to the raisers of the best varieties. As it is now, good things are welcomed, those who produce them are ignored. Charity ought to be performed in secret; but when we as a rule see objects of art and things of value sent out by men who wish to be unknown, then and then only need we be ashamed of our desire to be recognised. It is

unjust that persons should be assisted in taking credit to themselves that belongs to others. Let us have a fair field and no favour. Let the Society offer good prizes worth trying for, for collections, subject only to the conditions that name and raiser's name be attached to each plant, and then those interested in the matter will, I have no doubt, willingly help to find the funds. But if it is to be done it should be done at once. Time is necessary to prepare plants worth exhibiting. J. R. PEARSON, *Chilwell*.

FROME ROSE SHOW.

Will you allow me to write a few lines concerning a most commendable effort that has been made by some gentlemen at Frome Selwood, Somerset, to hold a good Rose show?

For some three or four years we have had what is called a Rose club at Frome, and also at Warminster, two towns where the Rose is, I may say, worshipped. I do not know, by the way, why the term "club" is given to our little affairs, except that they are so small that perhaps our committees hesitate to call them societies. The schedules of our show have hitherto been very simple affairs, and the rules of the club rather too simple in my opinion. We give prizes for twenty-four, twelve, six, and even one variety of Rose; but we only allow members to take one club prize, which makes it rather a poor look-out for outsiders like myself to travel eighty miles for one prize; but it is for the honour of the thing, and also for the encouragement of Rose-growing that these clubs have been formed, and the wise men who originated them think that one way to bring about this latter desideratum, is for there to be every reasonable probability that each exhibitor should take some sort of a prize. But for the encouragement of outsiders, as well as other members of the club, Mr. Keynes, of Salisbury, and Messrs. Durbin, and Pavitt, of Bath, give extra prizes which may be carried away in addition to the one club prize, so that you may (as I am happy to say I did this year) carry away four first prizes.

This season, however, the Frome club determined to do something great, and after great efforts on their part actually gave an open prize of £20 for twenty-four distinct varieties, three blooms of each. At least they divided £20 in this way: first prize £15, and second prize £5. This great inducement brought some of the largest growers in England. Cranston thought it worth his while to send all the way from Hereford; Prince came himself from Oxford with most magnificent specimens from his seedling Briar, which perfectly astonished me. Their marvellous freshness, considering the hot night we had and the long journey, their robustness (the date was July 19th) at the time of year, their form and colour, indeed their "good all round" condition was wonderful. Mr. Cant—the brave, the enterprising, the grand grower from Essex, came with blooms that would have been superb if they could but have been seen the night before. Mr. Bennett, of Stapleford, put in an appearance, and one, too, which was so good that in any other company he would have been *facile princeps*. Last of all in enumeration, but first in merit, as the Judges decided, came my friend the veteran grower from Salisbury—the, may I be pardoned if I say, historical "Johnnie Keynes." Fresh from his nurseries with Roses cut that very morning, or at least the night before, came the good old man, and what a sight his boxes were! "In to a day, my dear sir; in to a day!" he told me at Salisbury two days before, and indeed he was, as his Moss Roses proved. I went round them carefully, and I think I never saw before such a good general bloom as he had. "Oceans of bloom" is the only phrase I can employ; and ah! Messrs. Editors, what joys, as I write this, does this term cause me! I saw long lines of every Rose I love. I saw thousands of such Roses as Lefebvre, Rothschild, Baumann, Olibo, and all the new ones. I wandered down long lines of such shy bloomers as Louis Van Houtte and Lord Macaulay, and each Rose seemed to me more perfect than the last. I could have spent a week in that nursery, and then not cry "Enough." The hospitable owner had almost to drag me to dinner.

Well, gentlemen, this grand old grower, who, as he fondly and proudly boasts, has taught the Rose world a principle which is the very foundation of success in exhibiting—viz., disbudding, came to Frome, and not only came, for *venit, vidit, et vicit*. He took the first prize; he did more—he actually took it home with him in his coat pockets, "*all in silver*." Yes, that game old fellow with a most smiling face and a most loaded person, walked off with £15 in shilling pieces, paid to

him by the Hon. Sec. from the gate money; but Mr. Prince ran him uncommonly close. I believe the judgment was perfectly right, but I went through those stands time after time all through the day, and I never saw, except for our prize at Exeter, a closer thing. Bravo the seedling Briar! To fight Mr. Keynes almost at home, and to press him so hard as Mr. Prince did at Frome, speaks volumes for the staying enduring properties of that stock. I do not know how we are to do without cultivating it if we wish to exhibit at the later shows, for the hot suns of July make short work of Manotti and standard Roses, and the seedling only comes to perfection when the others are done. The Teas that I bought of Mr. Prince are now just in their first beauty against a south wall, whilst the other Teas are preparing for their second blooming. I do not think an exhibitor who wants to ensure a succession can do better than buy a certain quantity of seedling Briar Roses of all the best sorts. He will then, in my opinion, be able to show at the Crystal Palace, and if he likes at Gratham on the 25th of July.

At Frome this year Mr. Prince showed a treble of Baron de Bonstetten, exceedingly good; indeed, all his high-coloured Roses were perfect. He spoilt his box—and at every show yet, in my opinion, he has done the same—by staging great coarse specimens of that abomination Paul Neron. What beauty can there be in this Rose? It is large, immense indeed, but it is coarse, washy in colour, and generally of very bad form, and yet there are some good judges of Roses who always show it. My friend Mr. Turner, of Slough, is never without it, and it did more to spoil his box, and so make him lose the first prize for seventy-two at the National, than anything else.

At Frome, as elsewhere in the country, wherever a Rose show is held, hospitality was the order of the day, and how kind our good friends at Frome were I cannot tell. One gentleman, in whose grounds the Show was held, a perfect stranger to me, took me to his house, put refreshments before me, told me that he must leave me, but begged me to make myself at home, stay as long as I liked, do what I liked, and I should delight him. And I did, Messrs. Editors: I found a shady tree on his lawn near the band (the excellent band of the 15th Regiment), lay down, listened to the music till (I blush to say it) I went off into a most delicious dose; then at six o'clock I went to evensong at the glorious church which Mr. Bennett has made famous throughout the world. Late at night I landed at Bridport, with ten miles' drive before me, and the comet to light me on my way home.—JOHN B. M. CANN, *Monkton Wyld*.

ROYAL HORTICULTURAL SOCIETY.

AUGUST 5TH.

FRUIT COMMITTEE.—Alfred Smee, Esq., F.R.S., in the chair. It having been brought to the notice of the Committee that in the schedule of the Exhibition on September 2nd no number is specified as to the quantity to form a dish of Potatoes, it was decided that henceforth a dish of Potatoes shall consist of nine tubers.

A Cucumber called Green Gem was sent by Mr. Dean, of Bedford, which was passed. Messrs. Cuthush & Son, of Highgate, sent specimens of Princess Alice Cucumber, a good, prolific, and hardy variety of good deep colour, but it was not thought any better than other varieties in cultivation. Mr. Alfred Smee brought specimens of autumn-sown Tripoli Onions of various kinds, from seed supplied by Messrs. Carter & Co., which had been manured with phosphate of ammonia. They were very good specimens.

Two very handsome specimens of Smooth Cayenne Pine were sent from the Royal Gardens at Frogmore. They weighed 9 lbs. each, and were awarded a cultural commendation. Mr. A. Crawford, the Gardens, Thornden, Brentwood, sent fruit of a seedling Nectarine. This was of an excellent flavour and a good fruit, but it was so similar to Elrge that the Committee thought it was not advisable to introduce it as a new variety. Mr. Sage, of the Gardens, Ashridge, brought excellent specimens of Walburton Admirable. Mr. J. Clark, Roehampton, sent a dish of Moorpark Apricots, which were of good flavour. Mr. Woodbridge, of Lion House Gardens, Isleworth, exhibited five different varieties of Plums. Mr. N. Kneller, Malshanger, sent a seedling Melon, which was not sufficiently good to merit a certificate.

FLORAL COMMITTEE.—Mr. J. Fraser in the chair. The number of subjects submitted to the Committee on this occasion was small as compared to those brought forward at the earlier meetings. Messrs. Veitch had a first-class certificate for a seedling

Zygopetalum with a bluish purple lip and brown-black sepals and petals—a very effective flower. The same firm also sent a choice group of Orchids, including fine specimens of *Odontoglossum Sealeperianum*, *Saccolabium Blumei majus*; also *Cypripedium Sedeni* and *Dominianum*, together with *Dendrochloa fassus* and other ornamental Palms.

From Mr. Ball, of Chelsea, came a group of new plants, as *Campsidium filiciforme*, *Picus Parcelii*, *Odontoglossum Reelii* with a charming flower, *Verschaffeltia melanochates*, &c., which have been noticed in previous reports, together with *Metroxylon filare*, a handsome Palm for table decoration, which received a first-class certificate. Mr. Denning, gardener to Lord Lonsborough, had a like award for a *Dendrobium* with very small but extremely numerous orange flowers, marked with narrow purplish streaks. Messrs. F. & A. Smith, of Dulwich, sent a splendid group of Balsams; Mr. Offord, nurseryman, Upper Clapton, an *Ageratum*, called Clapton Gem, but of coarse habit, though producing large heads; Mr. Eckford, gardener to the Earl of Radnor, Coleshill, a stand of seedling Verbenas; and Mr. H. Loder, gardener to H. B. Hinnell, Esq., Forest Hill, a gigantic specimen of *Lilium auratum* in an 11-inch pot, with two spikes 10 feet high, but the flowers past. G. F. Wilson, Esq., Heathside, Weybridge, had a first-class certificate for *Lilium speciosum atrosanguineum rubrum*, coloured like the true *L. speciosum rubrum*, but with flowers larger (fully 8 inches in diameter) and much earlier, the typical variety being one of the latest of the group. Mr. Rudolph Barr again contributed a group of Lilies, consisting of about a dozen species and varieties.

Mr. Kinghorn, of the Sheen Nurseries, Richmond, exhibited a *Fuchsia*, called *Richii*, sent to H. W. Powhall, Esq., by Dr. Suter, Bishop of Nelson, New Zealand. This received a botanical certificate, and was subsequently identified as *F. procumbens* (*R. Cunningham*). It is a neat basket plant, but presents nothing remarkable in its flowers, which are small, nearly erect, yellow, with purplish stamens. Mr. R. Dean, of Ealing, sent cut flowers of African and French Marigolds, the latter very fine, and recommended for bedding, but there was no means of judging of the habit of the plants. Some cut flowers of shrubs were also shown, including *Pavia macrostachya* and *Clethra arborea*, of which the flowers bear a striking resemblance to those of the Lily of the Valley. From Messrs. Paul & Son, Cheshunt, came a large collection of cut Roses.

PACKING FRUITS.

To prevent the placing of boxes of fruits and flowers on their sides, it has long been my practice to tie one, two, or three boxes or baskets on the top of a larger one, so that one position only is left for the parcel to rest on. But a basket with a cross-handle, and strong wooden or osier lid, I find is the best article to use. A Peach-box or flower basket, if flat, can act as a bottom tied to the other. I have found no plan so satisfactory as this. Of course it is very important that nothing should be moveable when packed; no shaking of trains or vans should put the articles out of their place.

Grapes are generally sent into Covent Garden in cross-handled baskets, named Sea-kale baskets, placed on soft paper shavings, with clean paper next the fruit. Each bunch is placed upright, as close together as they can be packed, but not wrapped in anything, as the bunches rub each other less than any material which can be used; thin paper is placed over the top, and wadding or soft shavings used to fill up any vacancies between the fruit and sides of the baskets.

There are few fruits which wadding does not taste when placed next them. Thin tissue paper should be between the fruits and wadding.—M. TEMPLE (in *The Gardener*).

LESSONS FROM THE DROUGHT.

THROUGHOUT the greater part of the country the drought has been severely felt. In some parts it has been disastrous to the farmer; and coupled with the dry and frosty nights, has had disastrous effects on nursery stock and on gardens, the cause of much anxiety and extra labour in watering and other care, wherever trees and shrubs have been recently moved on any extensive scale: even those moved early in autumn with balls, and which looked quite fresh up to the middle of April, though quite taken to the new positions, suffered nearly as much as those spring-planted, simply because they had not had time to root deep. When the moisture became exhausted from the immediate surface, they were in equal distress with those planted in spring.

In pulling up some shrubs lately which were dead, or seem-

ingly so, a rather curious appearance presented itself: the roots were bristling with young white growing points, showing that there was plenty of life there, although the knife showed by cutting the bark that the stems were dead to the surface of the soil. Those plants, *Cupressus Lawsonii*, had been repeatedly watered, but had failed to keep the part above ground alive; evaporation had been too rapid throughout the heat and dryness of the day, and coldness and equal dryness at night, that the plant became exhausted in consequence. Shade, therefore, in this case would have been much more beneficial than watering, but for the practical difficulty of shading trees and shrubs per acre.

Exhaustion, we need not say, in a more or less aggravated form, was the general effect on vegetation, but in a very different degree on different subjects: whereas some plants became permanently paralysed, others only seemed to husband their energies and become exhausted in appearance only. Broad-leaved plants such as *Rhododendrons*, *American Azaleas*, and the broad-leaved Japanese plants, suffered permanently, especially those subjected to the full blaze of the sun, and we believe more from the actual heat than the drought. The sun at 100° to 120° blazing on them actually had the same effect as fire—we mean that the atmosphere heated to that extent would not have affected the plants in the same way had they been shaded. Almost the whole of the *Coniferae* within our experience, which includes a good many representatives of the family, stood the drought well, their wiry foliage being capable of withstanding a dry atmosphere, like the *Acacias* and other similar-leaved plants of Australia. We refer to recently-planted subjects; and now since rain has fallen, they are starting to grow with a bound; they make multitudes of roots with greater freedom when seemingly in an over-dry state. This is strikingly illustrated in the case of two specimen plants of *Thuja's dolabrata*, both which had in winter occupied prominent positions temporarily for the purpose of decoration, from which they were removed in March. It was June when one of them became extremely dry at the root, while the other was even wet; both are equally fresh at top, but the dry one has made an enormous mass of fresh white roots, while the other and wet one had not made any. What has been the cause of this important difference? Was it the comparative warmth consequent on the dryness that encouraged root-action, or the natural effort of the plant to obtain for its healthful existence moisture which the other enjoyed? The moist atmosphere of winter prevented exhaustion in the case of the dry tree. Probably *Coniferous* trees as a whole prefer a moist atmosphere and a moderately dry soil. Their natural habitats suggest this idea: the various forms of *Cupressus Lawsonii* seem to stand drought the worst.

In the kitchen garden the heat and drought have had similar effects on vegetables. Broccoli, Cauliflower, and Cabbages showed exhaustion, in spite of much artificial watering. Those useful vegetables will not stand heat, it is foreign to their nature. Onions, on the other hand, though they assume that glaucous bluish green which is the effect of drought, made good their hold in the soil, and when rain came made quite a rush into growth. Water in their case would be beneficial with a scorching sun; but the Cabbage tribe under strong sun, even with sufficient root moisture, make a flaccid and weakly growth. Herein lies the superiority of Scotland over the South in the matter of small fruits and succulent vegetables, and it is foolish to make disparaging comparisons of the respective cultivations. The French are not supposed to excel in summer vegetables, and the northern gardener is supposed to beat his southern neighbours; but if the matter be closely inquired into, it will be found that climate has most to do with it, and not altogether cultural skill. A hot dry atmosphere will cause young Cauliflower to bolt and open their heads in spite of the cultivation, and Cabbage will refuse to make solid crisp hearts; but we in the south may fairly claim to know more about the cultivation of French Beans, Scarlet Runners, Tomatoes, Vegetable Marrows, &c.

Such a season as the present teaches us lessons which have been learned generations ago in Spain—the value of water and irrigation. All watering under such intense heat is useless unless thorough, or in the shape of complete irrigation. This we have been in a position to prove this season by having an abundant supply of water at various points and scarcity at others. At one point we were able to allow water to run in a stream among some Roses, and their freshness and fullness of bloom was a complete contrast to others. Moreover, these irrigated Roses have been completely free from blight, while

others were hopelessly infested, and we irrigated a large portion of flower garden with marked results under the bright sunshine. No garden can be called complete without a ramification of pipes and hydrants, and an abundant supply of water, which is procurable in the majority of gardens. Water is more particularly necessary in the fruit garden. The flowers and vegetables are too apt to get a full share of water at the expense of fruit trees. Heat and dryness have a ripening or maturing effect on the wood of fruit trees, but in conjunction with plenty of nourishment at the root, otherwise they have a decidedly exhausting effect; and although wood may appear ripe, and abundance of fruit buds set, say on Peach trees, the following spring will most assuredly tell a tale of bud-dropping, fruit not setting, and disappointment at the stoning period. And the same remarks apply to fruit trees in general. Shade is a most important auxiliary in a variety of cases during a season of excessive heat, especially in the case of newly-planted trees and shrubs, while watering at the root will be found of no avail to keep plants alive. Shade in some form will be quite successful. It obviates the scorching effects of the sun on a plant, the cultivation of which has been impaired by removal. Materials for shading need not be expensive or difficult to get. Branches of Spruce or of common Laurel, even a handful of grass or straw thrown over a plant, will shade it sufficiently to carry it through a trying time. The shade of trees to grass enables it to retain its green appearance, while that exposed to the sun is scorched to the colour of hay.

It is a bad practice to mow grass too closely in times of heat and drought. Grass shades itself, and mulches the ground, and so prevents the sun drying up the soil. Moreover, grass condenses, and is an instrument in the manufacture of dew for the maintenance of its own growth. Without the grass dew is not deposited, and it should therefore not be too closely mown in very dry weather. All that is necessary for appearance is an even surface, which can be effected by adjusting the cutters of the machine by a sufficient depression of the front roller. Akin to shade is the benefit derived from the use of the syringe on newly-planted shrubs and trees. Moistening the leaves and branches in the evening assists the leaves materially to maintain life. It may sometimes be possible to moisten a whole clump of shrubs or trees by a hose from a hydrant; or, when such is not attainable, a large garden engine and attendant water-barrel will effect much with the labour of two men. With several hundred feet of hose and a small hand fire-engine we have been able to do good service among shrubs and trees lately planted. A dry spring and a heavy soil have taught us the lesson that the early autumn is the best time to transplant trees and shrubs, not excepting *Hollies* and *Coniferae*.

There is one class of plants that shows wonderful tenacity of life under heat and drought—namely, Mosses and Lichens. No plant seems to enjoy moisture more than they do, even to saturation, when they grow with wonderful rapidity, yet none stand drought better. The sun does not seem to have the power of killing many of them, even on stones that become so hot that one cannot bear the heat with the hand. Even some Ferns bear the dryness with impunity. Large masses of the common *Polypody* may be seen perfectly dried up; to all appearance the fronds are gone, and the roots like a door-mat, yet with the first rain it springs into a mass of verdure.—(*The Gardener*.)

WINDOW POT PLANTS.

THE desire to foster a love of window plants among cottagers has long been experienced by the conductors of our horticultural journals, and it is gratifying to see the headway this branch of cultivation has made, and its beautifying effect on many of the dwellings of our artisans. One drawback I have frequently noticed is that, notwithstanding the owners exercise the greatest care and patience with their plants, these do not seem to thrive properly. In many cases which I have examined the reason is evidently the condition of the pots; therefore a hint or two may be serviceable to many.

It is too often the custom to place window plants—*Geraniums*, *Calceolarias*, *Fuchsias*, &c., in their young state in small and dirty pots, and when the plant has attained a certain size, if it is fortunate enough to do so, to endeavour to remove it to a larger pot. From the originally dirty state of the pot this is found to be a work of difficulty, and the plant has to be literally cut out, and the roots are consequently

injured, often leading to the death of the plant. Before potting plants well wash the pots—no matter whether they are new or old—with warm water and soap. Wash them both inside and out, using a scrubbing-brush. Afterwards repotting is simple. A tap of the hand at the bottom of the pot will cause plant and soil to leave the pot as easily and cleanly as a good cook can turn out the evidence of her skill from a well-battered dish.

The second drawback to successful cultivation to which I would call attention is the prevalence of painted pots. This is a great mistake. All window pots should be porous, and by daubing them thickly over with paint, the outer air is kept from the roots. In place of this let the outside of the pots be well scrubbed with soap and warm water at least twice or thrice a-year. Attention to these two simple recommendations will result in great satisfaction to many who are now perplexed as to the reason why their window plants are not equal to those they see elsewhere.—BERA.

THE DEFICIENT RAINFALL OF THE PRESENT SEASON.

The drought of the present season being remarkable, a few observations on the subject will not be out of place. The following table shows the rainfall in inches and hundredth parts for the first seven months of the driest of the last twenty years, as well as that of the November and December preceding each. I have thought it advisable to add the latter two months, as the copious rainfall which is usual in these doubtless exercises considerable influence on the supply of water for domestic purposes in the following summer; for instance, the effect of the limited rainfall of last November and December is seen in the lack of water in some of our springs. I have coupled in this table the rainfall of one wet period by way of contrast.

RAINFALL AT LINTON PARK, KENT, FOR A PERIOD OF NINE MONTHS.

	1857-58	1863-64	1867-68	1869-70	1873-74	1879-80
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
November	2.15	1.85	1.26	2.14	1.73	3.67
December	0.49	1.71	2.42	3.79	0.46	3.82
January	0.79	0.77	3.65	1.66	1.27	2.87
February	0.77	1.36	1.37	1.14	1.31	1.49
March	0.80	3.06	1.29	1.61	0.83	2.61
April	1.93	0.59	1.21	0.43	1.91	2.81
May	2.16	2.35	1.92	1.11	1.21	3.12
June	0.67	1.24	0.71	0.32	2.63	5.09
July	2.63	0.63	0.61	1.95	0.72	2.97
Total for 9 consecutive months	12.45	13.56	11.24	14.21	12.07	27.49
Total for the 7 first months of each year	9.81	10.00	10.56	8.23	9.83	20.00

From the above it will be seen that the rainfall of the past nine months, November and December of last year, and the first seven of the present, is less than that for any like period during the last twenty years; while for the past seven months of the present year alone upwards of $1\frac{1}{2}$ inch more fell than in 1870, and a little more than in 1855. But I find, if we go back another month and include October as well as November and December in each period, we shall still make the present season a dry one, slightly more so than either of the two periods first mentioned in the table, and considerably more so than the same time in 1869-70.

The current opinion, therefore, that we are passing through a dry period is well founded, yet I think there have been summers in which vegetation seemed in greater distress. In general I believe corn is good, and the straw of a full average length. The hay crop has certainly been light, and the pastures at the present time present a burnt-up appearance, yet not worse than they have often done, and not so bad as at the same time in 1868, when, in addition to the turf, many timber trees showed symptoms of distress, and in some places even healthy long-established trees died. I have certainly not met with anything of this kind the present season, but we may have it yet, for at the time I write (August 1st) there are no immediate signs of rain, and of late we have been often tantalised by prospects of it which have never been realised; so that we have given up regarding a close sultry atmosphere, or a cloudy sky and falling barometer, as the indication of coming rain. Very hot days have given place to moderately warm ones without any downfall; and we have in a manner become

so accustomed to dry weather, that were it not for the want of water we might almost think that vegetation was getting injured to it, and rain could be dispensed with. The prolonged drought, however, will tell its tale in the absence or deficiency of after-crops. I may sum-up the results of my observations on the season by saying that I give the good condition in which the ground was during the spring all the credit for what is good in the appearance of the crops at the present time, and will lay all the blame of what is bad on the atmosphere. At another time I will endeavour to explain this, if it requires any explanation; and I will here merely add that I fear more for the next two months than deplore the present, for certainly there has been more than one season in which vegetation was in greater distress than it is now, but I fear the water-supply for domestic use was never lower.—J. RONSON.

DESTROYING WASPS.

I SEE in your paper some observations on taking the nests of wasps. With me the process is very simple and cheap, and in plentiful years I have taken three or four nests in an evening.

In the first place get a small quantity of gas tar, mark the holes in the day, and when the wasps are all comfortably housed for the night pour in a moderate quantity of tar, then stop the hole with a wisp of straw previously dipped in the tar, and you will see no more of them. In one case the nest was in some loose peat soil with many holes preventing the tar being poured in. I took a sheet of brown paper well covered with short fibrous matter mixed with tar, and pegged it down, covering the whole of the holes, when no wasps escaped in the morning. My gardeners objected to the risk, therefore I undertook the business, and I believe entirely removed their fears in the simplicity of the proceeding.—JONAH S. WELLS.

"B." asks (page 28) if anyone knows of a better plan than his. I find the best and easiest plan is to go with a lantern when dark, and light a squib about 6 inches long, put a piece of clay in the hole, and in less than five minutes the nest can be dug out.—C. PURROTT.

HAVING seen in No. 695 the modes of treatment adopted for the destruction of wasps by your two correspondents, "H. W. S. C." and "O. Orpet," allow me to state the mode of treatment I have adopted when troubled with these pests in a former situation, and which, I think, is very simple, and I know to be very effectual. In the first place we used to take a walk round at midday in the vicinity of the garden and adjoining park to find out the nests, and then in the evening, when most of the wasps were at home after their day's mischief, we took with us a bottle of Scott's wasp-destroyer, some wadding or wool, and a small stick, first well moistening the wadding with the mixture (only a small piece of wadding is required), and then inserted it into the holes. In the morning, to satisfy ourselves, we have gone round and dug the nests out, and in not a single instance have I found a live wasp. The same remedy has also proved most effectual in vineries during the day. On going round the bunches of Grapes, and where the wasps had begun to eat the berries, we dropped a little of the mixture from a pointed stick into them. They devour it greedily for about a minute, then reel and tumble on the floor dead. I can say I have swept them up by hundreds. The wasps will, after a day or two, be, to use the words of the gardener under whom I was then serving, completely driven out of the houses, as the mixture smells rather strongly on a hot day, although it is not in any way disagreeable.—F. H. FROUD, *Putteridge Park Gardens*.

FORMING A GARDEN ON PEATY SOIL.

I AM about to convert into a garden about two acres of old grass land. It is principally peat, from 5 to 7 feet deep. I purpose first to plough it, and, after it is dry enough, to burn it, and spread the ashes on the top, ploughing it again before winter, during which it will remain untouched.

If you or any of your correspondents know of a better plan than this I should feel obliged by being made acquainted with it.—R. REED.

I should hardly think it advisable to burn all the soil and herbage the plough turns up, assuming it to be ploughed the

ordinary depth, but the turf and other herbage might be pared off with about 2 inches or so of the soil, and that might be burnt. This paring is sometimes done by hand, at other times by a kind of paring plough drawn by one or more horses, but in this case the slice taken off is not so uniformly thin as where the work is done by hand, and patches of turf are often missed. I should, however, certainly recommend paring in preference to burning the whole of the soil turned up by the plough. Paring and burning have often been condemned as diminishing the depth and quantity of staple soil, and trenching or otherwise burying the herbage in the ground that it may decay there has been recommended instead; but peat soil plants as a rule are slow in decaying, so that burning is often resorted to from necessity, and as you say the staple material is from 5 to 7 feet deep, there is ample to work upon.

The first thing I would do with the soil would be to have it well drained if necessary; and as water is often found below the peat it would be well to see to this, as draining can be effected much more easily now than hereafter. In general, the difficulty with peat land is to get it solid enough to retain moisture, and to assist this large quantities of sand, or it may be clay, may be added—sand if the peat does not contain enough of it, or clay if it is of too open a character. I am unwilling to recommend lime, as it is so destructive to vegetable substances that it would destroy what ought to assist in supporting several crops; but if it is a sort of sandy peat, lime may be used moderately. In general, however, the ashes resulting from the burning will be sufficient for one year, and the appearance of the crop will afterwards indicate what is best. Potatoes, most root crops, and Celery do well on such a soil, also Asparagus and Lettuce, while for the Cabbage tribe it is not so good; still in fresh soil nearly everything succeeds for a time, and I have seen excellent Plums produced.

Full exposure during the winter is necessary to drive wire-worms and other insect life abounding in a soil that has not been in cultivation; therefore plough it before winter as you propose. But I would recommend that if possible one half of the ground should be pared and burnt, as described above, and the other trenched by hand, burying the herbage no deeper than is necessary to prevent its again vegetating, and keeping as much of the top soil at the surface as possible, but stirring the whole to the depth necessary for all kinds of crops. A comparison of the two pieces would probably show that for the first year, and perhaps a second, that subjected to paring and burning would produce the better crops, but after that time I imagine the other would have its turn, and maintain its superiority for some time.—J. RONSON.

GOLDEN CHAMPION GRAPE SPLITTING.

From a reply to a correspondent recently, I observe that this Grape is splitting with him. It does so at times when there is an excess of sap sent up by its over-vigorous roots. The remedy for splitting in the case of any Grape is so self-evident that one is at a loss to conceive why it is not applied the moment the first berry gives way—namely, the diminution of the supply of sap by cutting the stems that bear the bunches about half-through a short way below each bunch—that is, between the main stem and bunch.—Vitis.

LEPTOSPERMUM OBOVATUM HARDY IN SCOTLAND.

THE specimen I send you of *Leptospermum obovatum* was taken to-day from an old bush in the gardens of Largo House, Fifeshire, where it must either have been planted early in the present or late in the last century. Largo House, once the property of Sir Andrew Wood, the famous Scottish admiral of the fifteenth and sixteenth centuries, is situated near the birthplace of Robinson Crusoe on the southern coast of Fife, overlooking the song-renowned Largo Bay, and backed by the scarcely less noted Largo Law, which rises on its north side to an altitude of 948 feet. In the grounds are numerous large aged specimens of *Arbutus*, Sweet Bay, Evergreen Oak, common and Portugal Laurels, &c., which give unmistakable evidence of the mildness of the climate; but I have nowhere met with such an old freely-growing specimen belonging to this peculiarly elegant genus of Australasian *Myrtaceæ*.—W. G.

ROCKWORK AT SANDRINGHAM. — Our readers will have remarked the fine bold strata of rocks which are represented in

the foreground of our illustration of Sandringham in our last week's number. We are informed that these rocks are artificial, and were constructed by Mr. James Pulham, of Broxbourne, on whom the extremely natural effect and artistic arrangement reflect great credit.

HOLLYHOCK DISEASE.

Was it not rather hasty to recommend the destruction of Hollyhocks affected by fungus? I see some of my neighbours get some flowers, and the plants in some instances look as if they would fight through the attack. The Mallow, too, has thrown up afresh and is blooming freely. There is a slight appearance of fungus, but very slight at present. I wish now I had kept my plants and seen if they could not have been saved.—J. W. PEWTERESS.

THE HURRICANE LANTERN.

THE hurricane lantern (*fig. 38*), which we now introduce to the notice of our readers, is so called because no amount of agitation either of wind or motion will extinguish it. Besides this qualification, it possesses several others, which render it extremely useful in every household, especially in the country. It is so perfectly safe that no accident from fire can possibly arise through it, except by the most utter carelessness, for the glass with which it is surrounded is so thick that it cannot easily be broken, and is so fixed that it cannot alter its position. The oil with which it is used is paraffin, and the light is a very brilliant one. As a garden lantern, or for country use about stables and outbuildings, it is the best we have seen, as being so perfectly safe and so bright. What a contrast to the old stable lantern, which carries a light but gives little, and which necessitates the removal of the candle when you enter the stable if you are to benefit by its use! We can highly recommend this lantern after having

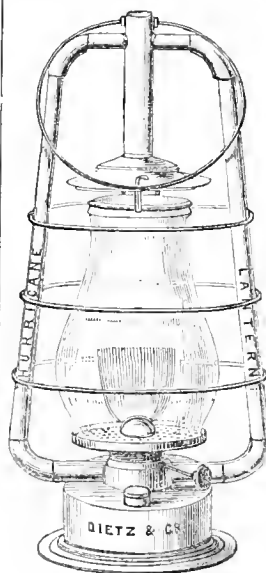


Fig. 38.

used it, and Messrs. Dietz & Co., of Carter Lane, have conferred a benefit on country people by the introduction.

COPING BOARDS AS A PROTECTION FROM HAIL.

To speak of hail in July would seem to approach an absurdity, yet it is a fact, and in some respects it is feared a sad one. A long term of drought and extreme heat is succeeded by violent thunderstorms, the rain being of incalculable benefit, but the hailstones doing considerable injury. As may be imagined, it is anything but pleasant just when the scarcity of vegetables had reached its height, and when showers came bringing hope of relief, to see the remnant shattered by pellets of ice, as was the case on July 28th. The storm burst over this district (Lincoln) at noon on that day, and in half an hour the ground was covered 2 inches thick with hailstones the size of rifle bullets, many, indeed, exceeding an inch in diameter. The scene was emphatically a wintry one. Flowers are dashed and shattered exceedingly, pods of Peas are cut off, Scarlet Runners hanging in shreds, the foliage of Rhubarb and the Cabbage tribe riddled, foliage cut off trees and hedges, and fruit bruised severely. On some walls destitute of coping both fruit and foliage have been extensively cut off trees, and I am quite satisfied that had it not been for a 14-inch board-coping on a south wall the fruit of Apricots would have been spoiled, and the foliage of young Peach trees cut in shreds. I can see this from the stray shoots which have broken loose or stand out from the wall being in tatters.

Taking advantage of Mr. Luckhurst's experience as given in this journal, and having a lot of 7-by-1-inch deals by him, my

employer had them battened together and put up. We are satisfied they are a great protection from frost in winter and spring, and have now proved their usefulness in saving both fruit and fruit trees from the damaging effects of hail in summer. I am of opinion if these overhanging wood or glass copings were in more general use, that wall fruit would be more plentiful, and that Peach trees in cold localities would be in a substantial measure preserved against the destructive effects of severe winters. There would seem to be some misgivings lest the coping should be in some way detrimental to the trees by being left up in summer. It is not so, at any rate with walls of 10 feet high and upwards; with lower ones I have no experience. The boards here are easily moveable, but instead of making a mistake in leaving them up we should certainly have erred in taking them down.

The track of the storm was narrow—a mile or two wide, and had the corn been ripe the loss must have been immense; as it is, a great deal is knocked out.—J. WRIGHT.

THE BEAUTIFUL AND USEFUL INSECTS OF OUR GARDENS.—No. 22.

RECENTLY I have been somewhat amused at a popular misapprehension into which a number of people, otherwise tolerably shrewd, seem to have fallen. As I was pointing out to a friend the beauties observable in some insects I happened to remark that in these small animals there are variations in form and colouring which are, as it were, a compensation for their minute dimensions as compared with creatures ranking above them in the series of Nature. My friend pondered a little; I perceived some unsatisfactory idea was working in his mind. At last he brought it out. "Yes, that's true; but surely you don't call butterflies animals!" "Why not?" I answered. "They are as much entitled to the name as a dog, an eagle, or a fish. The word 'animal' certainly covers (without being over-particular about creatures near the boundary) all insects, and indeed whatever, by possessing sentient life and the power of moving about at its will, shows that it does not belong to the vegetable kingdom." But I found, on inquiry, that my friend was not solitary in his opinion; people frequently assume that an "animal" does not belong, as an appellation, to the lower classes in our zoological arrangement; and the error is also perpetuated in print, as I detect in several books the phrase "animals and birds," where the author evidently means "quadrupeds and birds." Of course a quadruped or mammal is an animal, still the possession of four legs gives no special claim to the epithet, and a two-legged bird, a six-legged insect—nay, a hundred-legged *Julus*, has an equal right to it.

Several of the butterflies that are regarded as specially associated with fields and lanes visit our gardens in the summer, not for the purpose of depositing eggs upon cultivated plants, nor even upon the grasses of our lawns; they are drawn by the attractions of the flower beds, perceived by them at a good distance off—certainly not by sight, but by smell or some other sense unknown to us. Entering the conservatory or the hothouse their end is often an unfortunate one; failing to find their way out they beat themselves hopelessly against the glass, or are made prey of by some prowling spider.

The Large Heath, also called the Small Meadow Brown (*Euphydryas Tithonus*), is a butterfly that may be noticed on garden flowers in July and the beginning of August, and it has a peculiar habit of pitching upon a leaf before it approaches the flower it is in quest of, and, having settled, it turns itself round. Usually the insect settles at first with its head away from the observer, and coming by the "right about face," it looks towards him. This species, like its relatives the Meadow Brown and the Wall butterfly, belongs to the group of butterflies called "Satyrs," though the appropriateness of the name is not apparent. I do not know whether the satyrs of the mythologic stories were slow in their movements, one would rather conclude just the reverse of that; but the Satyr butterflies are tardy fliers, and amongst them *E. Tithonus*, also unlike the hunter from which it takes the specific name.

This species, though not a showy one like the gay *Vanessas* that float on the summer breeze with marvellous rapidity, has elegant markings; the bordering of all the upper surface is brown, the centre of the wings a reddish brown, varying in shade, with two black spots on the fore wings enclosing white pupils. The under side has most variety of marking on the hind wings, displaying marblings of grey on a darker ground, and having four dark spots with white centres. The yellow

eggs of this butterfly are laid upon the blades of common grasses, each like a pyramid in miniature seen by a magnifier, but marked with a number of ribs. When the larvae come forth in August they feed for a month or two, not much increasing in size before the winter sets in, when they become torpid and sleep till the spring at the roots of the herbage. In the spring the larvae feed again on several Grasses, being partial to the Couch Grass (*Triticum repens*), so that they may be considered of some slight utility to the agriculturist in checking the growth of this pest. These larvae are spindle or shuttle-shaped, with small heads and two points at the anal extremity of the body, which is of an olive green, or sometimes a dull brown colour, with a dark stripe down the back, and two pale stripes on each side. The chrysalis is hung head downwards from a grass stem or leaf to which the larva had previously spun a pad of silk.

A much handsomer butterfly than this is the Wall (*Pyranga Megara*), a little like the preceding in the general aspect of the upper surface, but larger; and if we turn a specimen over to examine the under side we find it beautifully marbled, the colouring being several tints of brown and grey. The principal effect is, however, produced by six black spots on the hind margin, each of which is surrounded by four rings of different colours. This insect, which I have known to receive among entomologists the familiar name of "Meggie," does not often enter gardens, though so partial to roadsides and open spaces. The appellation of the Wall butterfly was given to it from its habit of pitching on walls or palings, pausing there until some bypasser comes near, and then darting off with speed. Indeed, it is capable of more rapid flights than others of the Satyrs, and I have seen it soaring so high in the woods as to be mistaken for one of the Pteridaries; whereas at other times parties of these butterflies may be noticed flying languidly about, so that "Meggie" is apt to be capricious. Most years there are two broods or flights of the species, some being out in May and some again in August. The larvae live and thrive upon Grasses like others of the Satyr tribe.

Some of the small butterflies known as the Hairstreaks make occasional excursions into gardens, that of the Black Hairstreak (*Thecla W. album*) amongst these, perhaps from the fact that the larva (*fig. 39*) feeds upon Elm, and rows of this tree are often planted near to the boundaries of parks, and solitary individuals scattered about pleasure grounds. This is an insect that, though by no means common, has seemingly of late years become more plentiful, or it may be that the butterfly had been generally overlooked by observers. It is only within the last few years that English entomologists have succeeded in finding the larva. All the beauty of this brisk little insect lies on the under side; above, all the wings present a very dull appearance. All the wings beneath are greyish brown, crossed by white lines or bands, those on the hind wings assuming the form of the letter W, and along the margin is an orange band and a row of black spots. These wings have also two conspicuous tails. Like its relative, *Thecla Quercus*, the species before us will soar upwards to the height of 50 feet when in the humour, and alight on the higher branches of the Elm; the attraction of flowers, especially those of the Bramble and Clematis in the hedges, brings it usually near *terra firma*. It has not been noted by those who have seen the insect in gardens what particular flowers it most affects of those cultivated and in bloom during July and August. This Hairstreak is seldom observed in the west of England, and it almost disappears as we approach the north. In Scotland and Ireland it is unknown. The young caterpillars appear in the spring of the year, from eggs fastened on the twigs of the Elm by the mother butterflies at this season, these eggs being coated with a varnish-like substance, which protects them from the cold and moisture. In colour, while they are small, the little caterpillars greatly resemble the young leaves of the Elm, and so they are not so easily found, while their dumpy aspect, when we do detect them, almost makes us doubt if they are caterpillars at all, and they glide along in slug-fashion, with the head hidden beneath the next segment. They possess, however, the usual "outfit" of legs, but these are inconspicuous. The woodlouse-shaped body has a ridge running down the back, which is brown in the full-grown caterpillar, and edged round with yellow. At that age it is more noticeable among the Elm leaves, though collectors most frequently obtain it by beating the trees into a net. Having ceased to eat, the caterpillar passes a silken band across the body and turns to a chrysalis, having only a repose of about three weeks. I may add that in the August number of the "Entomologist,"

the Rev. J. W. Mills states that he has found this summer a number of *Thecla W. album*, attracted by the flowers of the Lime tree in his garden.

About gardens, even in the vicinity of London, the delicate little creature with a long Latin name and a short English one, best known by the latter—viz., the White Plume (*Pterophorus pentadactylus*), flits about by day and night, looking much like a snowflake in the dusk of evening. The wings in

this, as in the rest of the Plumes, are cut into divisions, the fore wings forming two of these on each side, and the hind wings three, so that there are ten divisions instead of the customary four wings of the moth families. By Mr. Wood this feathery moth is ranked among the useful insects, because the larva feeds on the Nettle. Were that the general fact, it is not sufficiently numerous to make much inroad upon this prolific weed; and though I do not doubt the correctness of



Fig. 39.—CATERPILLARS AND BUTTERFLIES OF *THECLA W. ALBUM*.

the statement that the larvae have been found on the Nettle, I have myself taken them in the act of devouring the common Bindweed of the hedges (*Convolvulus Sepium*), and also occasionally on the garden *Convolvulus*; though, on the other hand, if the insect is not a friend, I will not call it an enemy of the horticulturist. The caterpillar, of course diminutive in size, is prettily marked with green, white, and yellow, and when full-fed it spins upon a leaf a silken coating, and attaches itself thereto to become a chrysalis, in the mode of some of the butterflies. To view the scales or plumes of this moth to advantage we must place it under a moderately strong microscope, when the beautiful feathering of these and their satiny lustre are brought out. It has an odd fashion of resting with extended wings, not folding them, as do most moths in repose. I have not been able to verify the assertion of some authors,

that these moths are called "ghosts" or "spectres" by country folk. What is called the common Plume (*P. pterolactylus*), also shows itself in gardens, with what special intent is not so easy to say, as the food-plant of the larva is the common Thistle, and one can hardly suppose that this little moth is a flower-lover. The wings of this Plume are dull brown, with some grey and red markings. But the handsomest of all the Plumes is the rare Rose Plume (*P. rhododactylus*); not so named because it feeds upon the Rose, but because the wings are suffused with rose colour, varied in the upper wings with white, yellow, and green. The Twenty, or Many-cleft Plume, must be mentioned lastly, as a visitant to outhouses and tool-sheds in gardens, though seldom seen on the wing. Here we have twenty, or, properly speaking, twenty-four plumes, which radiate almost in a semicircle. The species is

not sufficiently abundant to be injurious to the Honeysuckle, upon which the caterpillar and chrysalis have been taken, so that our admiration of it is not checked by any apprehensions. It is curious that in the autumn and winter months this small insect abides unmoved in some resting place it has chosen, keeping closely pressed to the wall until the spring with its genial warmth stirs it up to active life.—J. R. S. C.

THE LARGE VINERY AT LONGLEAT.

In the notes we made of a visit to Longleat, in Wiltshire, twelve months ago, we remarked that the great vinery which has been erected there since Mr. Taylor took the management of the garden was in our opinion the finest in the kingdom. We have never seen anything to compare with it, with the exception of that at Chiswick, which, it must be remembered, was built for a conservatory and not for a vinery. We are

now enabled to give a representation and description of this remarkable structure.

This magnificent vinery (represented in *fig. 40*), is 216 feet long and 30 feet wide in the clear. It is divided into three compartments, the first of which, 56 feet in length, is planted with Black Hamburgh and one plant of Chaptal. The second division, with the exception of one plant of Golden Champion, is entirely devoted to Muscat of Alexandria. The third division has one Trebbiano, one Mrs. Pince, one Strawberry Grape, two Madresfield Court, two Muscat of Alexandria, one Gros Guillaume, ten Lady Downe's, and eighteen Alicante. Madresfield Court is to be removed from this division, not because it is not a good Grape—it is one of the best in existence—but it is not a late-keeping Grape, and ought to be in the Hamburgh house if it cannot have a house to itself.

The Muscats are planted 7 feet apart, and are not kept so closely pinched-in as Vines usually are. The treatment seems

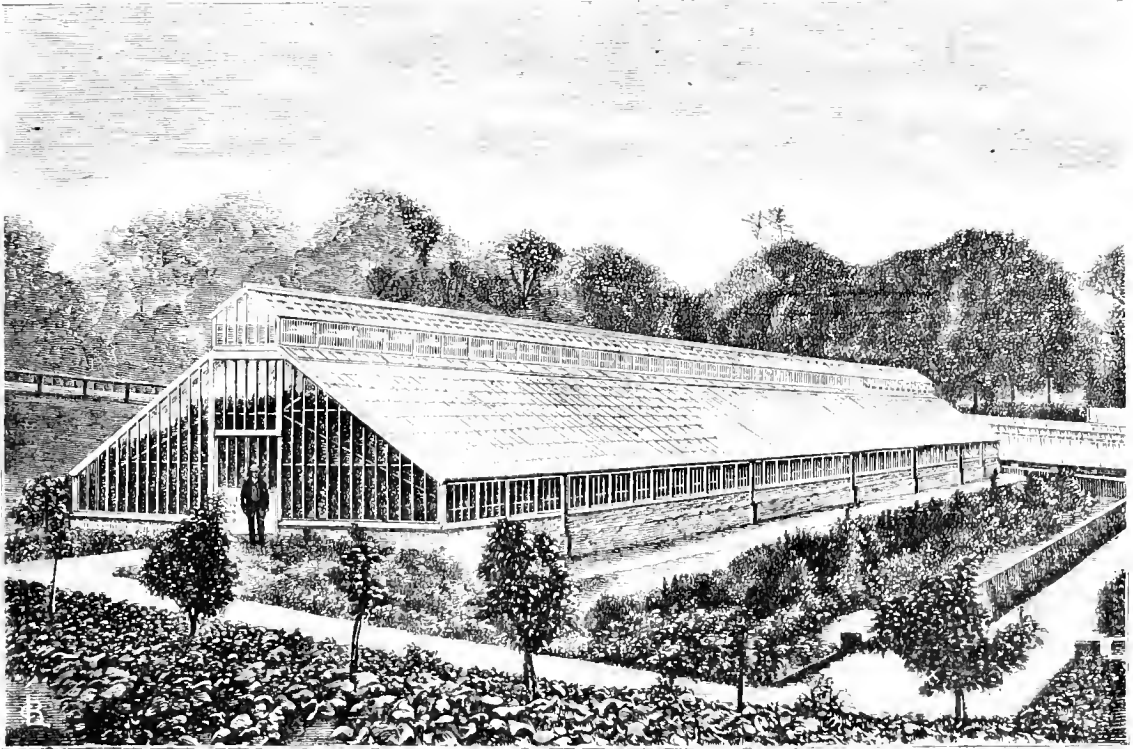


FIG. 40.—THE LARGE VINERY AT LONGLEAT.

thoroughly to agree with them, for it has rarely been our lot to see such a house of Muscats. The plants were struck from eyes in 1870, and were planted in July of the same year; but they look much older, and are carrying a crop of six or seven large bunches each, the berries of which are so closely packed together, that those who consider the Muscat of Alexandria a shy setter might fancy it was another variety. This, however, is not the case. The success is brought about by Mr. Taylor's common-sense way of treating Muscats like other Grapes instead of coddling or roasting them with a high night temperature, 55° being considered quite high enough during the flowering period. The Grapes are now changing colour beautifully, and promise to be all that can be wished for. None of the Vines in this range are to be forced: it is intended merely to supply Grapes from August to April.

The borders were formed in the simplest possible manner, turf being ploughed-up and carted at once, and fitted together in its place like so many bricks, only there was no mortar used; a very slight sprinkling of boiled 1-inch bones, about a hand-ful to a cartload, being all that was mixed with it. The bottom, being a blue clay, was concreted and well drained. The border is at present confined to the inside of the house, and there is likely by present appearances to be sufficient room there for the roots for some years to come, but there is provision made for outside borders when necessary.

There are in each division a tank and pump, into which the rain water is conducted, and there is also provision to let in water from another source when the rain water fails.

The heating (by Messrs. Weeks), is also done in a simple and most effectual manner, there being not a single dip in the whole arrangement; consequently it always works with a comparatively small amount of fuel, and there is never any difficulty about the circulation.

NOTES AND GLEANINGS.

AN old and valued friend writes from Toronto:—"Last winter in CANADA was on the whole a moderate one, but with some excessively severe weather occasionally. The spring was very backward—two weeks later than usual—and the summer has been cool, with frequent heavy thunderstorms. The fruit crop will be good in some parts, and very indifferent in others. Strawberries are at the height of the season now (July 13), but very acid, and lacking flavour; Cherries badly cracked on account of the rains; Currants just turning colour; Gooseberries *nil*. The Colorado Potato beetle has been very destructive, taking off whole fields, and utterly destroying the crop."

— At the LINCOLNSHIRE AGRICULTURAL SHOW, among the most interesting objects, were the seed stands exhibited for

competition by Messrs. James Carter & Co., of London, and Messrs. Charles Sharpe & Co., of Sleaford. The Judges awarded a first prize to Messrs. Carter & Co., and a second prize to Messrs. Sharpe & Co.

A HINT.

I AM a young gardener though an old man. I have been trying the last few years to learn gardening from books, and it is a failure. One reason is, every man writes down only his successes, which of course come out from the adaptation of his system to the circumstances of his garden. Under different circumstances the system, though correctly followed, fails. Persons situated like myself want a chronicle of failures as well as of successes, and, above all, the reason why. In my own case I think the reason why I fail is that my garden is so early. A warm south aspect on the slope of a hill brings fruit trees into bloom, and makes vegetables of all kinds two or three weeks earlier than with my neighbours, and as a result the late spring frosts destroy all the promise that was displayed. How can I retard the blooming of nearly three hundred trees? Is it to be done by any method of pruning? I have my place beautiful with shrubs and flowers, and the kitchen garden is fairly productive, but I cannot manage to get any outdoor fruit except against a wall. I have put in bushes, pyramids, and cordons, and at every purchase the nurseryman has assured me the trees would bring fruit enough the first year to pay the cost.

I do not know why I should bother you with this, but as I was writing you it seemed to come from my pen of itself. I daresay another gardener would succeed better, but my man suits me in so many ways I must keep him, even though I lose my fruit by it. Still, if you could give a hint how to keep back by pruning or in any other way the blooming of my trees, I think I should stand a better chance of ripening some fruit. —J. W. PEWTRESS.

MR. T. APPLEBY.

ON reading your account of the distressing circumstances under which our valued old friend and instructor Mr. Appleby is now placed, I forwarded at once, by your advice then expressed, a small contribution to his address.

If a tithe of your readers who year after year have profited by the practical cool horticultural wisdom of poor Appleby would do the same, an amount might be contributed more than necessary to stave off the cruel distress of the present moment until his expected relief becomes available.

Mr. Appleby was, I believe, one of the first to encourage and foster a higher moral tone amongst the young men placed under or with him by his example, conversation, and instruction. Such things are now happily more common than they were; but, doubtless, this consideration alone may influence many a kind heart in sending the sovereign or half-sovereign, or the humbler half-crown, by both high and low, rich or poor, of his old friends, readers, and approvers.

In cases like the present, *bis dat qui cito dat*. Send off, O brother gardeners, your mite at once. —R. T. C.

DOINGS OF THE LAST AND PRESENT WEEKS.

HARDY FRUIT GARDEN.

WE have just finished summer-pruning the pyramid and dwarf fruit trees. Apple, Pear, and Cherry trees are exceedingly healthy, and the crops of all three are fully up to the average. As much cannot be said for the Plums; the trees are bearing a miserable crop, and have likewise suffered severely from the attacks of aphids, and no variety seems to have escaped. Some of the earliest Apples and Pears have been gathered. Early Margaret, Irish Peach, and Red Astrachan are the earliest. The last-named is a fine-looking Apple, and would be selected as the best by outward appearance; it is, however, somewhat too acid to be classed as a dessert Apple. Of Pears, Doyenné d'Été and Jargonelle out of doors are ready for use. In the orchard house Beurré Giffard has furnished some very fine fruit. This is a most excellent summer Pear, ripening with Jargonelle or slightly before that variety. We make either two or three gatherings of Pears, which considerably prolongs the season of them. Were the fruit all to be picked at once, such varieties as are named above would not be in use more than a week or ten days.

Planted out the young Strawberry plants which had been detached from the parents a week before. When it is possible to do so, the ground that is to receive the plants is not cropped previously—no that it would be much harm in good deep loam,

but in our dry gravelly soil a crop of early Potatoes or early Peas thoroughly abstracts the moisture from the ground, and unless we trench and manure heavily after the crops are taken off, the Strawberry plants do not succeed to our satisfaction. On the other hand, when the ground has lain fallow since the spring months, it is in the very best condition to receive the plants, and success is then a positive certainty. As usual, some of the new sorts have been tried, but there is nothing which comes up to our old standard varieties in the primary quality, flavour. Auguste Nicaise, a seedling raised by Dr. Nicaise, is a very free-bearing sort; the fruit, very large and even in size, is the best that has been tried this year. Sir Joseph Paxton has been exceedingly fine this season, but unfortunately it is one that will not succeed in our soil, and being very subject to mildew was discarded. At the great Exhibition held in Mr. Quilter's grounds, Birmingham, all the prizes were awarded to it; the dish that was first being fine indeed. President and Keens' Seedling are the sorts that succeed best with us in the dark-coloured section. Again, in the light-coloured Pine-flavoured section, one of the very best varieties, Dr. Hogg, also failed to maintain its character, though those who have suitable soil to grow it in place it at the head of the list. British Queen, considered by some more difficult to grow than the other, invariably gives us a good crop of fine fruit. The plants are put out 2 feet apart, except the small-growing sorts, for which 20 inches each way is sufficient. A small portion of rich loam is placed round the roots of each plant, making it quite firm, and leaving a slight depression around each plant for the purpose of retaining the water if it is necessary to apply it artificially. Red spider had also attacked the leaves, to destroy which they were dipped in a pail of water in which soft soap and tobacco had been dissolved. If Broccoli would succeed with us, the ground where the Strawberry plants had grown would be planted with it, and as this vegetable likes compact soil to root into, no digging is necessary; the plants may be let into the ground with a crowbar.

FRUIT AND FORCING HOUSES.

Vineries.—It matters but little whether the season is wet or dry, hot or cold, in our dry soil red spider will surely appear in the vineries, and unless preventive measures are promptly applied the leaves are destroyed before they have performed their work. How to destroy the red spider without injuring the leaves or disfiguring the fruit, is a question of considerable importance. Syringing the leaves will destroy it, if the water is applied with force and periodically. But then what about the fruit? The beautiful bloom, which is the principal point in well-grown Grapes, is quite destroyed, and the fruit is not fit to be seen on an exhibition table, or on any other. Sulphur applied to the hot-water pipes will destroy the red spider; but here again there is considerable risk of the fruit becoming rusty, for unless the fumes of the sulphur are moderately strong the pest will not be killed. Another plan we have tried, and when it is done by a careful person it is the most effective for the destruction of the spider, and for the preservation of the Grapes. It must also be practised on the first appearance of red spider. All leaves attacked are sponged over with water in which soft soap has been dissolved, and if the insect has spread pretty well over the house there is much difficulty in destroying it; also keep from rubbing or letting water drop on the bunches and so disfiguring them. Lateral growths have been freely produced, and we like to see these come pretty strong, as it is a sure sign that the Vines are not overcropped. Of course they are removed as soon as convenient. We are fortunately free from one plague this season, and that not a small one—viz., wasps and bluebottle flies. Various methods have been tried to destroy them, and also to keep them from the bunches. The bunches have been tied-up in paper and medicated bags; but by far the best way, indeed there is none other satisfactory, is to keep the flies out of the house, and this can be easily done by putting gauze over the ventilators. Placing the bunches in bags effectually spoils their appearance.

PLANT STOVE.

Many of the occupants of this structure are much benefited if they are removed to a cool house or even out of doors during the months of July and August. If *Ixoras* and *Gardenias* are infested with mealy bug place them in the greenhouse, where, if they are thoroughly syringed twice daily, this pest will be eradicated, and the plants will flower much more freely the following season when they are allowed to ripen their wood in an airy house.

Bougainvillea glabra is classed as a stove climber, but when well established the plants should be placed out of doors during the months indicated, and be wintered in the greenhouse. It may be said that a plant that will bear such treatment cannot be considered a stove plant at all; indeed, the only claim that it has to be classed as such is, that the plant is improved by being placed in heat in the early spring months. But many other plants that are usually in the catalogues as greenhouse subjects are better with the same treatment. *Statice Hoffordii* is a very fine greenhouse plant, perhaps one of the best of the *Statice* family, but we have not been able to grow it well with-

out heat in the spring months. *Pleroma elegans* requires the same treatment to cause it to grow and flower well. Removing some of the stove plants will allow those that remain to have more space to develop themselves, although at no time should stove plants be crowded.

Climbers have made free growth, and it has been necessary to thin-out the wood freely. It is a great mistake to allow climbing plants to overshadow the house, as those plants underneath that require light and air are much injured by them. As the days are becoming shorter we give more air, and do not allow the shading to be down longer than it is absolutely necessary.

FLOWER GARDEN.

Carnations and Picotees have made very strong grass this year, and before next week's "Doings" appear most of them will be layered. All the choice varieties are grown in pots. In this way we have perfect control over the roots, and it is also an advantage to be able to carry the plants into the greenhouse or conservatory when they are in flower; even if they are planted-out the flowers must be protected from the rains. Of Golden Tricolor Pelargoniums that are scarce, and of which it is intended to increase the stock, cuttings have been put in. All the more tender sorts should be propagated as soon as possible; better to have one good well-established plant than three or four that have been struck late and are with difficulty kept over the winter.—J. DOUGLAS.

PROVINCIAL HORTICULTURAL EXHIBITIONS.

[SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held. Although we cannot report them fully, we shall readily note anything especially excellent, and we wish for information on such specialities to be sent to us.]

AUGUST.		AUGUST.	
Aldborough and Broughbridge..	7	Keighley	21 and 22
Horningslow	8	Todmorden	22
Clay Cross	11	Shotley Bridge	22
Hartlepool	11	Wakefield	22
Meldrum	11	Warkworth	24
Hillmorton (Rugby)	11	Wotton-under-Edge	25
Weston-super-Mare	11	Banbury	25
Ellon	12	Dunley (Worcestershire) 25, 26, and	27
Royal Hort. Society of Ireland....	12	St. Andrews	26
Taunton Deane	13	Sherborne	26
Malmesbury	13	Kempsey	27
Birmingham	14 and 15	Cirencester	27
Ryhope	19	Tynemouth and S. Northumber-	
Keovil, Wils.	19	land	20 and 27
Eckington	19	Skircoat (Yorkshire)	28
Cardiff (Glamorganshire)	19	Sandy	28
Deal and Walmer	19	Perth	28
Haverfordwest	20	Chaslev	28
Reading	20	Falkirk	28
Belfast	20 and 21	Bishop Auckland	28
Eastbourne	21	Kilman, Strone, and Biamore	29

TO CORRESPONDENTS.

*. It is particularly requested that no communication be addressed *privately* to either of the Editors of this Journal. All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only.

We also request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

BOOKS (*J. Tine*).—We never heard of a work on general gardening written by a Mr. Mitchell. You must make a mistake in the name.

ROSES (*W. A. W.*).—The only way to get a list of all the Roses extant would be to procure the catalogues of all the Rose-growers, which they would willingly supply you with.

FRUITS FOR LEEDS (*A Subscriber*).—You could not have made a better selection, and they will all succeed in the situations you have indicated.

SEEDLING RASPBERRY (*J. D., Knaitsford*).—The fruit was so bruised in the carriage that we could form no opinion of it.

WHITE LILY (*Mrs. Lakenham*).—The Lily you sent is the old white Lily, in which the petals, and, indeed, all the parts of the inflorescence, are converted into white leaves.

AZALEAS AFTER THE BUDS ARE SET (*J. B. B.*).—The plants being now plunged in the open ground, ought to remain there until the end of September, and should then be moved to a light airy position in a house from which frost is excluded. The situation out of doors ought to be shaded from sun during the hottest part of the day, and the pots set on, not plunged, or only partially so, in coal ashes.

ROSES TO FLOWER IN WINTER (*Idem*).—To flower in winter prune the plants at once, and repot, but without disturbing the ball—merely removing

any loose soil. Place in an open sunny position, keeping well supplied with water, but not making the soil sodden, and water overhead morning and evening. This will be sufficient until the plants have started afresh; but water should be given if necessary to keep the soil in a moist healthy state. At the end of September the plants should be placed in a cool airy house having abundant ventilation, and be kept from frost. They may give you some flowers late in autumn and early in winter. The Tea-scented and Hybrid Perpetuals are best, but the Noisette and Bourbois classes are very useful.

DAVALIA CANARIENSIS NOT GROWING (*M. D.*).—We should at once repot the plant, removing all the rhizomes which are dry and sapless, keeping the centre of the plant rather high, and the rhizomes on the surface. Keep moderately watered, and moist overhead until autumn; then keep dry, but only so much so as not to allow of the rhizomes shrivelling. It will succeed in a greenhouse from which frost is excluded. Safty peat three parts, fibrous yellow loam one part, half a part each crocks (broken pots) and silver sand, with good drainage, will grow it well. We think the Lycopod sent is *Selaginella Lyallii*.

POLYPODIUM (DRYARIA) PUSTULATUM PROPAGATION (*M. P.*).—The above is the name of the Fern of which you sent us a frond. It is most generally known as *Drynaria*, but in some collections it is named *Pleopeltis pustulata* or *Billardieri*. Propagation is effected by taking off the creeping stems with a portion of the roots, and potting them singly in pots that will hold the rooted part, the short and branched stems being best, not more than half-covering the stems, and securing them in position with a peg or pegs. Keep moist and shaded it will soon make fresh roots, and begin to grow freely. It is best to take the divisions in spring just before or when the plants are commencing to grow. It may, however, be done now.

HOT-WATER BOILER (*Ledbury*).—There is such a great variety of boilers with but slight differences that we could not justifiably recommend one in preference to another; besides, as a rule, we do not recommend dealers. What you require may be gleaned from our advertising columns. Write to some maker stating the piping required to be heated, and ask for prices. Only a small boiler will be required, but it is well to have one that in power is above rather than beneath that needed.

HEATING CONSERVATORY (*A. F. IS.*).—You will need two rows—namely, flow and return, 3-inch pipes, along the front and both ends of your house. The most economical mode of heating would be from a boiler at the back of the kitchen fire, but so arranged that the hot water could be turned off or on as required, the water circulating to a cistern conveniently situated, and answering for baths, &c.; but care must be taken that when hot water is required for the conservatory, it can be had by the stoppage of the circulation in the cistern. You will need valves in the conservatory as well as in the flow and return from the cistern. Be careful not to have both the conservatory and cistern valves closed at the same time, also to have a proper supply cistern. The same measures are necessary to prevent an explosion. We should not think of having a boiler purposely for this house when you have the means of heating from the kitchen range.

HEATING (*Subscriber*).—Opinion differs as to the merits of cast or wrought iron for boilers. For general purposes cast iron is probably the better of the two. The valves should be within each house, and in the 2-inch pipes rather than the 4-inch, as the cost would be considerably less for the smaller size. Two-inch pipes will answer for the mains, and will give a more speedy circulation than were they of larger diameter, but we presume they originate from pipes of larger diameter, the flow and return in connection with the boiler being more than 2 inches. Instead of three rows of 4-inch pipes being better than two for a propagating pit, we should think four would not be too many, as two will be required for bottom heat, and yet two may be enough.

LETTUCES FOR WINTERING IN FRAMES (*M. A. H. E. L.*).—The best two Cabbage kinds are *Commodore Nutt* and *Lee's Immense Hardy Green* or *All the Year Round*; and *Cos*, *Hicks' Winter White*, and *Bath Cos Sugarloaf*. The seed should be sown in the second or third week of August, and the young plants transplanted under frames in October. We advise you to cover the surface, especially about the plants, with charcoal.

GERANIUMS FOR EARLY FLOWERING—STOPPING FUCHSIAS (*Idem*).—We presume the plants are of the Show, Spotted, and Fancy kinds, not of the Zonal or Nosegay sections. The former should be cut down now, each shoot to within two or three eyes of its base, and should be kept in a cool airy house until they break; when they have shoots about an inch long they should be turned out of the pots, the soil removed, and be returned to the same size of pot. Place them in a cold frame, and in September remove them to a light airy situation, in a house from which frost is excluded. For early flowering the plants should not be stopped, but be shifted into the blooming pots in November or early in December, and the shoots regulated as they advance. In February the temperature may be raised to 45° or 50° by fire heat, in March to 55°, and they will flower in April. Fuchsias ought not to be stopped later than six weeks before the time at which they are required to flower.

APHIDS ON CAULIFLOWERS (*W. K. R.*).—The aphid would be best destroyed by tobacco water, a gallon of tobacco juice diluted in five gallons of water, and applied to the plants overhead with a rose watering pot. Dusting the plants with quicklime early in the morning or late in the evening is very useful, repeating the dusting every second or third day; also a solution of soft soap, 2 ozs. to the gallon of water, applied with a rose watering pot at a temperature of 100°.

ROSE BUDS SCORCHED—PROPAGATING WALLFLOWERS, SWEET WILLIAMS, AND VIOLAS (*Nannie*).—The only way to prevent the scorching of the Rose buds will be to slightly shade them; a little hay or a branch of a tree tied on would answer perfectly. Your query respecting the Vines was answered the week before last; we have no recollection of circumstances prompting the advice. Write to us again with particulars. Wallflowers of all but the double kinds are best raised from seed, the double ones of particular kinds from cuttings. They do best raised annually, the old plants being rooted-out after flowering, or you may keep them for a second year, the parts which have flowered being cut away as well as any straggling growths. Sweet Williams last for several years if trimmed after flowering, and the flowering-stems cut away. The finest flowers are produced on young plants raised from seed annually. The same remarks apply to Violas. They are best propagated by cuttings every year, though they will endure for two or three years. They should be trimmed-in and top-dressed early in autumn.

PLANTS FOR GREENHOUSE (*Novice*).—Unless your house were heated it would not answer for plants in winter. We should advise you to have a stove boiler within the house, with a flow and return 2-inch pipe along the front, which will be sufficient to keep out frost. In this case your house will answer for Camellias, Epacris, Ericas, Acacias, Azaleas, Coronilla, Cytisus, which, with

Primulas, Cyclamens, Cinerarias, and a few bulbs, as Hyacinths, Narcissus, Tulips, and a few plants of *Spirea japonica*, *Deutzia gracilis*, and *Dialytra spectabilis*, would make your house interesting and gay during the winter and spring months. For the outside flower-pot you would see what Mr. Luckhurst advised in late numbers of this Journal, from which select such as are likely to meet your requirements.

MEN REQUIRED FOR GARDEN AND FARM (*A Thirteen-years Subscriber*).—For the kitchen garden you will require two men, and for the lawn, shrubberies, &c., three, for the farm grass land one man, dependant upon what is kept in the way of stock. If you have dairy cows, a man may be wanted for them, and poultry, &c., but if sheep and fat cattle, one man will do. It is the same with the garden and grounds. If there are many walks, an extensive carriage drive, and much mowing by hand, the men named may be under what the work demands; but we think your requirements would be met by a head gardener having a knowledge of grass land and stock, two under gardeners, an apprentice or boy, five labourers, and a shepherd. Extra help would, of course, be needed in hay time, &c.

CONSTRUCTING PIT FOR CUCUMBERS AND STOVE PLANTS (*H. P.*).—The house would be better 2 feet wider and higher, or 9 feet, which will give you more head room, the path being at the back, though we should have a shelf or bed 2 feet wide at the back, either of which would be useful, and a bed in front for the Cucumber plants. It should be 4 feet wide, and have two rows of hot-water pipes for bottom heat. They may either be in a chamber covered with flags, or be surrounded and covered with drainage rubble, and for top heat four rows of piping will be required. They may be 3-inch pipes. Bottom heat may be dispensed with for the stove division, but if you should wish to grow Melons, or change the division for Cucumber-growing, the border with bottom heat would be desirable. The incline of the roof should be 1 foot to 3 feet of width, which will give you a back wall of 9 feet, and front wall of 6 feet, 2 feet of it being sashed.

SPRING FLOWER GARDEN (*A Beginner*).—The design will be much improved by reducing the circles in the chain of outer beds to a uniform diameter of 5 feet, and by shortening the long beds 6 inches at each end, so as to give an additional foot of turf between the beds. The long beds ought also to be reduced from 6 to 5 feet in width, which will afford ample breadth of colour for so small a garden; and if the foot of space taken from the beds is added to the turf outside the design, it will materially contribute to the general effect, and more particularly improve the appearance of the sides skirted by the walks. A fine cone-shaped specimen 3 or 4 feet high of *Perceyia angustifolia* or *Cotoneaster Simmondsii* will answer admirably for the centre. The *Cotoneaster*, from the bold and striking effect of its profusion of large handsome scarlet berries, is perhaps preferable. Paper White is the best Narcissus to dot the bed of *Saponaria calabrica* with. Imperial Blue Pansy is the best of its colour; it is a deep rich blue. *Cerastium tomentosum* is certainly preferable to the *Antennaria* for carpet bedding. *Anemone coronaria*, or Poppy *Anemone*, is the best scarlet *Anemone*. Canary Bird is a fine yellow Tulip, but we would discard it from the beds of *Anemone*, and the crimson *Rox Rubrum* from the corner circles. Nothing can be more chaste than the effect of a bed of the delicate yellow *Cheiranthus Marshalli* edged with *Santolina incana*. The contrast of these and the *Anemone* beds with your beautiful panel beds will be excellent, and far more effective without the Tulips than with them.

DOUBLE BALSAMS (*Balsam*).—We are not aware that old seed produces a greater proportion of double flowers than new. If you get a good strain nearly every plant will produce double flowers, whether the seed be old or new.

FUMIGATING GRAPES (*An Old Subscriber*).—It will not hurt the Grapes to fumigate them to destroy thrips.

GRAPES DISEASED (*D. T.*).—Your Grapes have got the mildew. Dust them with flowers of sulphur.

DESTROYING WASPS (*J. J. Jones*).—You will find instructions in this day's number of the Journal.

SOWING POLYANTHUS (*J. P.*).—There is no better time to sow *Polyanthus* seed than now. Sow it in pans, and place it in a cool frame or spent Cucumber frame, and when the plants are fit to handle prick them out, and you will have strong plants before winter.

BORDER PLANTS FOR AUTUMN AND WINTER (*Anna Liffey*).—The two circular beds on turf would look well with a patch of *Erica carnea* in the centre, enclosed by three rings of grey, yellow, and deep crimson—*Santolina incana* next the *Erica*, then Golden-Feather *Pyrethrum*, with *Ajuga reptans* outside. In favourable seasons *Erica carnea* comes into flower soon after Christmas, and nothing can be brighter at that season than its dense cushions of fine pink. In planting the borders we would avoid straight lines or any geometrical pattern, striving rather to produce a natural effect that is certain to prove most interesting and pleasing, with dwarf shrubs of an evergreen and variegated character. A selection once made would last a lifetime with ordinary care, and by occasional additions of new introductions a rich collection might be formed of the very best of all hardy winter plants. We append a short list. *Erica mediterranea*, *Erica carnea*, *Ledum buxifolium*, *L. latifolium* compactum, *Rhododendron ferrugineum*, *Kalmia angustifolia*, *K. latifolia*, *K. nana*, *K. rosea*, *K. rubra*, *Andromeda floribunda*, *A. Catesbeii*, *A. polifolia*, *Azalea amona*, *Yucca recurva*, *Yucca gloriosa*, *Phylica aurea*, *Santolina Chamaecyparissus*, *Mahonia Aquifolium*, *Skimmia japonica*, *Osmunda variegata*, *Ilex Aquifolium*, *I. torulosa*, *I. Golden Queen*, *Laurustinus*, *Pernettya mucronata*, *Pernettya angustifolia*, *Cotoneaster microphylla*, *C. Simmondsii*, *Hedera albo-marginata*, *H. La Reine*, *H. aureo-maculata*, *H. chrysocarpa*, *H. palmata*, *H. Roemeriana*, *Juniperus tamariscifolia*, *Retinospora leptoclada*, *Retinospora coccinea*.

PREVENTING MOSS ON FLOOR OF GREENHOUSE (*White Rose*).—Dissolve 1 lb. of powdered arsenic in three gallons of cold water, boil and keep stirring; then add seven gallons of cold water and 2 lbs. crushed soda. Stir the whole well whilst boiling, and apply hot to the "quarries" with a rose watering-pot. It will kill the whole of the moss, but must not be allowed to run off on the borders in which the roots of plants may be. It may be kept from these by an old cloth laid on the sides of the pathway; afterwards burn the cloth. It will keep the floor free for a long time. Care must be taken in the use of this remedy, as it is poison.

DRACENAS FOR GREENHOUSE (*Idem*).—Some species of this highly-decorative genus would succeed. They are *D. australis*, *D. erythrorachis*, *D. fragrantissima*, *D. indivisa*, *D. nutans*, and *D. Veitchii*. *D. terminalis* and *D. rubra* would also probably succeed, if the plants had no more water than sufficient to keep them fresh, and were placed in the warmest part of the house. They may be grown from seed, but we believe it is not to be had of seedsmen

in this country. They would make nice plants in two years. The flowers are not remarkable; the plants are grown for the foliage.

POTATOES MAKING NEW GROWTH (*Old Subscriber*).—Are they quite as bad as you say? Have "all" made fresh growths? If so, better dig them up. Potatoes make a second growth when heavy rain comes after a period of drought. They have done so in our own garden this year. Those intended for planting are dug up, but the portion required in the kitchen has been allowed to remain, as only about one-third of the tubers have started to grow.

TREES FOR AN EXPOSED SITUATION AND CHALKY SOIL (*A Subscriber*).—If you contemplate the formation of a screen or protecting belt there is no better evergreen than the robust *Pinus austriaca* for such a position. Of others of this class the best are *Picea pectinata*, *Picea Pinaster*, *Pinus Cembra*, *Thuja Warreana*, with Scotch Fir, English Yew, Holly, and Evergreen Oak; and of deciduous trees take the Larch, Pseudo-Acacia, Elm, Maple, Spanish Chestnut, Turkey Oak, Common and Fern-leaved Beech, and the Birch.

STORING FILBERTS (*Chessington*).—See that the husks are thoroughly dry at the base before storing. A good plan is to place them in glazed jars, and paste paper or other material closely over the tops, keeping them where it is not damp, and where the temperature is tolerably equable—a dry cellar for instance. Or the jars containing them may be covered securely, and buried in a dry situation.

LEAF MOLD (*Beeps*).—The leaf mould you have in a cask we should turn out in a dry open place, and put in layers 2 inches deep, making each layer quite white with quicklime. Let the whole lie about ten days, then turn over, and blacken each layer with soot. After this turn over daily for a fortnight, and your leaf soil will be available for potting purposes.

SUPPORTING FRUIT-TREE BRANCHES (*Idem*).—There is no better method than a forked branch of a tree as a prop, placing a piece of matting in the fork or around the branch of the tree, which will keep it from rubbing with wind. We have sometimes secured the branches with soft rope stretched from the higher to the lower branches, and across, so as to form a balance. This has a much neater appearance, and answers well when the trees have strong central upper branches. Props are certainly not ornamental, but any temporary ungainliness can be tolerated for the sake of utility.

STOVE BOILER INSIDE GREENHOUSE (*J. H. A.*).—There is no fear of a stove boiler injuring the plants by consuming the air, as the air derived from the house for combustion must be replaced by fresh from the external air through the cracks, &c., of the door of the house and laps of the glass. The stove should have a smoke-funnel or chimney taken outside clear of the house to carry off the smoke and vapour resulting from combustion, and have attached to it a sufficient quantity of hot-water piping to exclude frost in the severest weather.

PLANTS NOT FLOWERING IN CONSERVATORY (*W. T. F. M. J.*).—From the fact of Orchids and Ferns doing well, it is patent your house is too dark for flowering plants, due, probably, to position, to the shade of adjoining objects, to the opaque nature of the glass, or to the work; or it may be artificially shaded to meet the requirements of the Orchids and Ferns. Which of these we are not able to say is the cause, but it is evident the flowering plants require more light, and probably air.

CRASSULAS AFTER FLOWERING (*D. D.*).—We conclude that they are Kalosanthes coccinea or allied kinds. Cut down each shoot to within an inch of its base, keeping the plants in a light airy position, and watering carefully. Disbud to two or three shoots on each branch. Repot in the same size of pot when the shoots are well broken, reducing the ball by picking the soil away from the sides with a pointed piece of wood. Winter in a light airy position in the greenhouse, watering moderately. Shift in February into pots of from 2 to 4 inches larger diameter, increasing the supply of water with the growth, or from April up to the middle of June, then place out of doors on slates in front of a south wall or fence, watering as required, and remove to the greenhouse in September. They will flower the following season, staking the shoots or tying them down or out as they advance. The plants will in this case only flower every alternate year. They will flower every year if you only cut back now the shoots that have flowered, leaving those not flowering this year for next; but in this way the plants are not nearly so finely formed as by the other process.

NAME OF FRUIT (*W. F.*).—The Apple is Sheep's Snout.

NAMES OF PLANTS (*J. E. S.*).—*Veronica spicata*. (*H. Pollard*).—1, *Lapageria rosea*; 2, *Polygala grandiflora*; 3, apparently a *Crassula*, but a wretched specimen; 4, a *Begonia* of some kind; 5, *Mirabilis fasciata*. It is next to impossible to name plants from such specimens as these. (*Chas. Clay, M.D.*).—If you will send us a piece of the plant we will endeavour to name it, but we cannot make anything of it by the description you give. (*R. Maitland*).—It is *Selaginella leptophylla*, called the "Resurrection Plant" from the property you describe of opening and closing after it is withered. It does not require any special treatment. (*Flora*).—*Vicia Cracca*. (*Bristolian*).—1, *Calanthe Bractei*; 2, *Cestropis fraphis*; 3, *Polypodium cambricum*; 4, 5, 6, are probably all three varieties of *Selaginella Martensii*, but specimens are all without fructification, so we cannot be certain. (*Alfred W. G. P.*).—*Sedum spurium*. (*Mrs. H. Jones*).—1, *Crassula (Rochea) coccinea*; 2, *Silene Armeria*; 3, *Verbena bonariensis*; 4, *Santolina incana*. (*G. S.*).—*Raphanus Rhipsanthemum*. (*Idem*).—6, *Gentiana cruciata*. All the others are unnameable, being without flowers. (*Mrs. W.*).—*Ischidius linearis*, *Asclepias curassavica*. (*J. N.*). *Nicotiana physaloides*, *L.*

POULTRY, BEE, AND PIGEON CHRONICLE.

MOULTING.

The following notes will answer the queries of "E. H. R."—The natural time for fowls to moult is when the principal work of the year is done, and when the thin worn-out plumage that has been more than sufficient during the summer months must give place to new and better clothing for the winter. It is a great strain on the constitution of a fowl, and could not be properly carried on if any other effort were required at the same time. When, then, the natural season for laying, sitting, and rearing a brood is over, the whole remaining energies of the bird are thrown into the formation of a new plumage. The

older the bird gets the longer the process lasts, but it generally comes to a satisfactory conclusion, except where heating food and spiced condiments are used. The food during the moulting time should be nourishing and cooling. Ground oats slaked with milk are very good; lettuces are excellent; barleymeal, sopped bread, groats from gruel, are all good. All stimulants are bad. A cool body is essential to the formation of healthy feathers. The stub that is to form the feather must have a cool and moist bed in which to grow. Such food as we have named will supply it. Stimulants and heating food dry up all the nutriment of the embryo, and it dies away. Inexperienced people often advise hempseed. Nothing can be worse; nothing is more heating. The effect of feeding a moulting bird on hempseed entirely, and then continuing it as the staple food, is to turn the plumage nearly black. Where birds are fed on it when the plumage should be growing, the feathers die before they attain maturity. Blackened stubs take the place of a bright and healthy plumage, itching follows, and the bird, to allay it, positively eats away the flesh. This is more especially the case with the flight feathers of the wing. Sugar has the same effect on Parrots.

Some breeds moult more easily than others. We know no bird that moults more easily than a Dorking; none moult with so much difficulty as the Spanish. Neither Houdans nor Crève-Cœurs are clever moulters, and we are almost disposed to say that non-sitters are bad moulters.

BUCKINGHAM POULTRY SHOW.

(From a Correspondent.)

This was held in connection with the forty-eighth annual horticultural exhibition on Tuesday July 28th, and was a great success. It is, we understand, to be continued annually, but with some modifications, for however successful any show may be, it is rare indeed that some improvements cannot be suggested for the future. One of the principal we believe will be to throw open the competition, and increase the prizes, so as to have separate classes for chickens; for on this occasion adult and young birds competed together, and in some instances the latter appeared to look rather disdainfully on their seniors in their now tattered garb. Perhaps in no instance were the effects of exhibition more apparent than in a good pen of Dorkings exhibited by the Rev. E. Bartrum, where one hen appeared to be so much beaten that she crouched in one corner of the pen, implying as plainly as actions could, "Give me rest time; I change my dress, and I shall not then be ashamed to face the public again."

The *Game* classes contained some very good birds, but many of their owners appear to want a model for dubbing from the yards of such exhibitors as Fletcher, Matthews, &c. There were some very promising chickens in these classes. Black *Spanish* were few in number, but good in quality. *Cochins* were very good. Especially promising was a pen of Buff chickens shown by Mr. J. K. Fowler, but they require a few weeks' more enjoyment on their runs ere they do battle with their elders. *Bantams* were all in one class, but are to be divided for the future. The Any variety class contained a good pen of Minorcas, also Crève-Cœurs and Houdans.

Turkeys were but poorly represented. This we were surprised at, as we know many good birds are reared in Buckinghamshire and the adjoining counties, but the *Ducks* and *Geese* made up both in quantity and quality for their neighbours' shortcomings.

We cannot close these few remarks without mentioning for the satisfaction of absent exhibitors, that we never saw a better working Honorary Secretary and Committee, who took the entire charge of the specimens committed to their care, ministered to their wants, and stationed themselves at various points, so that the whole Exhibition was under their eyes, thereby saving many birds that large share of unlucky pokes with sticks and even umbrellas from visitors that has become too prevalent to be pleasant to either the birds or their owners. Turner's pens were used, but as we have before remarked, they would be much better if he would strain a piece of calico or canvas along the backs; it would be lighter carriage, and not cost much. With the open wire backs, especially the centre rows, where they stand back to back, some such contrivance would be most beneficial; birds would then face the public, instead of as now continually trying to reach their neighbours. The tent was crowded with visitors throughout the day, and all the specimens were fed and repacked the same evening for the return journey.

OPEN CLASSES.

DORKINGS.—2, Rev. E. Bartrum, Berkhamstead; J. Rodwell, Maidsmoreton. **GAME.**—1, S. Field, Ambrosden, Bicester; 2, J. Rodwell. **SPANISH.**—Black.—1, E. Winwood, Worcester. 2, W. Nottage, Northampton. **BRAHMAS.**—1, H. Wyman, Peterborough. 2, A. F. Faulkner, Thrapstone.

OPEN ONLY TO MEMBERS

DORKINGS.—1, T. Gough, Buckingham. 2, J. Terry, Buckingham. **COCK.**—1, G. M. Morecraft, Winslow. **COCHINS.**—1, J. Rodwell. 2, A. F. Faulkner. **HE.** J. K. Fowler, Aylesbury. **COCK.**—1, J. K. Fowler. **HE.** J. Gurney, Winslow.

GAME.—1, S. Field. 2, A. C. Rogers, Buckingham. **C.** J. Salmons, Maidsmoreton; J. Bennett, Stowe. **COCK.**—1 and **HE.** A. C. Swain, Radcliffe. **SPANISH.**—1, F. Coates, Thornborough. 2, W. White, Buckingham. **HAMBURGHS.**—Gold or Silver-pencilled.—1, A. F. Faulkner. 2, Rev. A. G. Hilton, Westbury. **HE.** T. C. Hudson, Buckingham. **C.** J. Gurney, Winslow. **HAMBURGHS.**—Gold or Silver-pencilled.—1, J. Gurney. **BRAMA FOOTRA.**—1, J. Gurney. 2, J. Terry. **HE.** J. K. Fowler, Aylesbury. **COCK.**—1, J. Rodwell. 2, J. Gurney. **BANTAMS.**—1, T. Bradbury, Buckingham. 2, J. Gurney. **C.** A. F. Faulkner. **ANY OTHER VARIETY.**—1, J. Gurney (Minorca). 2, J. K. Fowler (Silkies or French). 3, J. K. Tibbets, Buckingham (Houdans). **HE.** J. Steeden, Tingewick. **FAVORABLE.**—1, J. Bennett. 2, E. Euerston, Buckingham. 3, J. Treadwell, Radcliffe.

GESE.—1, J. K. Fowler. 2, Mrs. M. A. Osborn, Maidsmoreton. **HE.** J. Treadwell, Radcliffe.

DUCKS.—*Lyonsbury*—1 and 2, J. K. Fowler. **HE.** J. Rodwell. **C.** G. Davies, Buckingham. *Roan*.—1 and 2, J. K. Fowler. **HE.** T. Attwood, Ickhampstead.

TURKEYS.—1, J. Bennett. 2, Mrs. M. A. Osborn.

CHICKENS.—1, G. M. Morecraft, Winslow. 2, J. Terry. **HE.** J. Steeden, Tingewick.

SPECIAL PRIZES.

FOWLS.—1, R. Soden, Buckingham (Game). 2 and 5, J. Steeden (White Silkie and Golden-pencilled). **HAMBURGHS.** 3, W. Burchell, Buckingham (silver Hamburgs). 4, W. Hickman, Gawcott (golden Hamburgs).

DUCKS.—1, A. Tyrell, Buckingham. 2, T. Hands, Maidsmoreton. 3, W. Wheeler, Buckingham. 4, J. Gauthier, Buckingham (Aylesbury). 5, J. Giles, Buckingham.

EXTRA PRIZES.—Mrs. M. A. Osborn, Maidsmoreton Mill (Peacock); J. Steeden (collection of Rabbits, Pigeons, and Fowls).

JUDGE.—Mr. W. B. Jeffries, Ipswich.

CASTLE DONINGTON POULTRY SHOW.

This was held on July 29th in conjunction with a Floral Exhibition in the grounds of the Hall Farm, Castle Donington, Derby.

DORKINGS.—*Cock*.—1, S. W. Hallam, Whitwick. 2, Miss M. Murray, Thulston. **C.** H. Feast, Swansea. **HENS.**—1, M. M. Cashmore, Sheepshead. 2, S. W. Hallam. **C.** H. Feast.

BRAHMAS.—*Cock*.—1, Rev. R. Story & H. Story, Lockington Vicarage. 2, J. Chant, Coalville. **HENS.**—1, H. H. Thompson, Chesterfield; 2, Rev. R. Story & H. Story. **C.** A. Eyre, Castle Donington. **HE.**—1, Dr. J. Holmes. 2 and **HE.** Rev. R. Story & H. Story. **C.** W. Mills, Duseworth.

COCHINS.—*Cock*.—1, M. M. Cashmore. 2 and **C.** Rev. R. Story & H. Story. **HENS.**—1, B. S. Lowndes, Stoney Stratford. 2, M. M. Cashmore. **HE.** and **C.** Rev. R. Story & H. Story.

SPANISH.—*Black.*—*Cock*.—1, S. W. Hallam. 2, Hon. G. Hastings, Donington Park. **HENS.**—1, S. W. Hallam.

GAME.—*Cock*.—1, R. A. Burton, Castle Donington. 2 and **C.** J. Richardson, Longborough. **HE.** Earl of Loudoun, Donington Park. **HENS.**—1, Earl of Loudoun. 2, J. Richardson.

HAMBURGHS.—*pencilled.*—*Cock*.—1, S. W. Hallam. 2, G. T. Eaton, Castle Donington. **HE.** M. M. Cashmore. **HENS.**—1, R. A. Burton. 2, M. M. Cashmore. **C.** S. W. Hallam.

HAMBURGHS.—*Pencilled.*—*Cock*.—1, H. Feast. 2, G. Drucott, Hopwell Hall. **HE.** H. H. Thompson, Colleshill, Borks. **C.** J. Gunn. **HENS.**—1, Dr. C. Hall, Swadincote. 2, A. Briggs, Castle Donington. **HE.** H. H. Thompson. **C.** S. W. Hallam.

ANY OTHER DISTINCT VARIETY.—*Cock*.—1, Dr. C. Hall. 2, H. Feast. **C.** T. Caydell, Kegworth. **HENS.**—1, H. Feast. 2, Rev. R. Story & H. Story.

ANY VARIETY.—*Chickens*.—1, Miss M. Murray, Thulston. 2, J. Richardson, Longborough. **Extra** 2, Rev. R. Story & H. Story, Lockington. **HE.** W. Thorn, Stanton-by-Bridge (2); M. M. Cashmore, Sheepshead. **C.** G. R. Pym, Kelper; Earl of Loudoun.

SELLING CLASS.—1, Miss M. Murray, Thulstone. 2, M. M. Cashmore. **HE.** C. Spenser.

BANTAMS.—*Cock*.—1, M. M. Cashmore. **HENS.**—1, R. Rookesby, Stamford, Lincoln. 2, J. Richardson. **HE.** Earl of Loudoun. **C.** H. Feast, Swansea.

COTTAGES' CLASS.—*Any variety.*—*Cock*.—1, W. Foxon, Lockington. 2 and 3, A. Burton, Castle Donington. **HENS.**—1, 2, and 3, A. Burton.

DUCKS.—*Aylesbury*.—1, H. H. Cashmore. 2, C. W. Story, Castle Donington. **HE.** Rev. R. Story & H. Story. **Any other variety.**—1, I. Clifford, Castle Donington. 2, G. T. Eaton, Castle Donington.

GESE.—1, J. Nicklinson, Isley Walton. 2, J. J. Briggs, King's Newton. **HE.** Porter, Lockington.

TURKEYS.—1, Porter. 2, J. Nicklinson.

Prize for the greatest number of points in Poultry. M. M. Cashmore.

PIGEONS.

CARRIERS.—1, H. Parker, Long Eaton. 2, M. M. Cashmore.

TUMBLERS.—1 and 2, M. M. Cashmore.

FANTAILS.—1 and 2, M. M. Cashmore.

POUTERS.—1 and 2, M. M. Cashmore.

OWLS.—1 and 2, M. M. Cashmore.

TIGERS.—1 and **HE.** M. M. Cashmore. 2, S. W. Hallam, Whitwick.

JACOBIANS.—1 and 2, M. M. Cashmore.

ANTWERPS.—1, Earl of Loudoun. 2, I. Clifford, Castle Donington.

RABBITS.—*Double Lopped*.—1, H. Robotham, Castle Donington. 2, M. M. Cashmore. *Heaviest*.—1, H. Robotham.

JUDGES.—Rev. T. O'Grady and Mr. Marshall.

LEICESTER POULTRY AND PIGEON SHOW.

The entries at this Show last year were somewhat in excess of those of 1874, but it is most satisfactory to be able to say, never has Leicester Show abounded in so many first-class poultry as last week. In almost every case the winners were birds of note throughout the kingdom, and we may safely state such an exhibition would have been a credit to any town in the empire. Among the most notable breeds, perhaps, were Light Brahmans, White Cochins, and Buff and Partridge. R. S. S. Woodgate, Esq., and Mrs. Agnes Williamson showed three pens of Whites of such transcendent merit, that the Committee at once permitted an extra prize to be awarded, as they generously did in some other instances. We cannot do otherwise than speak most highly also of Mrs. Williamson's Light Brahmans as being especially praiseworthy. The Buff *Cochin* chickens were exceedingly fine and well shown, but the *Game* fowls were not in bygone years. No *Hamburgs* competed except Golden-

spangled, many of which were excellent; the class being equally open to Silver-spangled, none, however, of the latter colour being sent. There should certainly have been a class for the Pencilled breeds likewise, but we suppose it was an oversight when making-out the original prize schedule that will now be corrected. Game *Bantams* were many of them very good, the Brown Reds particularly so, and the Any other variety class for Bantams was really of the highest character.

The *Aylesbury Ducks* proved to be magnificent, and some remarkably fine Rouen ducklings were exhibited. Whistling Ducks, which always appear as self-satisfied as can be imagined, caused many visitors considerable interest; and the Selling classes abounded with cheap bargains to those requiring them. The *Geese* and *Turkeys* were remarkably fine, and we were glad to see they enjoyed pens ample enough in size to allow exercise for the birds themselves, and also an easy inspection by visitors.

It may be some years ere so many high-class *Pigeons* are to be found in so small a collection, among the Toys there being Frillbacks, Fire Pigeons, and many other interesting and scarce varieties.

No Committee can be more deserving of support, every attention being devoted to the welfare of the birds during the Show, and the repacking of the poultry, &c., at Leicester is invariably managed with the greatest care and expedition. The fine weather brought together a very large company on both days.

DORRINGS.—1 and 2, J. Watts, King's Heath. 3, S. C. Pilgrim, Hinckley. *Chickens*.—1, J. Watts. 2, M. M. Cashmore, Sheepshed, Loughborough.

SPANISH.—1, J. T. Hincks, Humberstone. 2, M. Brown, Ab Kettleby, Melton Mowbray. *he*, H. Yardley, Birmingham.

COCHINS.—*Cinnamon and Buff*.—1, H. Tomlinson, Birmingham. 2, H. Yardley. *he*, E. Winwood, Worcester. *Chickens*.—1, H. Thompson. 2, H. Yardley. *he*, F. J. Draper, Burton-on-Trent; H. Feast, Swanscoe.

COCHINS.—*White*.—1, R. S. S. Woodgate, Farnbury, Tunbridge Wells. 2 and Extra 2, A. Williamson, Leicester. *Chickens*.—1, R. S. S. Woodgate. 2, No competition.

COCHINS.—*Any other variety*.—1, T. Sear, Aylesbury. 2, T. Sheppard, Humberstone. *Chickens*.—1, T. Sheppard. 2, H. Feast. *he*, T. Simey, Aylestone, Leicester.

BRAMMAS.—1 and *he*, A. Williamson. 2, J. Watts. *Chickens*.—1, E. Kendrick, Jun., Lichfield. 2, J. T. Hincks. *he*, J. T. Hincks; J. J. Watts; W. J. Ford, Humberstone.

GAMES.—1, Earl of Londond, Donington Park, Derby. 2, A. Peake, Somerby, Oakham. *Chickens*.—1, W. E. Oakley, Atherstone. 2, W. T. Everard, Ashby-de-la-Zouch. *he*, E. Winwood. *Cock*.—1, Earl of Londond.

HAMBOURGS.—*Golden or Silver-spangled*.—1, J. Ward, Bardon Hill, Ashby-de-la-Zouch. 2, M. M. Cashmore. *he*, S. W. Hallam, Whitwick. *c*, H. E. Emberton, Oadby.

BANTAMS.—*Game*.—1, J. Mays, Gloucester. 2, W. T. Everard. *he*, E. Bell, Burton-on-Trent. *Clear-legged, any other variety*.—1, H. Draycott, Humberstone. 2, M. Leno, Markyate Street, Dunstable. *he*, R. H. Ashton, Mottram, Manchester; H. Yardley. *c*, J. T. Hincks.

SELLING CLASS.—*Price not to exceed £1 10s.*—*Cock or Cockerel*.—1 and 2, T. Sheppard. *he*, J. T. Hincks. *c*, Earl of Londond; W. Birch, Barnacle. *Hens or Pullets*.—1, H. Yardley. 2, W. Birch. *c*, J. Watts.

DUCKS.—*Aylesbury*.—1, M. M. Cashmore. *he*, T. Sear. *Rouen*.—1, E. Kendrick, Jun. *he*, W. T. Everard. *c*, M. M. Cashmore; J. Brown, Jun., Markfield. *Any other variety*.—1, M. Leno. *he*, E. Kendrick, Jun.

TURKEYS.—1, E. Kendrick, Jun. *he*, W. H. Johnson, Brannston, Leicester.

GEES.—1 and *he*, J. Parker, Leicester.

PIGEONS.

CARRIERS.—1, H. Yardley. 2, T. T. Hincks.

PUTTERS.—1, H. Yardley. 2, No competition.

FANTAILS.—1, J. F. Loversidge, Newark. 2, H. Yardley.

TURBITS.—1, J. Watts. 2, H. Yardley. *c*, W. Loveday, Kibworth, Leicester; J. A. Ardon, Queniborough.

MAGPIES.—1, H. Draycott. 2, J. T. Hincks. *he*, J. Watts; H. Yardley.

ANY OTHER VARIETY.—1, H. Yardley (Fire Pigeons). 2, W. Gamble, Thorpe Satchville, Melton Mowbray (Black Trumpeters). *he*, Earl of Londond (2); J. Watts; H. Draycott; H. Yardley. *c*, W. Loveday.

SELLING CLASS.—*Price not to exceed £1.*—1, W. Mattock, Smeeton, Kibworth. 2, W. Gamble. *he*, C. Norman, Westerfield, Ipswich; J. H. Watkin, Hereford. *c*, J. T. Hincks; H. Yardley.

RABBITS.—*Lop-eared*.—*Buck or Doe*.—1, F. Banks, London. 2, W. Canner. *Any other variety*.—*Buck or Doe*.—1, W. Canner (Silver-Grey). 2, S. C. Pilgrim, Hinckley (Himalayan).

Mr. Edward Hewitt, of Sparkbrook, near Birmingham, was the Judge.

PONTEFRAC T POULTRY SHOW.

The following are the prizes awarded at this Exhibition held on July 30th. The number of entries was not very great, but the quality was generally considered very good.

COCHINA.—1, H. Bleasby, Hambleton. 2, J. Turton, Ackworth.

BRAMMAS.—1, Lady Hawke, Womersley Park. 2, Dr. Holmes, Chesterfield.

DORRINGS.—1, W. Brown, Ackworth. 2, J. Butterfield, Ackworth.

HAMBOURGS.—1, J. & W. Kellett, Ossett. 2, W. Appleby, Ackworth.

ANY BREED.—1, J. B. Hepworth, Rake Bridge. 2, J. Turton, Ackworth.

GAME.—1 and 2, J. B. Hepworth.

SPANISH.—1 and 2, F. Pickard, Pontefract.

BANTAMS.—1, W. B. Arundel, Tanshelf. 2, J. Hillaby, Tanshelf.

ANY OTHER BREED.—1, J. & W. Kellett, Ossett. 2, J. W. Hepworth.

DUCKS.—*Rouen, or any other variety*.—1, W. B. Fletcher, Ackworth. 2, Lady Hawke.

GEES.—1, J. B. Hepworth. 2, J. Middleton, Grove Farm.

TURKEYS.—1, Lady Hawke.

PIGEONS.

FANTAILS.—1, W. W. Fowler, Baxtergate, Pontefract. 2, J. H. Sykes, Huddersfield.

CARRIERS.—*Cock*.—1 and 2, G. J. Taylor, Fartown, Huddersfield. *Hen*.—1 and 2, G. J. Taylor.

TRUMPETERS.—1, R. E. Kitching, Bawtry. 2, W. W. Fowler.

PUTTERS.—1 and 2, G. J. Taylor.

OWLS.—1 and 2, W. W. Fowler.

JACOBINS.—1, G. J. Taylor. 2, J. H. Sykes.

BARDS.—1 and 2, G. J. Taylor.

TUMBLERS.—1, J. H. Sykes. 2, W. W. Fowler.

NCNS.—1 and 2, W. W. Fowler.

ANY VARIETY.—1 and 2, G. J. Taylor.

FANCY BIRDS.

CANARIES.—*Yellow Belgian*.—1 and 2, W. W. Fowler, Baxtergate, Pontefract. *Buff Belgian or Foreign*.—1 and 2, W. W. Fowler. *Yellow English*.—1, Petty and Cuss, York. 2, J. Hornby, Pontefract. *Buff English*.—1, W. W. Fowler. 2, J. Hornby. *Mottled*.—1, G. Cressey, Carleton. 2, J. Hornby.

BULLFINCH.—1, Miss Carter, Pontefract. 2, J. Hornby.

GOLDFINCH.—1, J. W. Walker. 2, J. Hornby.

GOLDFINCH MITE.—1, A. Sweeting, Pontefract. 2, W. W. Fowler.

LINNET.—1, J. Hornby. 2, W. W. Fowler.

GREY PARROT.—1, F. Pickard. 2, W. Wilson.

RABBITS.

LOP-EARED.—1, J. M. Mander, Wakefield. 2, J. W. Hemmant, Pontefract.

ANY OTHER VARIETY.—1, W. Schofield, Pontefract.

Messrs. Addy, of As-tern, and Crofts, of Mantle House, Blyth, acted as Judge.

THE POULTRY-KEEPER.—No. 14.

THE SPANISH FOWL.

GENERAL CHARACTERISTICS.

Body oval; erect on the feet; muscles well developed; legs long; four toes on each foot; feathers of the hackle and wing of the ordinary length; broad, long sickles; tail bushy, carried erect, and close to the neck; plumage entirely black, black and



Fig. 41.—Spanish Cock.

white, or floury white, in chickenhood; comb single, fleshy, and erect (fig. 41).

Weight.—At full age from 6 lbs. 10 ozs. to 7½ lbs. Bones small and light.

Flesh.—Abundant and very good.

Shape.—From the upper part of the head under the feet from 21½ inches to 23½ inches; from the back under the feet, 15½ inches.

Head (fig. 42).—Particularly distinguished by the thick wrinkles of the cheeks.

Comb.—Single, erect, and very high, larger than in any other variety, very thick at the base, slender at the upper part, denticulated with large regular points.

Wattles.—Long, slender, and pendant, and of the same colour as the comb, which is of a very rosy colour.

Ears.—Thick and sinewy, of the same colour and nature as the cheeks, with which they seem to join, and to make one large piece of white, only interrupted by a small thin bunch of feathers, which covers the auditory organ.

Cheeks.—Large, thick, and white, with a very light blue tint. When the bird gets old its cheeks are full of large wrinkles and irregular folds, so deep that the eye disappears when the head is seen behind or in front. Its cheeks are seamed with very small depressions, far apart and invisible at a distance.

Tufts.—Composed of small black feathers, fine and few.

Back.—Nearly straight, and generally black.

Eye.—Iris, red; pupil, dark chocolate.

Foot.—Rather slender; length, $3\frac{1}{8}$ inches; colour, slate blue.
Toes.—Usual size, same colour as the feet.

PLUMAGE.

The plumage of the cock is completely black. The feathers of the hackle, the back, and loins have metallic iridescence of silver, and in certain positions have mixed tints of green and purple. Those of the shoulders are of a velvety black. The wing coverts are of a green and bronze hue, as also are the large and small sickles; the rest is dull. Altogether the Spanish



Fig. 42.—Spanish Cock's Head.

cock has the *hidalgo's* aspect, belonging to it alone. Its vestment of velvety black, its face covered with white, its comb in the form of an aigrette, and its red gills, give it quite a Spanish air.

CLEVELAND POULTRY SHOW.

The annual Show of the Cleveland Agricultural Society was held at Middlesbrough on July 31st.

Time was when North Yorkshire could muster such an array of *Geese*, especially of the White Embden variety, as no other part of the kingdom, and five years ago, when this Show was held at Middlesbrough, the display of *Geese* was a great treat; but we hear the fanciers of this quarter have "killed the Goose for the golden egg," for this year not a single pen put in an appearance, the best of all the produce having, no doubt, been drafted off by the great exhibitors. Driffield interfered considerably with the entries at Middlesbrough, both exhibitions taking place on the same day. Although many pens were sent too late, the entries having closed, they were rightly refused. We may also hint, that it would be much better were exhibitors to make their entries earlier, and thus lighten the duties of those in office. A capital tent was provided, and this proved an excellent place for shelter during the smart showers which occurred at intervals throughout the day.

Spanish were first with two entries, but only one pen came to hand, the cock being a nice smooth-faced bird. Of *Dorkings* only the winners were good; but in *Cochins* were some fine specimens, the two pairs of Buffs to which the awards were made being grand in all points. In the next class, *White* were first and *Partridge* second, both being good pens. In *Brahmas* the winners were *Dark*, the first adult, and the second young birds. Pen 22 contained an exquisitely pencilled pullet with only a moderate cockerel. In pair of *Red Game*, the first were *Black-breasted*, and the cock of rather striking quality, with pretty good hens. *Duckwings* were first in the next class. In single cocks, *Black-breasted Reds* also won; the first a grand-coloured bird, the second good in shape but bad in colour; a fine stylish *Brown Red* being only highly commended on account of bad bumble feet. *Bantams*, *Game*, were bad, but the next class contained some nice cocks, the first and second being perfect *Blacks*, and a third prize was awarded to very good *Silver Sebright* chickens, which were, however, too young for successful competition. *Hamburgs* had some fair birds, *Golden-pencilled* coming first on the list. The first-prize pen contained a fine cock with a hen faulty in tail. A very good pen of *Golden-spangled* won first. The first-prize *Silver-spangled* were an even pen, but the rest were sorry. The Variety class was divided, the first section being for the old, and the second for young birds. In the former *Red Malays*, *Crève-Cœurs*, and *Houdans* won; and in the latter the awards were—first, *White Cochins*, and second *Brahmas*.

There were some good *Ducks*, but of *Goslings* and *Turkey poults* we can say little.

RABBITS.—There were two classes, the first for *Lops* of all properties. In this the first prize went to a good *Black-and-*

white buck, a little too gay in marking, $21\frac{1}{2}$ inches by 4 inches in the ear; the second to a *Tortoiseshell buck* rather low in condition but of good points, and $21\frac{1}{2}$ inches by $1\frac{1}{2}$ inches; third coming a *Black buck* $20\frac{1}{2}$ inches by 1 inches. Many of the others came very close in points, measurement excepted.

SPANISH.—*Black*.—1, Pollister & Hawkins, Topcliffe, Thirsk.
DORKINGS.—1, J. White, Warley, Northallerton. 2, T. P. Carver, Langthorpe, Boroughbridge. *he*, Lady D. Yeoman Woodlands, Whitby.
COCHINS.—*Dark and Cinnamon*.—1 and 2, G. H. Procter, Darham. *he*, D. J. Hobson, White, *he*, J. Stan, Middlebrough. *Any other colour*.—1 and *he*, G. H. Procter. 2, J. Bell, Kirkgate, Thirsk. *c*, I. Garbutt, Faradale, Kirby Moorside.

BRAMA POOTRAS.—1, T. Dobson, Kirby Moorside. 2, J. Clemmet, Stokesley. *he*, T. P. Carver, Langthorpe, Boroughbridge; W. J. Frank, Eaglescliffe, Yarm.

GAME.—*Reds*.—1, W. Pett, Middlesbrough. 2, W. Easby, Ormesby, Middlesbrough. *Any other variety*.—1, Holmes & Fardon, Great Driffield. *Cock*.—1, W. Youngsband, Darlington. 2, F. Blackburn, Ingley Greenhow, Northallerton. *he*, Holmes & Fardon.

BANTAMS.—*Game*.—1, Holmes & Fardon. 2, Miss E. M. Ellerby, Easingwold. *c*, J. Peel, Middlesbrough. *Any other variety*.—1, R. H. Ashton, Mottram, Manchester. 2, Wells & Sherwin, Ripon. 3, — Carver. *he*, T. P. Carver, Langthorpe, Boroughbridge; C. Hopper, Dairy Knoll, Middlesbrough.

HAMBURGS.—*Golden-pencilled*.—1, Holmes & Fardon. 2, S. G. Kilson, *he*, W. Bearpark, Northallerton; J. Webster, Whitby. *c*, G. Alderson, West Hartlepool. *Silver-pencilled*.—1, Holmes & Fardon.

HAMBURGS.—*Golden-spangled*.—1, T. P. Carver, Langthorpe, Boroughbridge. *Silver-spangled*.—1, Holmes & Fardon. 2, G. Alderson.

POLISH.—1, W. Bearpark. 2, C. Walker, Boroughbridge.

ANY OTHER VARIETY.—1, Lady D. Yeoman (Black-breasted Red Malay). 2, T. P. Carver. 3, G. Alderson (Houdans). *he*, Holmes & Fardon. *Chickens*.—1, 2, and *he*, W. J. Frank (White Cochins and Brahmas).

ANY VARIETY OF QUACKS FOR THE USE OF THE SEX.—1 and 2, T. P. Carver. 3, J. Gates, Kirby Carlton, Northallerton. *he*, Mrs. Buffham, Lofthouse, Saltburn; G. Pounder, Kirby Moorside.

DUCKS.—*Applebury*.—1 and 2, T. P. Carver. *Toucan*.—1, T. P. Carver. 2, G. Pounder. *Any other variety*.—1, T. P. Carver.

GOSLINGS.—1, R. Dodsworth, Stinton, Stockton. 2, G. Pounder.

POULTS.—1, H. Elft, Seamer, Yarm. 2, G. Pounder.

RABBITS.

LOP-EARED.—*Buck or Doe*.—1, 3, and *c*, B. W. Boulton, West Hartlepool. 2, J. R. Torbeck, Middlesbrough. *he*, J. S. Robinson, Darlington; J. R. Torbeck, R. Robinson, Middlesbrough; E. W. Boulton.

ANY FANCY BREED.—1, E. W. Forster, Middlesbrough. 2, J. W. Garbutt, Easton Junction.

EXTRA SECTION.—1, J. W. Taylor, Middlesbrough.

JUDGE.—Mr. E. Hutton, Pudsey.

GREAT HORTON POULTRY SHOW.

The fifth annual Exhibition was held on the 1st inst. at Great Horton, a busy suburb of Bradford; but, notwithstanding careful management, the Show does not progress, owing, we think, to the antiquated style of schedule. If proper attention were bestowed on it we think the Society would receive a good share of support.

Of single *Game* cocks there were ten entries, but only those noticed were of good quality. First came a *Black*, and second a *Brown Red*. In single hens, of which there were nine entries, the winners were *Brown Reds*, the second a grand pullet of this year, after which we found nothing of note till we came to the *Spanish*, of which very good pens were shown. In *Cochins*, first were *Buff* chickens, and second old *Whites*; whilst for *Dark Brahmas* the first were adults and the second young birds, but we confess a preference for the young pen. *Hamburgs* had three classes, Mr. Beldon taking all the prizes with capital birds. In *French* the first were *Crève-Cœurs* and second *Houdans*; and in the Variety class the winners were respectively *Silver* and *Golden Polands*. *Game Bantams* were fair, first *Piles*, and second *Duckwings*. Two nice pens of *Black Rose-combs* were shown in the next class, and in the Variety class the first were *Golden Sebrights*.

PIGEONS.—The entries were better than in poultry, the classification and prizes being better proportionately, and the birds may be pronounced a fair collection. In *Carriers Duns* were first and *Blacks* second, some excellent young *Duns* being also shown. *Dragoons* were good, and most of them were noticed; the first *Blue*, and the second *Brown-barred Silver*. *Owls* were fair, and *Turbits* very good, the birds being well placed—first *Yellow*, and second *Red*. *Short-faced Antwerps* were, *Duns* first and *Red-chequers* second; and in *Long-faces* the prizes were placed similarly; the first were a fine strong-built pair of birds. In the Variety class *White Pouters* stood first, and *Yellow Jacobins* second.

RABBITS had but one class with eight entries, the first prize going to a *Fawn-and-white buck*, and second to a *Fawn*, both of which were *Lop-ears*, but we failed to obtain the measurement.

GAME.—*Cock*.—1, E. Aykroyd, Ecclesfield. 2, J. Hodgson, Galloway Hill. *he*, J. J. O. Bradford; R. Hemingway, Shelf. *Hen*.—1, E. Aykroyd. 2, H. Butler, Bradford. *he*, J. W. Thornton. *Black-breasted*, or any other *Reds*.—1, J. Hodgson. 2, J. Fell, Alwalton. *he*, R. Hemingway. *Any other variety*.—1, J. Fell.

SPANISH.—*Black*.—1 and 2, H. Beldon, Goitstock, Bingley.

COCHIN-CHINAS.—1, H. Beldon. 2, H. Beldon; E. Throp, Horton. *he*, C. Carr, Wilden.

BRAMA POOTRAS.—1 and 2, H. Beldon. *he*, W. Hodgson, Keighley.

HAMBURGS.—*Gold or Silver-spangled*.—1 and 2, H. Beldon. *Gold or Silver-pencilled*.—1 and 2, H. Beldon. *Black*.—1 and 2, H. Beldon. *he*, J. Sharp, Bingley.

FRENCH.—*Any variety*.—1, G. W. Hibbert, Godley Hyde, Manchester. 2, D. Moulson, Bradford.

ANY OTHER VARIETY.—1 and 2, H. Beldon. *he*, D. Sharp, Bingley.

BANTAMS.—*Game*.—1, H. Beldon. 2, E. Smith, Wyke. *he*, G. H. Rudd, Great Horton; E. Smith. *Black Rose-comb*.—1, A. Smith, Northowram. 2, H. Beldon. *Any other variety*.—1, H. Beldon. 2, W. Wilkinson.

SELLING CLASS.—1, H. Peldon. 2, C. Carr. *hc*, D. Monlson.
DUCKS.—1, J. Pollard, Wibsey. 2, W. Wilkinson. *hc*, J. R. Pollard, Wibsey; Miss Lantley, Allerton.

PIGEONS.

CARRIERS.—1 and *hc*, W. R. A. Miller, Walsall. 2, J. Holden, Wibsey Slack.
DECOYONS.—1, H. Jennings, Allerton. 2, W. H. A. Miller. *hc*, H. G. Poole, Bradford. 3, W. Reece, B. Smith, Keighley.
OWLS.—1, Tordoff & Wilkinson, Wibsey. 2, H. Jennings.
TRUITS.—1, H. G. Poole. 2, J. Wilkinson, Clayton; J. Hawley, Gillington.
NISKS.—1, H. Jennings. 2, J. E. Mason, Clayton.
ANTWERPS.—*short-faced*.—1, H. Jennings. 2, J. Holden, Wibsey Slack. *hc*, W. Ellis, Idle. *Long-faced*.—1, H. Jennings. 2, M. Monecy, Low Moor.
ANY OTHER VARIETY.—1, J. Hawley. 2, T. Holt, Bradford.
SELLING CLASS.—1, H. Jennings. 2, J. Hawley.

RABBITS.—1, G. S. Burton, Beeston Hill, Leeds. 2, J. Armstrong, Leeds. *c*, F. Pohlman, Wheatley.

JUDGES.—Mr. A. Sutherland, Accrington; and Mr. J. Falkner, Hummanly, York.

EARLSHEATON POULTRY AND PIGEON SHOW.

THIS proved a very excellent Show, although the first held by the present Committee. It is pleasing to record its complete success, as the whole of the Committee well deserved so satisfactory an issue, for none could individually strive more than they did to ensure a full share of popularity. Many years back poultry shows were held at Dewsbury, but from lack of energy on the part of the managers in those days they proved to be not self-supporting, and were consequently discontinued. We have only to add there is not the slightest probability of such results in the hands of those now at the helm. The ground on which the Show was held is remarkable for the extensive views it affords of the surrounding district, even for twenty miles or more. The day was also exceedingly fine, being bright and sunny, with a brisk breeze that rendered all things pleasant; but had any storm suddenly arisen, the poultry would have been without any protection, as the pens were placed in the open field. Tents are always the most advisable plan, and, in the long run, ensure greater public support.

In *Spanish* fowls Mr. Brown, of Sheffield, took the first position with both cocks and hens, closely pressed, however, by Mr. Thresh, of Bradford. Many of the *Spanish* were not looking so well as customary, from the intense and long-continued heat of the present summer. Only rarely have better *Buff Cochins* been shown during the whole year, Mr. Tomlinson, of Birmingham, taking first in the class, and the plate prize for the best pen of poultry in the Show with a magnificent *Clear Buff* cock, large in size, unusually well booted and breeched; closely followed, however, by a somewhat smaller specimen, also of high quality, the property of Mr. C. Sidgwick, of Keighley. These birds, as was also the first-prize *Buff* hen, were shown in plumage that would have added credit to even a Christmas show. In *Brahmas*, on the contrary, although really fine show birds, even the prizetakers were in anything but show condition. Of *Hamburgs* but little can be said in the way of commendation. Some very good *Game* fowls were shown, but the heads of one or two of the cocks were absolutely shaven so closely that the crown of the head was entirely denuded of feathers. This should not be practised, and certainly detracts most considerably from their appearance to any practical eye. *Brown Reds* proved to be the best of the *Game* fowls.

In *Game Bantams* were a few first-class pens, but the time of moulting was upon most of them. In the *Variety* cock class a really good *Grey Dorking* and *Silver-laced Bantam* were the respective winners; and in the fellow class for hens, again a *Grey Dorking* stood first, and *Golden Poland* second; the latter had her crest, which was naturally an abundant one, almost entirely cut away at the front, and, as was justly remarked, appeared "as though she had just come from a barber's." In class 165a, for a cockerel or pullet of any breed, a nicely-shown *Light Brahma* pullet was first, and a *Spanish* cockerel second, and with the exception of a *Dark Brahma* pullet (pen 8, highly commended), none others of an entry of thirteen pens were otherwise than inferior. Both *Aylesbury* and *Rouen Ducks* were really good, and some specially fine ducklings were shown. In the selling classes *Dark Brahma* and *Partridge Cochins* in cocks, and *Red Pile* *Game* and *Spanish* in hens, were most commendable.

In a general class for *Rabbits* of seventeen entries, Lopped-eared ones were the winners. A few very fine dishes of eggs were shown.

Among the *Pigeons* Mrs. J. Firth, of Dewsbury, took a very large proportion of the prizes with *Carriers*, *Barbs*, and other very high-class specimens. To this lady's *Barbs* was also awarded the extra plate prize for the best pen of *Pigeons* exhibited, and it may with truth be stated all the *Pigeons* were unusually perfect.

SPANISH.—Cock.—1 and Extra, E. Brown, Sheffield. 2 and *hc*, J. Thresh, Bradford. *Hen or Pullet*.—1, E. Brown. 2, J. Thresh. *hc*, S. W. Hallam, Whitwick.

COCHINS.—Cock.—1 and Plate, H. Tomlinson, Birmingham. 2, C. Sidgwick, Keighley. *hc*, J. Walker, Rochdale. *c*, S. R. Harris, Cusgrave, St. Day. *Hen or Pullet*.—1, J. White, Netherton. 2, H. Tomlinson. *hc*, J. Walker; C. Sidgwick; S. R. Harris.

HAMBURG.—Cock.—1, S. W. Hallam. 2, D. Crosland, Chickcley. *Hen or Pullet*.—1, S. W. Hallam. 2, J. White. *c*, W. Jagger.

BRAHMA.—Cock.—1, J. F. Smith, Sheffield. 2, W. Firth, Birkenshaw, Leeds. *hc*, J. Watts, Birmingham. *Hen or Pullet*.—1, W. Whiteley, Sheffield. 2, J. Watts.

GAME.—Cock.—1, J. Fortune, Keighley. 2, C. W. Brierley, Middleton. *c*, H. C. and W. J. Mason, Birstal. *Hen or Pullet*.—1, C. W. Brierley. 2, H. C. and W. J. Mason. *hc*, J. Fortune.

BANTAMS.—*Game*.—Cock.—1 and Pipe, G. Auderton, Accrington. 2, A. Smith. *hc*, W. F. Entwistle, Westfield, Bradford. *c*, G. Noble, Staincliffe. *Hen or Pullet*.—1, G. Noble. 2 and *c*, W. F. Entwistle.

ANY OTHER VARIETY.—Cock.—1, J. Walker. 2, A. & W. H. Silvester, Sheffield. *Hen or Pullet*.—1, J. Walker. 2, A. & W. H. Silvester.

ANY VARIETY.—Cockerel or Pullet.—1, J. Watts. 2, J. Thresh. *hc*, H. Digby, Lindley.

DUCKS.—Any variety.—Drake.—1 and 2, J. Walker. *c*, T. Halmshaw. Ducks.—1 and 2, J. Walker.

DUCKINGS.—1, H. Digby.

SELLING CLASS.—Cock.—1, W. Mitchell, Birkenshaw. 2, J. Walker. *Hen or Pullet*.—1, J. Thresh. 2, H. C. and W. J. Mason.

PIGEONS.

CARRIERS.—Cock or *Hen*.—1 and *hc*, Mrs. J. Firth, Dewsbury. 2, H. Yardley, Birmingham.

POUTERS.—Cock or *Hen*.—1 and 2, J. E. Crofts, Worksop. *hc*, P. R. Spencer, Hereford.

RABBS.—Cock or *Hen*.—1, Eggstand, and 2, Mrs. J. Firth. *hc*, P. R. Spencer.

TUMBLERS.—Cock or *Hen*.—1, H. Yardley. 2, J. E. Crofts. *hc*, W. Moore, Pickering.

OWLS.—Cock or *Hen*.—1, Mrs. T. Waterworth, Dewsbury Moor. 2, H. Yardley. *hc*, S. Anderson, Mithel.

FANTAILS.—Cock or *Hen*.—1 and 2, J. F. Loversidge, Newark. *hc*, P. R. Spencer. *c*, Q. Blum, Broughton.

ANTWERPS.—Cock or *Hen*.—1 and 2, J. Crosland, Wakefield. *hc*, G. Oldroyd; *c*, M. Blingworth, Earlsbaton.

ANY OTHER VARIETY.—Cock or *Hen*.—1 and 2, A. A. Vander Meersch, Tooting, London. *hc*, A. A. Vander Meersch (3); J. E. Crofts. *c*, A. & W. H. Silvester, Sheffield.

SELLING CLASS.—Cock or *Hen*.—1, W. H. Firth, Dewsbury. 2, A. Smith. *hc*, A. & W. H. Silvester. *c*, J. Watts; S. Anderson; W. Phillips, Ossett.

RABBITS.—1, J. E. Croft. 2, J. Armstrong, Leeds. 3, G. S. Burton, Beeston Hill, Leeds. *hc*, A. W. Whitehouse, Northampton. *c*, G. Cooper, Earlsbaton; G. Ibbertson, Earlsbaton; J. Hallas, Huddersfield; A. & P. Kiley, Chickney; G. S. Burton.

Messrs. Hewitt and Teebay judged the poultry and Rabbits, and Capt. Heaton the Pigeons.

PIGEONS AND RABBITS AT THE ALFORD POULTRY SHOW.

PIGEONS.—There were ten classes for Pigeons, and for the amounts offered the entries were good. The pens were well arranged, and the birds attended to by a capital staff, which, considering that this is but the second Show, is a great credit to the Society. *Carriers* were fair; second, a young *Dun* cock of great promise; and first, a handsome *Black* hen of two summers. *Pouters* were: First a grand *White* cock, 1½ by 6½ inches, and very showy; the second, full large, but not in such trim, was also a *White*; and third a very good *Blue*, though shorter in feather and limb than the others. *Fantails* were another three prizes for Newark, and all very good, the third one having grand motion. *Owls* were all English, the first and second *Blues*, and the third *Powder Blues*. *Antwerps* came up well, considering the class was a mixed one. First was a good *Short-faced Red Chequer*, rather too long in feather; second a *Long-faced Blue Chequer*, very good in head and flying properties; and third a *Short-faced Dun*. *Barbs* were very good, which, while young, were well made up, smart, and clean; the first a *Yellow*, and the others all *Blacks*. In *Tumblers* a good *Almond* stood first, a good *Blue Beard* second, and a *Black Bald* third. *Dragoons*.—Of these there were eight entries, a good strong *Blue* first; second also *Blue*, but a little too long; third of the same colour, and a bird of this year. 569 was good in many points, but had a very ugly beak. The *Any other variety* class was large, and many birds were noticed. The first prize went to a really good *White African Owl*; second a *Red Turbit*, and third a *Red Magpie*, while a *Black Mottle Trumpeter* was very highly commended. There were seventeen entries in the *Selling* class, but nothing of any quality.

In *CAGE BIRDS*, first was a *Grey Parrot* in Class 69, and second a pair of *Budregars*. In *Belgians*, Messrs. Knight & Spencer showed two good birds, but the rest were poor. *Norwich Canaries* showed up well, but the colour was not high, a *Jonque* cock being awarded the prize. For a *Canary* of any other variety, first came a pretty *Lizard*, and second a very good *Jonque Cinnamon*. Mules were not of great value, but some pretty *Goldfinches* came forward in the *Finch* class. *Skylarks* very poor, but *Thrush* and *Blackbirds* were very good.

RABBITS.—In *Lop-ears* a grand *Fawn* doe in the highest bloom was first, second came a doe of great length, and third an *Albino* doe, also large and very good in all points. This class being for *Self-coloured Rabbits*, the question naturally arises—viz., Is an *Albino* a *Self-coloured Rabbit*? We think not, and the question cannot be too soon settled; for all practical purposes these are almost worthless. *Broken-coloured Lops* shared the prizes as follows:—First, a *Blue* and *white*; second, *Black* and *white*; and third, *Fawn* and *white*; the first in rather bad order, but the others in better bloom. As regards *Belgian Hare Rabbits*, there seems to be some difference of opinion respecting points, for in this case the awards were made to the largest, the best-furred *Rabbits* being left last. *Silver-Greys* were very good, and the prizes well placed. In *Himalayans* the winners even

were somewhat mousy on the feet, but withal good; Angoras proving a fair lot and well placed also. In Dutch the winners were all Blue, this colour seeming to approach nearest perfection. The first two were adults; but the third, not more than five or six weeks old, was exceedingly pretty. The Patagonians in the Variety class were of great size and shown in fine order. We published the poultry awards last week.

PIGEONS.

CARRIERS.—*Cock or Hen*.—1 and 2, J. E. Palmer, Peterborough. 3, H. Yardley, Birmingham. *hc*, R. Ashton, Huntingdon.
POUTERS.—*Cock or Hen*.—1, H. Simpson, Spalding. 2, E. J. Palmer. 3, H. Yardley. *hc*, R. Ashton; E. J. Palmer. *c*, C. G. Cave.
FANTAILS.—*Cock or Hen*.—1 and 2, J. F. Loversidge, Newark. 3 and *c*, W. H. Tomlinson, Newark. *hc*, H. Simpson.

OWLS.—*English.*—*Cock or Hen*.—1, J. E. Palmer. 2, W. Woodhouse, King's Lynn. 3, Rev. W. V. Longe, Tuddenham Vicarage, Ipswich. *hc*, H. Yardley; J. E. Palmer. *c*, Dr. G. Walker.

ANTWERPS.—*Cock or Hen*.—1 and *hc*, H. Yardley. 2, C. W. Billett, Richmond. 3, J. Watts, King's Heath, Birmingham. *hc*, Dr. E. A. Harbord, Boston; C. W. Billett; F. Hodgson, Great Driffield.

BARNS.—*Cock or Hen*.—1 and 3, H. Yardley. 2, C. G. Cave, Spalding. *hc*, W. Massey, Spalding.

TRUMPETERS.—*Cock or Hen*.—1 and 3, H. Yardley. 2, W. Woodhouse. *hc*, J. E. Palmer. *hc*, J. E. Palmer; Dr. G. Walker.

DRAGONS.—*Blue and Silver.*—*Cock or Hen*.—1, W. Smith, Walton, Liverpool. 2, W. Larkins, Biggleswade. 3, H. Yardley. *hc*, J. Walker; J. Watts.

ANY OTHER VARIETY.—*Cock or Hen*.—1, H. Yardley. 2, J. Watts. 3, A. Canty, Barton-on-Humber (Marpie). *hc*, F. Hodgson (Mottled Trumpeter). *hc*, E. Foster, Ilford (Turbit); H. Yardley; H. Simpson (Trumpeter).

SELLING CLASSES.—1, W. Massey. 2, H. Simpson (White Fantails). 3, H. Yardley. *hc*, W. Larkins (Trumpeters); G. F. Clare, Louth (see Pigeons); A. Canty (Owls); C. G. Cave. *c*, W. Larkins (Jacks); H. Simpson (Pouters); T. H. Dows, Boston (Ural Ice).

CAGE BIRDS.

PARROT, PARROQUET, OR ANY FOREIGN BIRD.—1, L. Allen, London. 2, J. Priddy, Boston. *hc*, J. Atkin.

CANARY.—*Delight.*—1 and 3, Knight & Spencer, Arlesey, Beds. *Normich.*—1, E. Ross, Cheap-side. 2, J. Hornby, Alford. *hc*, Knight & Spencer. *c*, Knight and Spencer; J. Atkin; S. Tomlin. *Any other variety.*—1 and 2, S. Tomlin. *hc*, A. Lambert, Alford.

MULES.—1, T. H. Dows. 2, S. Tomlin.

LINNET OR FINCH OF ANY VARIETY OF FINCH.—1, C. Bond, Alford (Goldfinch). 2, Knight & Spencer (Goldfinch). *hc*, L. Brown, Alford (Goldfinch); Mrs. Jackson (Bullfinch).

LAKE.—*Sky or Wood.*—1, T. Hobster, Boston.

TURKISH OR BLACKBIRD.—1, H. Baldwick, Boston; Mrs. J. Smith. *hc*, J. Martin, Alford; J. Atkin.

ANY OTHER ENGLISH BIRD, CAGE OR OTHERWISE.—1, Master L. J. Brackenbury, The Elms, Alford. 2, T. Coppertwaite, Alford.

RABBITS.

LOPE-EARED.—*Self-coloured.*—*Buck or Doe.*—1, T. Myton, York. 2, F. Banks, London. 3, W. Whitlam, Alford. *Any Broken Colour.*—*Buck or Doe.*—1, F. Banks. 2, C. King, London. 3, J. H. Brand, Barton-on-Humber. *hc*, T. Myton.

BOLEIN HARE.—*Buck or Doe.*—1, W. Whitlam. 2, J. T. Billett, jun. 3, T. H. Dows.

SILVER-GRAY.—*Buck or Doe.*—1, S. Ball, Braford, Yorks. 2, Miss Mortimer, Ross. 3, R. H. Grew, St. John's, Wakefield. *c*, J. Boyle.

HIMALAYAN.—*Buck or Doe.*—1, R. A. Bousier, Penarth. 2, W. Whitworth, jun. 3, Master T. H. Atkinson. *hc*, Miss J. Burton, Alford; Leggett & Cawood, Thorne.

ANGORA.—*Buck or Doe.*—1, H. Swetnam, Fulford. 2, S. Ball. 3, P. Stanley, Leamington. *c*, J. & H. Martin; T. Garner, Kinschore.

DOCK.—*Buck or Doe.*—1, J. Boyle, Blackburn, Lancashire. 2 and 3, H. Gilbert, Rugby.

ANY OTHER VARIETY.—*Buck or Doe.*—1 and 2, M. Marsland, Goele. 3, G. Des Forges, Bilsby, Alford.

SELLING CLASS.—*Price not to exceed 30s.*—*Buck or Doe.*—1, Jones & Simkins, Wolverhampton (Light Grey-and-White Lop). 2, T. S. Lacy, Leicester. 3, J. T. Codrington, Spalding. *hc*, J. Bowman (Dorsetshire Back). *c*, Jones and Simkins (Fawn-and-White); A. Canty (Double Lop).

CATS.—*English.*—*Male or Female.*—1, D. Mountain, Alford.

The Judges for Pigeons were Mr. Hutton, Pudsey; for Rabbits, Cats, and Cage Birds, Mr. J. W. Harrison, Spalding.

WHITWICK POULTRY SHOW.

This was held on the 4th inst. We must defer our remarks till next week. The following is the list of awards:—

GAME.—*Black and Brown-breasted Red.*—1, Earl of Londun. 2 and *hc*, J. Richardson, Loughborough. *Any other variety.*—1, J. Richardson. 2, E. Bell, Haringlow.

DORKINGS.—1, S. W. Hallam, Whitwick. 2, — Pilgrim, Hockley. *c*, M. M. Cashmore, J. Almey.

SPANISH.—1, S. W. Hallam. 2, H. T. Cooper.

COCHINS.—1, H. Tomlinson, Birmingham. 2, M. M. Cashmore. *hc*, H. Yardley, Birmingham. *hc*, G. F. Pa freyman, Sheffield. 3, Sears, Aylesbury. *c*, J. Hall, Swadlow.

BRAMMAS.—1, J. Hall. 2, Rev. R. Story, Lookington Vicarage, Derby.

HAMPBROS.—*Gold or Silver-pencilled.*—1, J. Hall. 2, J. Loaz, Bromley. *hc*, G. De Lisle, H. H. Thompson, Colleshill, Farnham. *c*, M. J. Cashmore, Gold and Silver-pencilled. 2 and *c*, J. Ward. 3, T. E. Jones, Wolverhampton. *hc*, M. M. Cashmore; S. W. Hallam.

ANY VARIETY.—1, J. Long. 2, Rev. A. G. Brooks, Shrewsbury. 3, J. Hall. *hc*, J. Richardson. *c*, H. Feast.

BANTAMS.—1, H. Yardley. 2, M. M. Cashmore. *hc*, E. B. H.

DUCKS.—1, T. Sears. 2, J. Brown, Markfield. *hc*, M. M. Cashmore.

GEES.—1, J. Swift, Greenhill, Whitwick. 2, F. Walker.

TURKEYS.—1, F. Walker.

LOCAL CLASSES.

GAME.—*Black and Brown-breasted Red.*—1, W. T. Everard. 2, J. Moo. *c*, T. Smith, Whitwick. *Any other variety.*—1, W. T. Everard. 2, W. Kirby.

DORKINGS.—1, S. W. Hallam.

SPANISH.—1, S. W. Hallam. 2, J. Gunn.

COCHINS.—1, J. Gunn. 2, S. W. Hallam.

BRAMMAS.—1, J. Gunn. 2, S. W. Hallam.

HAMPBROS.—*Gold or Silver-pencilled.*—1, W. Rawlings. 2, J. Ward. 3, J. Ward. *hc*, S. W. Hallam.

ANY VARIETY.—1, J. Ward. 2, G. F. Thirby, Whitwick.

BANTAMS.—1, S. W. Hallam. 2, W. T. Everard.

PIGEONS.

CARRIERS.—1, W. H. G. Miller, Walsall. 2, G. Bentley, Rickmansworth. *hc*, H. Yardley. *hc*, M. M. Cashmore.

POUTERS.—1, H. Yardley.

FANTAILS.—1, J. F. Loversidge, Newark. 2, G. De Lisle. *hc*, Rev. A. G. Brooke. *c*, H. Yardley.

TUMBLERS.—1, H. Yardley. 2, J. Almey.

ANTWERPS.—1, H. Yardley. 2, G. Lendley. *hc*, G. De Lisle. *c*, Earl of Lougham.

ANY VARIETY.—1, G. Middleton, Bardon Hill. 2, S. W. Hallam. *hc*, R. Mould, Coleorton; T. Middleton.

RABBITS.—*Any variety.*—1, J. B. Dobell, Loughborough. 2, A. J. Cayless. *hc*, M. M. Cashmore. *Local Class.*—1, W. Kirby, Donington. *hc*, J. Kirby.

CANARIES.—*Yellow.*—1, G. Chamberlain. 2, T. Bradley. *Any other colour.*—1, G. Chamberlain. 2, T. Moore. *c*, T. Hawthorne.

JUDGE.—Mr. E. Hutton, Pudsey.

LISKEARD POULTRY SHOW.

(From a Correspondent.)

This was held on July 23rd, in connection with the Horticultural and Dog Show, and, I believe, was a success. The birds were exhibited in a large marquee.

The first class was a very singular one, and one that we do not often meet with; in fact, I think this is the only Show that offers prizes for Hennies, Tassels, Muffs, and any other White-legged Game adapted for table purposes. In single cocks the first prize, a gold medal, was won by a Tassel, a very good bird of the breed, but looking as if he was unwell; the second prize was the amount of entry fees of the class, and was also won by a Tassel in capital feather for the time of year. This bird belonged to Miss Bella Short, who also won the prize given to the exhibitor of the greatest variety in the class. Most of the birds looked as if they could stand any amount of steel, and I thought they were more suited for fighting than for exhibition. *Game*, any variety.—It is a very bad plan to throw all the varieties of Game into one class; and if there had been one or two more classes provided, I am sure it would have paid, because there are a great many Game fanciers in the county. As it was, Mr. Browne won first with what I should consider his best Brown Reds, and they were truly good; a pair of very fair Black Reds second, and moderate Brown Reds third. In *Dorkings* Mr. Barnell's pair of Coloured were perfection; a very good pair of Whites being second, and a fair pair of Coloured third. *Spanish*, including Minorcas and Anconas, were very poor, neither second nor third prizes being awarded. In the *Malay* class a pen of rare birds were first, and well deserved their position. The *Cochin* class, any variety, contained some excellent birds and some noted winners, Mr. Harris taking first honours with his far-famed Buffs, splendid-coloured birds. Second came a very nice pair of Partridge, though rather small—the birds, I think, with which he won the cup at Dorchester. Two pens of very fair Whites were highly commended. In the *Brahmas* grand Darks won an easy victory; Mrs. Holmes second with a very good pen of Lights. Of *French*, any variety, there was only one entry, which turned out to be splendid Houdans, and they well deserved the first prize. In the next class I was much vexed to find a beautiful pair of White-crested Black *Polands* too late for competition; having been exhibited up the country on the previous day, they were not despatched in time for the Show, otherwise they would have been first, and the first prize bird second. In *Gold or Silver-spangled Hamburgs* the first was won by a very smart and good pair of Golden, second only moderate; in this class also the same gentlemen's birds as in the preceding class arrived too late for competition, and contained a cock only, but he was a good spangled bird, and with an equally good hen would have run the first prize birds hard. Of *Gold and Silver-pencilled* there were only two entries, and only one was a good pair, which easily won first. In the *Game Bantams* a very good pair won easily, the cock especially so, although he had begun to moult; Mr. Currah taking second with his noted Brown Reds, the cock bird being rather mossy. In *Bantams*, any other variety, a capital pair of Black *Rose-combs* were first, and I have a strong impression that they were the same birds that were highly commended at St. Austell, only they were entered in another name. Good White-booted won second. The single cock class contained some very fair specimens, Mr. Lias winning with a splendid Partridge *Cochin*; a Black Red being second.

In *Ducks*, Aylebury or Roven, Mr. Cratt was first with the birds that won second at St. Austell last Show. A pretty little pair of Decoy Ducks were second in the Any other variety class.

The *Pigeons* were few, but contained some good birds, especially the Carriers, Dragons, and Antwerps.

We published the list of awards last week.

CARRIER PIGEONS EXTRAORDINARY.

ONE of the most curious incidents connected with modern journalism is the regular employment of Carrier Pigeons in collecting intelligence for the daily and weekly newspapers. In the competitive exertions to procure the "Latest Intelligence," it has been found that for short distances newspaper reports can be sent readier, cheaper, and quicker by press Carrier Pigeons, flying a mile per minute, than by the postal telegraph.

These aerial postmen are entrusted to resident correspondents in various places, ready to be dispatched at any moment, whilst others are sent out by reporters to places where important events are transpiring. It is now no uncommon thing to see reporters at police courts, inquests, public meetings, &c., dispatch folio after folio of "copy" by press Carrier Pigeons tossed through the nearest window, or thrown out of a train or steamer going at full speed. The attachment of these birds to the place of their birth, and their ability to find their homes from marvellous distances, are, of course, their distinguishing characteristics.

A "columbar" or home is established at the various newspaper offices, and whenever a bird arrives with a message the act of the Pigeon entering its cot sets a call-bell ringing in the editor's room, the bell machinery continuing in motion until attended to. Being expressly bred for press purposes—conveying news to our great cities—they are not the pure Carrier Pigeon (which is larger, heavier, and slower on the wing, and not so well adapted for press purposes), but are of a special pedigree, bred by Messrs. Hartley & Sons, of the *Woolwich Gazette*, Woolwich, from prize birds imported from the best lofts of Antwerp, Brussels, and Liège; all "producteurs" being rejected which have not won a 300-mile "concours." Press Carrier Pigeons owe their origin to Darwin's principle of "natural selection," or the "survival of the fittest." In the struggle for life in connection with the compulsory flying of long distances, the homing and flying powers of the Pigeons are developed to a large degree, whilst the birds which cannot do the distance are necessarily lost and eliminated. The surviving or winning voyageurs become thus educated to the highest standard of perfection, and this system being continued through many generations (the flying distances increasing every year), a race of Pigeons have been produced with powers which a few years ago would have been deemed impossible.

Press Carrier Pigeons, though as a rule only used for short distances, in competition with the electric telegraph, can be specially trained to distances of 500 miles, and frequently fly to England from Dublin, Brussels, Paris, Lisbon, and even Rome. The utilisation of the instincts of birds for press purposes is being carried even farther than this. An ocean-homing bird of great docility, intelligence, and spirit, has been found in Iceland, which flies at a meteor-like speed of 150 miles an hour, and is able to find its home, over sea and land, from any part of the habitable world. A pair of these birds a few days ago brought dispatches from Paris to a lonely spot, congenial to their nature, in a wild and rocky part of Kent, within ten miles of London, in an hour and a quarter. Press Carrier Pigeons took the dispatches on to the City, the whole distance from Paris to London, by actual parcel mode of conveyance, being done within an hour and a half. If the experiments at present being made in training and educating them continue successful, it is hoped by next summer to establish a daily miniature ocean mail between America and Europe, the whole distance to be traversed between sunrise in one hemisphere and sunset in the other.—(*Standard*.)

[When will general newspaper writers understand anything about Pigeons? I may well put this question, considering that the above ludicrous paragraph appeared the other day in a first-class London daily paper. Fancy "folio after folio" attached to poor Pigeons' legs or central tail feathers! But, Pigeons, hide your heads before "the ocean homing bird from Iceland, who now builds in Kent." I should like the writer to catch that bird. Always catch your hare first. If building "in a wild and rocky part," I should fancy this bird would be wild too; rather large, I should also fancy, and with possibly strong beak and sharp claws. I hope the writer will kindly catch that bird. When the bird comes back I presume he carries a whole *Standard* of news at least. At the next Crystal Palace Show I hope my friend Mr. Wilson, always enterprising, will kindly borrow the wondrous bird and put him among the Homers; or, better, put off the Show until April 2nd, and send the writer to catch him on April 1st before noon. Perhaps after all the writer misdirected his letter, and his account was meant for *Fun or Judy*—a sort of heavy, very heavy, joke.—WILTSHIRE RECTOR.]

HONEY PROSPECTS—A RODEBOROUGH VALE APIARY.

This is the fourth year of my experience as a bee-keeper, and it is by far the best honey season I have known. My stock in the spring consisted of nine Ligurians, eleven hybrids, and five English, since ligurianised. My best Ligurian stock, after taking from it seven nuclei, has half filled a super; from another I have taken two supers weighing gross 33 lbs. and 43 lbs., and it has nearly filled a third. From one other a super weighing 47 lbs. Three more have nearly filled two supers each, and five one each; the rest were either partly filled with comb in the spring, and have crammed the stock hives, and partly filled supers, or from being ligurianised have been thrown back. One has been

kept comb-building to supply nuclei; one swarmed, after partly filling two supers, on June 15th; the queen had one wing damaged, and fell in front of the hive, most of the bees returning. I then, on the 20th, took out three brood combs with queen cells, making three nuclei, thinking it would stop a second swarm; but they threw a very large one on the 25th, which has filled up the hive, and stored considerable honey.

My bees are all, with the exception of one hive, in Woodbury hives, mostly made of 3-inch stuff; the later-made ones are 1-inch, and on separate stands, which I consider preferable. I gave them above 2 lbs. of sugar syrup monthly through the winter and spring, and they were mostly strong in April. I lost three stocks during the winter; one from neglect, and two lost queens. My supers are of wood, with a small 2-inch window, and when filled hold about 40 lbs. The honey harvest is now, I think, over, and I am taking off supers. Aston's bee trap clears them with very little trouble.—G. S. T., *Stroud*.

BEE-KEEPER'S CALENDAR FOR AUGUST.

GENERALLY speaking, August is the last month of honey-gathering in Great Britain, and where bees are taken to the moors it is often the best. I have stated elsewhere that a twenty-acre field well sprinkled with white clover will, in favourable weather, yield to bees 100 lbs. of honey daily; and I have no hesitation in saying that twenty acres of good heather will yield more honey while it continues in flower than clover. The heather being hardier is less affected by weather. Clover is easily affected by cold weather, and seldom yields much honey after July. On heather bees can creep from flower to flower, and thus load themselves easily and speedily; whereas on most other plants they have to fly from flower to flower. Once only have I known a hive gather 20 lbs. in two days, and this was done on the moors. Mr. Shearer, in a letter of the 21st of July, 1874, informs me that on the Saturday before a swarm of his rose in weight 10 lbs. in twenty-four hours—that is to say, from Friday night to Saturday night. Such gatherings by single swarms are unusually and exceptionally large. Five pounds gathered from clover or heather by a swarm in twenty-four hours are a very good day's work. By-and-by we shall frequently hear of 5 lbs. being stored-up in a day by a single swarm. By the figures of Mr. Bagshaw in last week's *Journal* I see that some of his hives gained about 15 lbs. a-week each—i.e., from 30 lbs. to 35 lbs. in seventeen days.

All bee-keepers who intend to remove their bees to the moors should transport them there as soon as possible, for now (July 31st), bees are gathering honey from the early heather blossoms. Two days ago I took fifteen hives to the Glossop moors, the bees of which commenced to gather honey almost as soon as the doors were opened. By the time this letter appears in print we shall have thirty more hives there; indeed, they would have gone this week if the carter had not been previously engaged. The early blossoms of heather yield more honey than the later ones. The reader must bear in mind that the first half of the heather season is better for honey-gathering than the second half.

Those who do not remove their bees to the moors will now begin to think of taking their honey, for, where there is no heather, honey-gathering generally ends with July.

Before a hive is taken for honey the apiarian should examine all his hives thoroughly and weigh them with a view to select a certain number for stock, and mark those that are to be put down for honey. In seasons of early swarming the first swarms are generally the heaviest, and as they contain the oldest queens and most honey they are usually marked for honey. This year the swarming time was uncommonly late, and therefore many of the stock or mother hives are heavier than their swarms at the present time. A fortnight of favourable weather will enable the swarms on the moors to overtake, overleap, and outweigh the stock hives. Our first swarm weighed 56 lbs. before it was taken to the hills.

In selecting stock hives the apiarian should prefer those with young combs of the worker kind, and as free from drone cells as possible; and it is desirable that the hives should be filled or nearly filled with combs now, for in spring bees instinctively build too much drone comb in hives but partially filled. Such hives become half filled with drones about the swarming time, and it is well known that drones eat a great deal of honey and gather none.

Second swarms and turnouts have both young queens and young combs, and therefore are eligible in this respect for keeping. In good seasons they are generally heavy enough for stocks, say from 40 lbs. to 50 lbs. each. Where the turning-out system is not followed, the mother hives as well as first swarms are often in good years too heavy for keeping. If first swarms be selected for stocks the ages of their queens should be considered, for it is not safe nor wise to keep queens three years old. Some die at that age, and none live more than four years. A great loss is sustained if a queen is permitted to die of old age, whether death takes place before or after swarming. Some

fourteen days pass before the bees can rear a queen to take her place, and about fourteen days more pass before the young queen begins to lay. This is not all, for if the queen die after swarming the bees instinctively begin at once to build large sheets of drone comb in the centre of their hive. If a hive with an old queen be selected for stock—and this is often done—and another with a younger queen be selected for honey, the bees with the old queen should be driven into an empty hive with the view of seeing and destroying the queen. Then the bees with the younger queen should be driven from the honey hive and cast into the other; also the bees bereft of their queen should be cast back into their own hive amongst the rest. Thus the stock hive would obtain a young queen and a double portion of bees. If the hive with the young queen be selected for stock, the bees of the other (but not its queen) should be united to it in like fashion. Apiarians who keep large hives and manage their bees in this way have hives second to none for excellence, power, and real value. Old combs are most objectionable—black and ugly, frequently half filled with pollen. The honey in them is difficult to take. I repeat that old queens and old combs should be pushed aside in selecting stocks for another year. Every bee-keeper who does not wish to increase his stocks, and who manages them on the swarming principle, can do this easily every autumn.

“Sometimes in very good seasons almost all the hives become too heavy for stocks. What, then, should be done?” Part of their stores must be cut out. “But then that leaves room for drone combs next spring.” Of course it does, but we can’t help it. To-night I shall cut a great number of honeycombs from three hives that will be taken to the moors next week. They now weigh about 60 lbs. each, and are rather too heavy for an old man like myself to lift on and off a cart. I expect to obtain 60 lbs. of honeycomb from the three. The practice of reducing the weight of hives now is more convenient than commendable. If these hives were to go to the moors as they are, and were to have fourteen days of fine weather, they would rise in weight to more than 100 lbs. each. There are two ways of dealing with hives too heavy for keeping—viz., by reducing their weight, or by driving all the bees out of them at the end of the season into empty hives and taking their honey; and if this be done, where are the stocks to come from? The honey in such seasons and cases is taken, but the bees are preserved and fed. Two swarms, or one large one, are put into an empty hive and fed very vigorously; at least, 20 lbs. of sugar and about an equal weight of water should be boiled and given to every such swarm or hive of bees. From this syrup the bees will nearly fill a 16-inch hive with combs, and such feeding promotes breeding. A good hatch of young bees is produced late in the season in these sugar-fed hives, which make very good stocks. Their combs are young, and free from a superabundance of pollen. When spring arrives they will be found to thrive uncommonly well. While being fed they should be kept warm, and the syrup given to them regularly in considerable quantity. Every bee-keeper will use his own contrivance in feeding such swarms. I have not spoken against any system of feeding, and I am not going to begin to do so now. Such swarms are fed from below by various contrivances. Sometimes through holes in the floor-board the bees get the food from a hive or dish below; and I once saw a very successful apiarian feeding his swarms from pits dug in the earth. The holes or pits were about 1 foot wide and deep, with a dish at the bottom; the hives were placed over them and kept warm; the syrup was poured into the dishes daily. Thus one season, just ten years ago, he created nine as good stocks as the eye of man ever beheld. “How much sugar did he use in making these nine stocks?” He told me he gave 25 lbs. to each hive. He sold above £50 worth of honey that year, and could well afford to buy £5 or £6 worth of sugar.

“In taking honey from heavy hives do you destroy the unhatched brood?” Yes, if we have plenty of bees without it; but if the hives are not plentifully filled with bees we endeavour to hatch the brood by fixing or placing the combs of brood (cut from the honeycombs) in a box or hive as regularly as we can, and casting a swarm amongst them, covering all up with a lid. Sometimes the brood combs of three large hives are placed in a box thus, and hatched by a single swarm. The bees thus hatched are invaluable for strengthening hives not strong in bees. “Do not the combs thus placed fall out?” They would if the box were turned up or placed on a board, but this is avoided by placing the board over the combs and not moving the box.

In unfavourable seasons the heaviest hives are most eligible for stocks. The bees of the weaker ones are made to strengthen the stronger ones. The bee-keeper’s aim should be to have all his stocks well filled with bees, and food enough in them to keep them till March.

When I took up my pen I intended to arrive at the most disagreeable thing in bee-keeping—viz., the taking of honey and wax, but that will have to stand over till next month.

One favour I have to ask of the readers of this Journal and the public generally: it is that they will not write so many

private letters to me. While I am anxious to promote apian science and help working men to make money from bee-keeping, I have not time to answer private communications. If the readers will kindly send their inquiries to the Editors I shall be greatly indebted, and some day perhaps I will give them my autobiography in acknowledgment of their considerate conduct. Twenty letters a-week about bees and so many postage stamps are a heavy tax for a working man to pay.

[Those who ask questions really must attend to this request, and our own to the same effect which appears at the head of answers to correspondents.—EDS.]

A great many letters lately have been written to ask how bees are driven and united. Doubtless many of these letters come from beginners who need instruction. For their benefit let me here repeat what will have to be repeated again and again before all apiarians are enlightened and advanced. When bees are to be driven their hives are first smoked—well smoked with fastian rags, then turned on their crowns, other hives empty placed on and over them, and a tablecloth rolled round the junction to keep in the bees. The bottom hive is now beaten with the open hand to cause the bees to run up. About fifteen or twenty minutes’ drumming will drive almost all the bees into the empty hive. A few stragglers that remain can be brushed out with a feather or killed with a puff of powder. Thus hives of honey are free from bees. The bees driven can be easily united to another hive by first pouring minted syrup over the combs and bees of the hive to receive them, and about twenty minutes afterwards the bees should be cast in amongst the combs and bees, and thus the union is accomplished frequently without the destruction of a bee. I heartily congratulate the apiarians of Great Britain and Ireland on their prospects of a large harvest of excellent honey.—A. PETTIGREW.

DOGS.—No. 4.

OFFICIAL DOGS.—(Continued.)

A MARK of a thorough good protective dog, who understands well his office, is that in whatever house his master and he are in, he protects that house because his master is there. Protective dogs are, as to varieties, very different, some very large, others very small; for the little pet of the house, whose barking cannot be stilled by the thief who seeks an entrance, is not to be despised. Nay, such dogs, if not allowed to get near an outer door or a window, where they may be either stupefied or poisoned, are more hated by burglars than large dogs, if these are simply chained outside a house where they are easily quieted. The sharp little Toy Terrier, the little Spaniel, the Maltese, the Toy Skye, the Pug, &c.—all these have a higher than fancy value if they are made dogs of protection, dogs of office. But let all owners of pet dogs remember that their dogs cannot be expected to be alert and useful at night if they are fed after the middle of the day. The wheezy, plethoric, dainty, crammed pet who will just condescend to eat rich food, and that late in the day, is sure to be enoring his apoplectic sleep, and not be awake and barking when wanted, and the thief may walk over his very nose. Oh! why will ladies overfeed their pet dogs? for so doing they destroy both their beauty and utility. Tastes, of course, differ in regard to dogs, and right and well it is that they do differ. One man prefers a large dog, himself often being small; while a six-foot burly man is devoted to dogs that he can put into his pocket. My own taste runs for concentrated strength, as seen in a Bull-terrier, at least, when wanting a protective dog; although, perhaps, the lone farm is better guarded by two dogs, a Bull-terrier, much hull, and a cross-bred Mastiff. These, if with a dash of Scotch Deerhound in them, are preferred by Australian settlers.

Occasionally, a few times in one’s life, the real use of a protective is brought strongly before us. Three years since I was driving late in the evening across Salisbury Plain, from Salisbury to Devizes. Excepting the Fen country, this perhaps is the dreariest ride in all England. The Druids—if they were Druids—rightly chose that situation for their hateful and bloody worship: the scene was suitable to the deed. I shudder now when I think of that supremely dreary ride. The land being poor, pasture farms are few—here one and there one, with vast barns and offices rising on the horizon, as ugly as the Plain itself, like ill-shaped warts on deformed horny knuckles. And as I approached each farm, oh! the barking of the dogs! that barking which is combined with tearing at the chain—mad, furious barking—that of dogs savage by long confinement. These were dogs protective indeed, and no chance had the pilferer or the burglar. I seemed to be in some half-civilised country, and if a group of blacks with spears in hand had crossed my path I should scarcely have been surprised. The value of such dogs as dogs of office in such a lonely place can hardly be over-estimated. As a hint, I would observe that brindle is the best colour of all for night dogs, the colour for the game-keeper’s protector, and for the farmer who goes his rounds at night. Brindle of some shades is also a rich handsome colour, and I regret that it is objected to on the show bench. This certainly is

a mistake. If that colour be not encouraged it will die out. All dogs of protection ought, I think, to be allowed to be prize dogs, and brindle be rather considered a qualification by a judge than otherwise. Further, all large and fierce dogs, and all, in fact, able to attack a thief or a poacher, ought to be thoroughly obedient: lacking that, they lack a controlling power in their master, without which their courage may become mere blind fury. This obedience may not of necessity be brought about by cruelty or even severity, for the dog regards his master as a kind of Homeric god: he is cowed by him, he reverences him, he is flattered by his praise, and miserable by his frown. Let the master only use discreetly his power over his dog, and he need not be cruel in order to be obeyed.

The dog in office—good useful brute—serving his master for a bone, and, for what he cares more, an approving pat; yet, though he holds office and fulfils its duties ably, I had almost written conscientiously, yet how pleased he is to be freed from office at times! Look at his vulgar-looking useful friend, the carrier's dog. His master comes to his inn at length—(who does not remember the carrier in "David Copperfield," that laconic lover with his "Barkis is willing?")—the horse, that old bony animal, with a bit of blood in him nevertheless, is put in with a jerk and general rattle of all the contents of the cart. They begin to move: the curate's books tilt the slender side of the mud-servant's handbox, making the flowers on the bonnet shake like a peal of bells, and the village grocer's hamper settles itself after many a creak. Then by a sign from his master old Pincher is allowed to be off duty, and he readily jumps off the cart. At once he is all life and good nature, scampering, jumping up at the horse's nose; now looking up at his master, now dashing rapidly on the road home, then returning, then saying a sweet word to a lady friend, and apparently assuring her she will see him again next market day. Why, the dog's quite changed because he is off duty. He remembers the soldier—a grim silent man when posted as sentinel; but see him walking in the park, he is another man quite.

Well, we all need to lay by office and its duties sometimes, dogs and men—men as well as dogs. The two points are to work well and then to rest well—work with a will, and recreate mind and body sensibly. Alas! that so many of my poorer friends, who work so hard and so well, yet take their recreation so foolishly, so degradingly! Ah! well, poor fellows! They are better than they used to be, that is one comfort. They do drink too much, but they are less cruel; they do not bull-bait, and hodge-bait, and cock-fight, and dog-fight as they did so generally "when George the Third was king."—WILTSHIRE RECTOR.

OUR LETTER BOX.

AGE OF BRAHMAS LAYING (P. P.).—We have had both Brahmas and Cochins laying at seventeen weeks old, but they are the exceptions. It has been a common thing at twenty weeks. These two breeds are the earliest we know. From many pullets of both breeds now more than twenty weeks old we have not yet an egg. We believe the drought, in making the surface of the earth sterile in the way of animal food, has a great influence in these things. Taking the average of many years, we should not look for eggs till they are twenty weeks old.

BRAHMA FEATHERS (F. L.).—The feather you have enclosed is that which would the least enable us to form an opinion as to the merit of your birds. We cannot imagine that the colour of a Wood Pigeon should have anything to do with that of a Dark Brahma. Being pencilled to the throat is a great virtue in plumage, but if the ground colour is bad it would not avail in competition. If they are Dark Brahmas they should be shown in the Dark Brahma class. If the colour is so exceptional that they are not like other birds of that breed, show them among the varieties. We cannot think the feather you send came from a pure Brahma.

SPANISH FOWLS (W. P. B.).—We know few fowls more attractive in appearance than good Spanish, but they will not stay at home unless they are in confinement. They are the Englishmen of the poultry yard; they are never at home but when they are abroad. We keep them, but they leave yard, orchard, stable manure, good grass run, and all that should make a place attractive, to damage the garden. We should in your place keep Brahmas, or if you object to them, we would keep Crève-Coeurs. The latter are not always at home, but with ten acres of grass we think they would be content. We, however, pin our faith to Brahmas. A little attention to common rules will make them answer every useful purpose, and do all that can reasonably be expected. The soft eggs show want of health and condition. The mortality is beyond all idea. If the hens died in laying, the food must have been of a most stimulating character. Such produces internal fever, and makes laying a dangerous operation.

VARIOUS (F. R.).—We cannot publish your letters.

PIGEONS AT BLACKBURN POULTRY SHOW.—Mr. Dalton writes correcting the mistake of our reporter in ascribing the first prize for Carrier hens to Mr. Stretch and not to him-elf. The awards, however, were correctly given in the accompanying prize list.

HOW TO OBTAIN HIGH-COLOURED CANARIES (T. L. S.).—The method to which you refer is that given by Messrs. Demore & Orme in our number for December 11th, 1873 and which was as follows:—"Reg. bicolor, and cayenne pepper. These are the whole of the ingredients used by us, which have proved so successful in producing the high colour so much admired."

DRIVING BEES (George Abberley).—Driving bees is done by turning their live upside down, and placing an empty hive of the same size over the other, rolling a tablecloth or calico sheet round the junction of the two hives to keep the bees in; then drum on the bottom hive with open hands for about fifteen or twenty minutes. The bees are thus driven from the bottom hive

into the top one. You should take the straw hive off the box and drive its bees into another hive, place them where they were before—on the top of the box, and take the honey from the straw one. Your other box hive could be enlarged to admit the bees now hanging out, or you could drive them all into an empty hive, and then feed them vigorously with a view to cause them to fill their hive with combs and brood before the season ends. Late turnouts should be well fed while they have a disposition to build combs and hatch brood.

BEES TURNING OUT GRUBS (E. Emlyn White).—No doubt the grubs are those of drones, and it is no uncommon thing for bees so to treat their male progeny. We do not think the "drought" had anything to do with it, although it is not considered good management to give bees more than one entrance. Either, as you surmise, the bees wanted storing room, or else they foresaw the end of the season and the further uselessness of drones.

LARGE LATE SWARM (J. W. P.).—Your swarm 6 lbs. in weight, of Saturday, July 25th, is much too late for all ordinary seasons and localities. But this is not an ordinary season, and you have been near you, so you may find them thrive well. We shall be glad to hear again as to their weight in three weeks' time. You cannot now prevent the other hive from swarming if so determined. Should they swarm, we advise you to return them, after cutting-out all royal cells visible in the old hive.

METEOROLOGICAL OBSERVATIONS,

CAMDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W.; Altitude 111 feet.

DATE.	9 A.M.				IN THE DAY.						Rain.
	Barometer at 3 p.m. and Sea Level.	Hygrometer.		Direction of Wind.	Temp. of Soil at 1 foot.	Shade Temperature.		Radiation Temperature			
		Dry.	Wet.			Max.	Min.	In sun.	On grass		
1874.	Inches.	deg.	deg.	W.	deg.	deg.	deg.	deg.	In.		
July	29.97	64.9	59.9	W.	61.2	75.4	49.1	126.3	40.0		
and	29.96	61.8	59.6	S.W.	61.4	72.3	49.7	132.2	47.6		
Aug.	30.100	65.1	60.0	W.	62.2	75.8	51.3	124.8	49.6		
We. 29	29.951	62.6	61.3	W.	63.4	72.4	50.4	92.2	58.2		
Th. 30	29.822	65.3	65.2	W.	63.2	72.8	50.7	121.0	56.8		
Fri. 31	29.9.8	61.2	56.1	N.W.	63.1	73.7	51.2	129.3	49.2		
Sat. 1	29.919	59.4	55.6	S.W.	63.0	69.8	50.3	79.1	47.6		
Sun. 2											
Mo. 3											
Tu. 4											
Means	29.93	61.9	59.7		62.5	73.7	53.0	115.0	0.295		

REMARKS.

29th.—Frequent, and in some cases, rather heavy showers, but on the whole a pleasant day; but rather stormlike evening.

30th.—Fine day, rather cloudy about 5 p.m.; but fine evening and night.

31st.—A very fine day, wind rather high; stormlike at night.

August 1st.—Rain in early morning, but soon clearing off; fine day, though somewhat cloudy; very close and damp evening.

2nd.—Rather dull morning; a very oppressive day, with sudden puffs of wind, and at times a few large drops of rain.

3rd.—A most delightful day, bright, dry, and cool.

4th.—Dull morning; frequent showers, one very heavy for a very short time between 4 and 5 p.m.; fair evening.

The mean temperature nearly identical with that of last week, but some of the days being damp and stormlike were very oppressive, and made it seem warmer than it really was. Some of the recent storms have been felt here; the rain that has fallen has lowered the underground temperature about 3°.—G. J. SIMONS.

COVENT GARDEN MARKET.—AUGUST 5.

SUPPLY moderate this week, and prices remain much the same as last. Importations are large, comprising Peaches, Nectarines, Apricots, Green Gage Plums, and several varieties of common Plums.

FRUIT.

	s.	d.	s.	d.		s.	d.	s.	d.	
Apples.....	1	0	1	0	Mulberries.....	1	0	1	0	
Apricots.....	doz.	2	0	0	Nectarines.....	doz.	6	0	15	0
Cherries.....	1	0	6	1	Oranges.....	1	0	10	0	
Chestnuts.....	bushel	0	0	0	Peaches.....	doz.	6	0	21	0
Currants.....	1	0	0	0	Pears, kitchen.....	doz.	0	0	0	0
Black.....	doz.	5	0	0	dessert.....	doz.	2	0	8	0
Figs.....	doz.	3	0	8	Pine Apples.....	lb.	2	0	6	0
Guavas.....	lb.	1	0	1	Plums.....	1	0	4	0	
Cons.....	lb.	1	0	1	Quinces.....	doz.	0	0	0	0
Gooseberries.....	quart	0	6	0	Raspberries.....	lb.	0	0	0	0
Grapes, household.....	lb.	1	6	0	Strawberries.....	1	0	3	0	
Lemons.....	1	0	12	0	Walnuts.....	bushel	10	0	16	0
Melons.....	each	4	0	8	ditto.....	1	0	2	0	

VEGETABLES.

		s.	d.	s.	d.			s.	d.	s.	d.
Artichokes.....	doz.	3	0	6		Lettuce.....	doz.	1	0	2	0
Asparagus.....	1	0	0	8		Miseroons.....	potte	2	0	8	0
French.....	0	0	0	0		Mustard & Cress.....	punnet	0	2	0	0
Beans, Kidney.....	1	0	3	0		Onions.....	bushel	4	0	7	0
Broad.....	bushel	4	0	0		Pickling.....	quart	0	6	0	0
Beet, Red.....	doz	1	0	8		Parsley per doz. bunches.....	2	0	4	0	0
Broccoli.....	bushel	0	9	1		Parsnips.....	doz.	0	9	1	0
Cabbage.....	doz.	2	0	3		Pears.....	quart	1	0	1	6
Capstems.....	1	0	10	0		Potatoes.....	bushel	8	0	6	0
Carrots.....	bunch	0	6	1		Kidney.....	doz.	4	0	8	0
Cauliflower.....	doz.	3	0	6		New.....	1	0	0	0	
Celery.....	bushel	1	6	2		Radishes.....	doz. bunches	1	0	1	6
Coleworts.....	doz. bunches	2	8	4		Rhubarb.....	bushel	0	9	1	0
Cucumbers.....	doz.	0	0	0		Salsify.....	bushel	2	0	0	0
Endive.....	doz.	2	0	0		Scorzonera.....	bushel	1	0	0	0
Fennel.....	bunch	0	3	0		Sea-Kale.....	basket	0	0	0	0
Garlic.....	lb.	0	6	0		Shallots.....	lb.	0	3	0	0
Herbs.....	bunch	0	8	0		Spinach.....	bushel	2	0	8	0
Horseradish.....	bushel	3	0	4		Tomatoes.....	doz.	1	0	3	0
Leeks.....	doz.	0	3	0		Turnips.....	bunch	0	3	6	4
						Vegetable Marrows.....	doz.	2	0	3	0

WEEKLY CALENDAR.

Day of Month.	Day of Week.	AUGUST 13—19, 1874.	Average Temperature near London.			Rain in 43 years.	Sun Rises		Sun Sets.		Moon Rises.		Moon Sets.		Moon's Age.	Clock before Sun.		Day of Year.
			Day.	Night.	Mean.		m.	h.	m.	h.	m.	h.	m.	h.		m.	s.	
13	Th	Tannton Deane Horticultural Show closes.	74.5	50.0	62.3	19	4	44	27	47	46	5	20	8	1	4	38	225
14	F	Birmingham Horticultural Show.	72.9	50.8	61.8	18	45	4	25	7	0	7	32	8	2	4	27	226
15	S		73.1	50.0	61.6	17	47	4	23	7	11	8	42	8	3	4	16	227
16	SEN	11 SUNDAY AFTER TRINITY.	73.0	51.5	62.2	21	49	4	21	7	21	9	52	8	4	4	4	228
17	M	Hunslet Horticultural Show.	72.7	50.1	61.4	23	50	4	19	7	31	10	3	9	5	3	52	229
18	Tu		73.2	50.7	62.0	16	52	4	17	7	42	11	16	9	6	3	39	230
19	W	Royal Horticultural Society, Fruit, Floral, and General Meeting.	73.1	49.3	61.2	21	53	4	16	7	after.		31	9	7	3	26	231

From observations taken near London during forty-three years, the average day temperature of the week is 73.3°; and its night temperature 50.3°. The greatest heat was 92°, on the 18th, 1842; and the lowest cold 36°, on the 18th, 1865. The greatest fall of rain was 1.12 inch.

FAILURES.



WAS much interested and amused by the letter of an old gardener in last week's Journal, who complains that while there are no end of men who write about their successes, none write about their failures. Allow me, then, to make a beginning, and write about my failures. It is not, I am sorry to say, a difficult subject; it by no means presents that bewildering maddening doubt which week by week assails me—

“What am I to preach about this time?” I have loads and loads of failures to choose from, and not one of them have I ever described. Let me begin with one which your correspondent himself mentions—viz., fruit trees.

Here, I believe, I am in much the same position as your correspondent. I have a light poor soil, a favoured sheltered position, a lovely climate, plenty of walls, and yet I cannot produce a Peach or an Apricot, a Plum or a Cherry. I am the possessor of 100 yards of wall, and I have never had above a dozen Peaches since I came here. This year I have had exactly seven, three of which were of the size of a Green Gage; and yet it is not that I have taken no pains, for I have done every mortal thing I could think of to ensure a fruit crop. I have taken up all the old worn-out trees, prepared the borders according to the best rules, planted good sorts, and have watered, and washed, and protected, and fussed and fumed, and wept and howled, but all to no purpose. I never have fruit, and I do not think I ever shall, unless some kind friend will take pity on me, and tell me what is wrong. When this place was built twenty-five years ago the crop of Peaches used to be so great that the clerical society of this neighbourhood always used to fix their meetings at this house when the Peaches were ripe, and now they do not come at all, and I do not blame them. In fact, I am afraid my Peach failures had a great deal to do with causing the death of that society, for it began to languish about the time the Peaches gave signs of failing, and it is now defunct; and although a new one has since, phoenix like, risen on its ashes, it knows not me, for my Peaches “are not.”

As to the cause of my failure, the only one I can think of is the exceedingly late frosts, which not only destroy the bloom, but also kill the young wood. Every succeeding year here the frosts have been later and later, till this year we had a severe one on the 8th of June. How can tender fruit trees like the Peach stand such changes of temperature as our climate groans under? We cannot expect them to do so, and the only course that I can see is that recommended by a neighbour of mine—“When-ever a Peach tree becomes old I replace it with a Pear.” (Please spell the word right, for the neighbour in question is such a tremendous punster that he would be too delighted to see it misspelt.) These do well here in most places, and it is best to cultivate fruit which, though inferior in quality,—though, I believe, many would deny this—is superior in every other way, but most of all in its

hardy nature. But yet it is very distressing to give up the Peach and Nectarine, and I hope that some kind friend will come to the rescue, and tell us how we may grow the Peach in the open with a fair chance of success. Any hints as to pruning, protecting, watering, and washing will be esteemed as a great boon by, I should think, many others besides—JOHN B. M. CAMM, Monkton Wyld.

I CANNOT say with Mr. Pewtress that I am a young gardener, for my garden was planted in 1862, and I have watched the coming seasons year after year with something of the feeling of drawing a prize in a lottery—hope and fear. My garden is situate on a northern slope, so I cannot attribute the failure to too early blossoming; besides, this part of North Hants has the reputation of being always backward. The protection afforded to the grounds would appear perfect. On the north and east are planted (now fine-grown trees) *Pinus austriaca*, tall Filberts, and between them a thick Quickset hedge, and on the south and west there is a good wall. The place looks snug enough. The trees grown are pyramids and bushes, and appear to be in perfect health.

My man generally in May writes to me to come and see the garden, which is then a perfect garland (to use his own words); and I may say it is my chief gratification once in the year to travel fifty-four miles if only to view this lovely and beautiful picture, and our hopes then begin to brighten up when the old man surveys the grand effect, and exclaims with pride, “I think, sir, there is no doubt about fruit this season.” But alas! how frequently our hopes, like trees, are blighted. Look at the garden now (August), compare it with the month of May; “look on this picture and on that,” not a fruit of any kind—Pears, Apples, Plums, Cherries, all a failure. I prune and pinch according to orders, still the trees grow and bloom, and have done nothing more for the last three or four years. Your correspondent Mr. Pewtress thinks if he could retard the early blooming all would be well. Perhaps so; but here mine is a case of what you might suppose to be proper backwardness, and the result the same—no fruit. People say, “Have patience, when the season is favourable there will be plenty of fruit,” but I am getting old; and when I first planted the garden great pains were taken to buy of nurserymen of good repute, whose catalogues I would peruse, reading the descriptions of delicious fruit until my mouth watered. Now, after twelve years' growth I walk despondingly round the garden looking on nothing but green leaves until my eyes water.—J. LOVELL, Overton, Hants.

PRESERVING FRUITS.

“WELL, Mr. Green, if you don't know when Cherries are dry enough to gather you had better ask someone who does; those you have sent in are as wet as possible.”

“I can assure you, Mrs. Bouncer, they were perfectly dry when gathered half an hour ago.”

“No, you cannot assure me of anything of the kind;

if they were dry when they were gathered they would be dry now. I have not preserved fruit these twenty years without knowing something about it, and I am sure I never had any sent-in in such a state till you came here. I don't know what we are coming to;" and the good old lady sighed in despair.

The fact was the Cherries had been perfectly dry when gathered, but it was a comparatively cool summer day, and they were taken into a heated room for bottling, where the moisture immediately condensed on the fruit, and in a few seconds it became as thoroughly wet as if it had been in a shower of rain. Had Mrs. B. remained a little longer upstairs till the fruit became warm through, all would have been right in the good lady's eyes; but as it was, the fruit in her opinion was entirely spoilt, and Mr. Green "was no gardener."

This is no imaginary picture, although I am happy to say it was not my personal experience. The genus to which Mrs. Bouncer belongs would not flourish here, it requires special culture. Half the fruit that is preserved (?) in some private establishments is spoilt through inattention to, or want of knowledge of, such apparent little matters as the one I am attempting to point out. Sometimes it is the bottles or jars that are brought in from a cold place and immediately filled, and sometimes the fruit is allowed to remain uncovered in the bottles in a variable temperature for a considerable time before being corked down. Mrs. Bouncer is a most careful person, but somehow she generally manages to bottle up more water with the fruit than is good for its keeping, and then after a few weeks she cannot understand how it is that the mould appears; but the storeroom and the gardener will probably have to share the blame between them. Mr. Green's vineries—when the Grapes were ripening, and the sun raised the temperature suddenly before he could get at the ventilators—have given him more practical lessons on the subject than the poor man was in need of; but it is of no use for Mr. Green to understand the subject unless he can manage to convince Mrs. Bouncer, and that is no easy matter.

For bottling fruit to keep well, it is necessary that it should be corked up perfectly dry, using the best corks procurable. If it is placed over the fire at all (most fruits that are usually bottled will keep perfectly well without this), the water should not quite boil, but merely begin to rise in small bubbles, when the fire should be drawn, or the preserving pan taken carefully off and allowed to become quite cold before the bottles are removed. Now, all this care is imperatively necessary for preserving fruits whole in bottles for tarts, ices, &c.; but, on the other hand, for making jams and jellies, if the fruit is boiled directly it is gathered, and not allowed to stand about till it begins to decay, it matters not how wet it is—in fact, in a dry summer when the fruits are comparatively short of juice it is a great improvement to add a little water before boiling. No one need be timid about this, because a moment's reflection will show that during the process of boiling in an open vessel all the water is quickly evaporated, and if there is no water to evaporate, of course some of the juice of the fruit will be lost.

I am surprised that amongst the varieties of Strawberries that have been lately recommended for preserving, I have not seen any mention of the old Grove End Scarlet. I certainly do not know any other kind half so good for the purpose. I suppose it is on account of its small size that it is not more grown; but what it lacks in size it makes up in numbers—in a good season it averages at least a pint of fruit to a plant. The jam made from it is of a good colour, of good flavour, and of even consistency: all the fruit breaks up in boiling, there are no lumps. A fruit for making jam or jelly ought always to be acid; I think no one ever complains that jam is not sweet enough. It should also be of a decided colour; most large-growing Strawberries are light-coloured inside, and therefore cannot produce red jam. Vis-comtesse Hériart de Thury is of a good colour throughout, and is a prodigious bearer, but when made in jam its seeds are too numerous and prominent.

Is there a recognised but variety of the Morello Cherry? One tree I have amongst others was last year a fortnight later in ripening its fruit than the rest; there is a difference this year, but I am afraid it is not so marked.—W. TAYLOR.

SEEDLING BRIAR STOCKS.

MR. CAMM, at page 118, speaks highly of the seedling Briar as a stock for late blooms of Roses. Will you allow me to inquire whether these seedling Briars are raised from English-grown seed or from imported seed, or are the stocks themselves imported from France? I ask because, from something

which a noted rosarian told me a few weeks ago, I am inclined to think the seedling Briars are imported from France. If they are, whence can amateurs get supplied?—P.

THE KITCHEN GARDEN.—No. 10.

IN laying out the area of a garden there is more economy in plainness and simplicity of arrangement, both in the present and in the after management, than there is ever likely to be in striking-out those peculiar figures, such as oval and circular shapes, for the sake of combining ornamentation. It would require a large scope of ground for a gardener to make the latter plan appreciated, because a vast deal more space would be taken-up by a multiplicity of walks, &c., to say nothing of the extra amount of labour involved in cropping, and the design must be large and bold to be seen to advantage when every quarter is cropped. A fruit garden so arranged might be more in character; but for a fruit and vegetable garden combined, such as our amateurs are likely to require, the plainer the arrangement the better, especially when on a small scale, and where it is so necessary that every foot of space should be made the most of.

The first thing to be thought about is the borders and the width they are to be struck out. The rule is, and I think it will generally bear criticism, to make them the width of the height of the wall, but in some instances I think it would be an advantage to depart from it; for instance, if the garden should be a parallelogram in shape, and the walls all 8 feet high, I think the south borders ought to be 10 or 12 feet wide, or even more than that if the situation and soil are good, and the remainder of the borders may be of a width equal to the height of the walls; but if the length of the parallelogram should run directly north and south, I would set off two borders, the first one to be not less than 12 feet in width, and the other about 20 feet wide, both running parallel with the wall, the second border being divided from the other by a properly-made walk. This would be found an excellent additional piece of ground to prepare for the growth of early vegetables, and is rendered necessary, I consider, from the position of the garden, it having but a small southern aspect compared with the others.

The work of setting out the borders is very simple. Running as they do parallel with the walls, it is only to measure-off the desired width from these and strike them out with line, stakes, and spade; and then the walks ought to intervene between the borders and the centre of the garden, which is the remaining portion to be divided off. Here let me observe, that although it is absolutely necessary to have a walk running round the interior of the garden as above indicated, and to which those from each entrance should communicate, it is a great fault to have too many in other directions, as is seen in some gardens. It is a waste of ground for very little purpose; and in small gardens of an acre it is a question whether one other walk running through the centre would not suffice for all purposes, or at most there ought only to be two walks intersecting each other in the centre of the garden, dividing it into four compartments instead of two. This is a matter, however, upon which the proprietor would be the best judge, and the situation and means of access to the garden would afford him a guide. In some cases where there is an object in the centre to which it would be desirable to have easy communication I would say, by all means make the most of it. Or it may be that the principal supply of water is to be obtained from the centre of the garden: if so, the more facilities for access to it the more advantageous it will be, provided these be not overdone.

Enough has been said to show that the garden should be divided into compartments in the most careful manner, having regard always to that plan which is likely to prove the most convenient and useful according to the situation, means of access, and other circumstances which it is sometimes not possible for a person to foresee and provide for unless on the spot.

To take things in their regular order, the next thing to be considered is the width of the walks and their formation. I have so far been advocating as few walks as possible, and I think it proper to make those few as wide as can be done, paying due regard to three things that will always be appreciated—viz., the facilities for conveying materials to and from the ground, and the comfort of those who visit it, as well as the size of the garden. For the first two purposes the walks ought not to be less than 5 feet wide, which will allow two barrows to pass each other easily, or if a small pony cart is

used this width will suffice, whilst two persons can very comfortably walk side by side on a path 5 feet wide. Now we come to the size of the garden, for which, if small, very wide paths would look objectionable, besides taking up unnecessary space. For a garden of an acre none of the walks should exceed 6 feet, and this width might be allotted to the main walk if found necessary to have one; and I should advise a little difference in them, such as those leading to any particular place or object, leaving the others narrower. Many have their walks 4 feet wide or even less, but I prefer to see a few walks properly arranged for comfort, as stated above, and if more are needed let them be temporary workmen's walks merely cut out in the ground and dug-up again when not wanted.

Next comes their formation, and this is not a very difficult matter in some localities, while in others it is so. I am an advocate for their being made well. There are three or more kinds in general use: there are the old-fashioned gravel walks, asphalt walks, and those made of concrete. Grass walks, though sometimes used, are becoming less common. To have a firm smooth gravel walk is the pride of many, but owing to the scarcity of good binding gravel other modes are resorted to when it cannot be obtained without a great outlay. In heavy soils, or in low situations, to make a good walk the soil should be taken out quite 18 inches, or even more, and the bed of the walk made hollow in the middle, in which should be laid a substantial pipe drain. The whole should be covered with at least 1 foot of rough rubble, such as broken brick, stone, clinkers, and then with 3 inches thick of broken materials of a similar kind, all well beaten down; afterwards put on 2 inches of fine gravel and roll it, then finish off with another inch of the same material, and roll that. While the first layer of coarse material is being formed, take care to keep the centre of the walk the highest, so that the layers may all be of uniform thickness, and they are not then likely to give way easily. The above will make a good walk; but, if necessary, or if material is plentiful, the walks may be made more substantially by excavating deeply and making thicker layers. It sometimes happens that gravel cannot be obtained, in which case a substitute must be found. Coal ashes sifted fine, or road sand, may be used. The only objection to the former is their colour, otherwise they are always dry, if on a prepared bottom, and likewise clean. I am compelled to use them for the kitchen garden, and like them because they are not affected by frost so much as other materials. Road sand is also clean, but often wants renewing, and is affected by frost; if laid on moderately wet and afterwards rolled it hardens considerably, and makes a tolerably good surface to a walk.—THOMAS RECORD.

DESIRABLE PLANTS FOR BEDDING.

MANY of your readers, like myself, no doubt require some ten or fifteen dozen plants every spring for bedding purposes. Whether it is cheaper to provide a greenhouse for the purpose of saving such a number, or to purchase a fresh supply annually, is a question into which I will not enter; but with myself the saving of trouble leads me to prefer the latter way. Purchasing has likewise the advantage, that if you meet with anything that takes your fancy you can be supplied with it at a moment's notice in any quantity at reasonable prices.

As regards Geraniums, four years ago I tried six dozen Vesuvius; next I tried the same quantity of Jean Sisley, and last year I had Omega, but this year I have come back again to Jean Sisley; and being particularly fond of bright distinct colours with other corresponding qualities, Jean Sisley is that which I prefer. Of the Tricolors none that I have yet tried grow with that robustness which is necessary to keep up a constant pleasing effect. This year I have Lady Cullum, and if there is a better for my purpose I should only be glad to hear of it. Of the Golden-leaved I have Crystal Palace Gem; and though it is of slow growth it is a very pleasing kind, and another year, with a little more rich soil in the beds, it will, I think, be more to my taste. I am particularly fond of good Bronzes, and this year obtained two dozen of Black Douglas, which are now such splendid plants (foliage only), that I should hardly know how sufficiently to praise them, the growth being robust, and the colour really superb.

This brings me to, in my lot, the flower of the season—Cannell's Lustrous Lobelia. Oh, what a gem! Pray allow me to give this little picture its due, for amid flowers for bedding purposes it is all the heart can desire. You have compactness, free blooming, and such an intensity of colour as most cer-

tainly in all my travels I never previously beheld. For edging I use Golden Feather Pyrethrum and Lobelia fresh planted every season, with colours nicely balanced; and with a few other little nienacs I contrive to derive a succession of pleasure from what is within the reach of many, if they so will, one of the treasures of the earth—a sweet little garden.—JOSEPH WITHERSPOON.

HALF AN HOUR AT CANNELL'S.

A BRIEF record of a visit to this floral bee-hive may not be absolutely devoid of interest. It is the little centre of a great business—the little head of a trade ramification embracing not only the whole of Britain, but extending to the continents of Europe and America, and even to the antipodes. One must travel far and wide to find so much business of its kind, and such an extensive collection of popular plants compressed into a space so small as may be seen on the railway embankment of Woolwich Dockyard station.

When last at this bee-hive it was weak—a very small infantile affair; now it is strong, overgrown, enclosed as with an iron band by boundaries impregnable. It has grown and spread over the property of eight or nine landlords until it can grow no longer there; and Mr. Cannell, on the very day of my visit, was negotiating the purchase of several acres of land whereon to "swarm" with all his host. This is one of the successes in business founded entirely on energy, perseverance, sound trade principles, and professional skill. Mr. Cannell is a man of nerve, self-reliance, quick decision, and great activity. He is in many respects an original. He struck out a new line by making the post office the chief medium of transport for his wares. He, a lover of plants, yet not rich, thought there might be thousands like him, and therefore offered small plants at small prices; he let the world know it, and the thousands came. His trade lists are "guides," and have a sniff of originality about them. His essays are not quite like those of other folk in language, and in idea often different to those of other men. His boilers are "circulators," and instead of heating by orthodox water pipes in the orthodox way—along the sides, floor, and under stages, he suspends the hot water in gas pipes along the roof and just underneath the glass of his houses and pits. Truly this is a bold innovation.

I will now take a glance at the place and its contents, and a selection of plants which have merit to recommend them will occupy disposable space. If he who doubts the produce of the soil is a benefactor, then Mr. Cannell holds honourable position amongst cultivators. What was no long time ago a hard, dry, barren slope of rubbish now teems with floral life—a selection of the best varieties extant of typical popular plants, in immense numbers, and of great value. The place may be said to be covered with glass, consisting of light span-roofed houses and a great extent of low pits—that is, about 2½ feet deep at the back by 1½ in front—the very places for the well-being of their hundreds of thousands of little occupants. What strikes one at a glance is the prevailing health and cleanliness of the vast array of small plants. There is no question as to their being well tended. Their order of arrangement, too, is simple and effectual, the nursery being, in fact, an exact counterpart of the catalogue. Turn from a page of the list containing the names to the corresponding page in the nursery, and you see the plants. The stock in trade of any given kind is thus seen at a glance, and there is no time lost in hunting for any particular thing wanted. Not only are plant-loving amateurs supplied with their dozens in little post-boxes, but thousands are also here manufactured for the trade. It is curious to see the run on particular things, in some of which it is almost impossible to keep pace with the demand, while of others a small stock suffices. From this little spot have first issued to the world many varieties of plants of great merit, especially amongst Fuchsias and Pelargoniums, of which the store is very extensive and good. So numerous, in fact, are the varieties offered, that is a no small difficulty with many to select a few dozens. This indeed is felt as one of the greatest obstacles of many intending purchasers, who only purchase a few plants at a time, and who desire them free, distinct, and good. By way of aiding these, and imparting an element of usefulness to this communication, I append a few that may be relied on, not because they are new or old, or cheap or dear, but because they possess merit and give value for money.

Commencing with the plants that have made the place famous—viz., Fuchsias, the following are good in their re-

spective sections:—With *white tube and sepals*: Guiding Star, Mrs. J. Live, Minnie Banks, Our Futuro Queen, Baroness Burdett Coutts, Princess Beatrice; and for the largest bloom, Arabella Improved; and for covering space or pillars, Lustre. *White-corolla'd* (single): Delight, Mrs. L. Bennett, Cannell's Gem. *White ditto* (double): Marchioness of Aylesbury, Little Alice, Avalanche. *Darks* (double): Avalanche, Alpha, Marksman, King of Doubles, the old Blue Beauty; and for size, Champion of the World. *Darks* (single): Enoch Arden, Tryme-Oh, Crown Prince of Prussia, Father Ignatius, Mr. R. Pexton, Killiecrankie, and as a little gem, La Traviata. Of *Sels*: Sedan is one of the best. Of *Stripes* (dark): Striata Splendour, light; Striata perfecta. *Variegated* (foliage): Sunray and Regalia. To make the list longer might be to make it less useful; those named all possess decorative merit, and are inexpensive. Cannell's great gem this year, but perhaps, considering its name, I had better say great mainstay, is Mrs. E. Cannell. The name should be a guarantee of the excellence of this Fuchsia. I have not seen it in bloom.

Looking at the Pelargoniums one is fairly bewildered by the variety. Dividing them into sections, the following are noted as the cream:—*Gold Tricolors*.—The best new ones are Mrs. H. Little, J. Downie, Gem of Tricolors, and Miss Goring. Older and less-expensive kinds: Peter Grieve, Prince of Wales, Sir R. Napier, Mrs. Punnett, Achievement, and Macbeth. *Silver Tricolors*.—New ones: Dolly Varden, Mrs. Laing, and Lady Dorothy Nevill. Older varieties: Lass o' Gowrie, Mrs. Col. Wilkinson, Prince Silverwings. *Gold Bicolors*.—The newer ones: Prince Arthur, W. E. Gumbleton, Mr. and Mrs. Harrison Weir, are very telling. Less costly, because older and more plentiful: Marshal MacMahon, Black Douglas, Reine Victoria, Mrs. John Lee, and Emperor of Brazil; while Golden Harry Heever, by its diminutive growth, will be in demand for bedding. Of *White-edged* bedding kinds: Princess Alexandra, May Queen, Pearl, and (creamy) Queen of Queens. Ditto with white flowers: Mrs. J. C. Mappin and Waltham Bride. We now stop to look at a curious striped-flowered Zonal with a curious name, Killisch Von Horn; and another Fancy with white-blotched petals, Mrs. Smith. Amongst *doubles*: Jewel, Prefet de Lyon, M. Dumortier, Emilio Castelar, and Asa Grey must have honourable mention.

We now come to the grand array of *Zonals* for pot-culture, the most useful production of modern times, proof against insects, and determined to grow and bloom freely. Of the new ones: Dr. Sharp (purplish), and Rienzi, Dr. Denny's fine soft scarlet zonal, must march abreast at the head of the column, followed by Harry King, H. Greely, Mrs. Bizard, Truth, Mrs. Chandler, Darkness, Jessica, Circulator, Corsair, Glitter, Purple Prince, Sir C. Napier, Heartsease, with an array of others hard to cast aside. Of bright *bedding Zonals*: Jean Sisley, Flamingo, Omega, Vesuvius, and Cannell's Dwarf are amongst the best. Of various-tinted Pinks, Master Christine must head the list in company of Amaranth, Maize, Mrs. R. Hole, and Mrs. Upton. The best of the Whites is, perhaps, White Clipper, closely followed by The Bride. But there is yet another class unrivalled for bedding, and some for pots. Of the former: Triomphe de Stella, Charlie Cashon, Violet Hill, Vesta, and Crimson King possess great merit; while Brindley, Overall, Princess of Wales, L. Heywood, Mr. Gladstone, C. Dickens, J. George, Matilda, Col. Holden, &c., are all worthy of a place in-doors and out.

The above list of Geraniums—a very select one from a very long one—may be useful to those essaying the culture of these useful plants. It is reliable, and contains colours to suit all tastes, at prices to suit all pockets. Mr. Cannell grows Verbenas in great number, clean and healthy, but space prohibits any elimination.

Violas are evidently in demand, Cornuta Perfection, C. Sensation, and the new Queen Victoria having a great run. Lobelias are still popular as ever, and increasing in variety. Of Mr. Cannell's great batch, Lustrous is the best of all the darks, in colour superior to any, in habit intermediate between the speciosa and pumila types, and more constant and continuous in bloom than either; Cobalt Blue is excellent; Charming—well, its name speaks truly. Succulents are in great numbers and variety, Echeveria tabuleformis being much in request. It is curious to note the popular taste in plants, which can never be so well arrived at as in a plant manufactory. I will name just one more plant, which would seem to be running the stock off its legs, easy as it is to be raised by hundreds of thousands—viz., Stellaria graminea aurea. It is a soft yet clear and decided yellow edging plant of dwarf dense habit,

It is the first real rival the Golden-Feather has met with. It is going somewhere in immense numbers, and we shall hear of its merits as the season progresses. It is a plant of promise, free, easy of increase, and effective. Need it be said that in this floricultural hive all is business and activity? Such labour, enterprise, and persevering effort ought to result in a grand harvest of emolument to the proprietor.—J. W. B.

NOVELTIES IN THE ROYAL GARDENS, KEW.

MUSA SUPERBA is planted with good effect on one end of the rockwork. It is of importance as a fine-foliaged plant for the greenhouse and the open air in summer. For these purposes it has been but little used. It deserves attention from its dwarf habit, and the great recommendation that it can be dried off and stored under stages or in other convenient places for the winter. When at rest the plants are like large bulbs, and in this condition might be imported by the hundred, cutting off the leaves, if any. When required to start in spring they should be repotted in rich loam. A warm house is needful at first, but when beginning to grow freely they may be hardened off for the greenhouse, and for sheltered positions in the open air when all danger of frost is over.

Bowiea volubilis is a very interesting Cape Liliaceous bulb, planted against the wall of the new range. It has been there without other protection during the past winter, and is now in flower. The inflorescence branches indefinitely, is twining, and many feet long. The branches are green and succulent, and do not all bear flowers, but apparently perform the same function as the leaves. These are two in number, produced before the inflorescence, and die away as it grows. Seeds are freely produced; they should be sown in sandy soil. The young plants will soon appear, and should be allowed to complete their first growth in the seed-pot. When inclined to grow after rest they may be potted off singly in small 60-pots. As regards water, the method of giving it should be the same as for other Cape bulbs. Bowiea volubilis, from its graceful habit of growth and unique character, is suitable for all collections. It does well in a cold frame or greenhouse.

Phygellus capensis var. major is very handsome, with large panicles of scarlet flowers. Though quite hardy, it is, doubtless, improved by being against a wall. It is easily increased by means of cuttings.

ROSES OLD AND NEW.

It is said of Oxford that it is so learned a place because so much learning is carried there and so little is brought away! Rosarians are a learned body, and the reason is they keep so much learning to themselves. I always look to the index for the word "Roses," and if it is not there I drop "our Journal" for awhile. Much cannot be said at this flagging period of the season, but still something may be said. I propose to speak

Firstly, of good old Roses still retained here, and that have seen the death and exit of many hundred Roses. They are—Baronne Prevost, La Ville de St. Denis, William Griffiths, Aicalie, Souvenir de la Malmaison, Souvenir de la Reine d'Angleterre, Triomphe de Paris, Madame Louise Carique, Alexandrine Bachmeteff, and Madame Campbell. Madame Louise Carique is a capital pole and wall Rose. All these Roses have been under my care for many years; they are stalwart bushes on the Manetti stock; they have seen the death or exit from the catalogue of many hundreds of Roses. Surely "a living dog is better than a dead lion!"

Secondly, the best Roses from the year 1863:—Pierre Notting, Madame V. Verdier, Lord Macaulay, Leopold Premier; they are all first-rate. 1864—Marguerite de St. Amand, Maréchal Niel, Duchesse de Caylus, Dr. Andry; all first-rate. 1865—Marie Bady, Abel Grand, Alfred Colomb; all first-class. These are very good—Fisher Holmes and Prince de Portia. 1866—Felix Genero, Madame Margottin; first-rate. These are good—Annie Wood, Black Prince, Monsieur Noman, Princess Mary of Cambridge. 1867—Baroness Rothschild; it wants scent and a little more fulness, but is very handsome. 1868—Edward Morren, first-rate. These are very good—Madame Creyton, Perfection de Lyon, and Thyra Hammerick.

I do not know the dates of the following, but they are very good:—Devienne Lamy, Vicomtesse de Vézins, Baron Chaurand, one of the very best dark Roses; Louis Van Houtte (Lacharme), Baron de Bonstetten, Maxime de la Rocheterie, Baroness Louise Uskull, Madame George Schwartz, Etienne Levet, very fine; Pierre Seletzky, Félicien David, and Claude Levet. The

last I hope will be full enough; it is very handsome as an opening bud—a first-rate button-hole Rose. Allowance—I have made but little—should be made for “infants” on comparatively weak stocks, especially as they had a bad season for establishment. I have Ducher's Van Houtte; it is quite distinct and good. I am surprised that such a nice crimson-purple Rose as Baronne Pelletan de Kinkelin should have gone out. It is like, but very superior to, Eugene Verdier and André Leroy d'Angers. It is a good grower and free bloomer both on Manetti and on its own roots. Mr. Turner kindly gave them both to me with others many years ago. I do not think Ducher's Van Houtte or Madame Masson (Gloire de Chatillon is the same) should have gone out. We want not only good Roses, but better than those we have, and distinct from these. To persons liking dark Roses I specially recommend Louis Van Houtte (Laeharne), Baron Chaurand, Maxime de la Rochetiere, full-sized, and Baron de Bonstetten. The Roses here have done splendidly, and are very healthy.—W. F. RADCLIFFE.

NOTES ON STRAWBERRIES.

IN No. 694 of THE JOURNAL OF HORTICULTURE Mr. John Taylor, Hardwicke Grange, recommends several sorts of Strawberries for preserving, but I believe the only best for that purpose is *La Constante*. The fruit is of a dark red colour, of excellent flavour, of firm substance, and of medium size.

Several times I saw in this Journal recommended Keena's Seedling and Black Prince, and tried them therefore, but I found them scarcely worth gathering. For forcing, as well for general purposes, I prefer Early Prolific, Sir Joseph Paxton, and President. To grow large fruits I take Unser Fritz (Gloëde) (Our Frederick, the Crown Prince of Germany), I daresay there is no larger and finer variety than this. Dr. Hogg and Cockcomb follow in size, and both are of delightful flavour.—A. P., Germany.

IN AND OUT OF ABERYSTWITH.—No. 3.

I HAVE seen some of the most celebrated of waterfalls in England, that of Lauterbrunnen in Switzerland, and that of James' Town in St. Helena, but never did I comprehend how the grand and the beautiful might be combined with and aided by such a down-rush of water, until I saw that at the Devil's Bridge, twelve miles from this town. This waterfall is the only one I know descending hundreds of feet through mountain rocks, wildly arranged, mostly approaching the perpendicular, yet clothed thickly with Oaks and the most luxuriant of undershrubs and wood plants. The Swiss and the St. Helena waterfalls descend from heights as lofty, perhaps loftier than this, but they are merely bare streams of water—not a break in their entire length—not a shrub on the face of the rocks from the summits of which they descend, and viewed from a distance they look like great lengths of white ribbon waving in the wind. The Devil's Bridge waterfall descends between huge masses of rock by four leaps, and then joins the river Rheidol by a fifth. These are respectively 18, 60, 20, 110, and 70 feet in length, and each leap ends in a rocky chamber, one of which is so rounded by the whirl of waters as to be named the Devil's Punch-bowl. Every leap is varied by jutting rocks, and each descends amid trees and shrubs which afford most effective dark bounds to the white foaming water. Anyone intending to arrange an artificial cascade would do well to visit this waterfall, not in the hope of copying even the smallest of its leaps, but to observe the need—the unescapable need—if the utmost beauty is sought for, to break the fall of the water however short its length—to compel it to make at least one leap, and to have the rockwork sides of its course well planted. I have seen one such, and although the entire fall was not more than 25 feet, yet the rockwork broke it into two falls, and the foamed water as seen through the bordering evergreens and trailing plants deserved and obtained the exclamation—“That is really beautiful!” An artificial waterfall can never merit the designation of “grand.”

I was disappointed in not finding rarer plants at the Devil's Bridge, and there were but few Ferns. Among these were *Cystopteris fragilis*, *Hymenophyllum Wilsoni*, and *Ceterach officinarum*.

The residence of Lieut.-Col. Powell is about four miles from Aberystwith, and has an additional temptation for visitors by being reached by the only road unfractured with a turnpike. The residence is handsome and well described by its name, Nant Eos, the Nightingale Dingle, for the whole park is

beautifully wooded on each side of a ravine, and is such a place as that queen of song birds delights in.

The approach from the entrance lodge to the house is about a quarter of a mile beneath noble specimens of Beech and other forest trees, and I should think that under them is the only quarter of a mile in all Great Britain that is entirely covered with the Aaron's Beard, *Hypericum calycinum*. The dressed grounds are small in extent, and the only specialities in them are two *Araucaria imbricata*; they are 25 feet high, most vigorous, and have not a brown leaf upon any branch, from the top to those which in a wide circle rest upon the ground. The approach from the house to the chief part of the dressed grounds is by a well-planted path by the wall side of the kitchen garden, which, it is to be regretted, intervenes. By this path is a mound surmounted by Mulberry trees, and that mound is the cemetery of dogs who have died in the service of the Powells. Small slate tablets are inscribed with their names, and one has an appropriate addition—

“TRAVELLER, a Retriever.

“That undiscovered country from whose bourne
No TRAVELLER returns.”

The kitchen garden is large and excellently cultivated, and the crops of Black Hamburg, Black Prince, and Muscat Grapes in its vineries were very fine in every respect.

The gardener, John Evans, is one of the sterling blue aprons of three generations ago. A Welshman, knowing little English, to whom Abercrombie, Miller, and London are unknown, and who never knew of any gardening periodical—not, O! Editors, even of THE JOURNAL OF HORTICULTURE!—yet he is a thoroughly successful gardener, has given entire satisfaction during the forty years he has rooted at Nant Eos, and, like others I have known, regular in his days for performing certain sowings and plantings every year, so as to need no “Gardener's Remembrancer” but an almanac. He was about planting-out his Leeks on Lammas Day, August 1st; and as he told me that they were sown in March, I will wager that the sowing was done on its first day, the anniversary of St. David. In talking with John Evans about the plants and crops, I found that he did not know some of them by the names we apply. He had only heard of the *Araucaria* as the “Monkey Tree,” and some others which I do not remember; but the divergence in names led to my thinking that the names by which plants are popularly known here afford evidence showing which are native and which exotic of Wales. For instance, Welshmen know Celery, Cauliflower, and Potatoes only by those names, showing that they are comparatively modern introductions; but Raspberries are *Mafons*, Strawberries are *Mefus*, and Leeks are *Cenin*. These last were evidently esteemed by Welshmen throughout known ages the bulb of all bulbs, the type of bulbs, for Garlic is *Cenin* ewineg, or Leek with Claws; the Chive is *Cenin* y gwinwydd, or Leek of the Vines—that is, clustered; and the Hyacinth, *Cenin* y brain, the Leek of Dignity, or King of Leeks! Since being here the derivation of many names have become to me explicable, which defied me before. Onion is evidently an abbreviation of its Welsh name, *Winwyn*, pronounced *ōnōn*. That apparently absurdly-named town in Devon, Penny-come-quick, is the corruption of the Welsh *Pen y cwm* (*cōm*) gwic—that is, the Head of the Valley Village. Apple is evidently derived from its Welsh name, *Apal*; and the Yew from *Yw*, pronounced *Yoo*.—G.

TURNIP CULTURE.

My crops of Turnips have been excellent for such a dry season. I have been drawing regularly from the 18th of June. I generally sow my first crop about the beginning of March, a small sowing at a time (every three weeks), so that they are always young. I have had throughout July as fine a lot of young Turnips as anyone could wish, sweet as sugar, as white as snow, and fleshy.

The variety I grow for my first crop is the Early American White Strap-leaf, a much quicker grower than either the Early White Dutch or Early Stone, as it comes in fully ten days earlier.

I find it is a good plan, previous to sowing, to give the ground a good dressing of soot and burnt ashes (equal quantities), as it prevents the ravages of the flea, and when the drills are drawn it mixes regularly with the soil.

The varieties I grow for winter and spring use are the Early White Green-top, Chirk Castle Black Stone, and Early Stone, with a few of the American Strap-leaf, which come in for the supply at the end of the autumn; this I sow at the end of

July and beginning of August. The borders where the early Kidney Potatoes were grown are useful for the late sowings.—W. McPHERSON, *Snelston Hall*.

ROSES AT CHESHUNT.

I WAS fortunate in fixing the date of my visit to these world-renowned nurseries of Messrs. Paul & Son, although in ordinary seasons I should have been too late; but the spring frosts had so effectually retarded the bloom by destroying the first buds, that, although eager enough for the fray, Mr. George Paul had been unable to put in an appearance at the earlier shows, but when he did enter the lists all other competitors went down before his determined onslaught, as the tilted fields of Exeter, Birmingham, and a host of other places bear witness to. It was a great treat, then, in the freshness of the early morning, to go under his experienced guidance through the serried ranks of those Roses from whence have come the marvellous blooms that have won for him such honours, but which are nothing to be compared in beauty to those which one sees in their freshness here; and I hope that the idea which was thrown out at Exeter may be carried out, and that we may next year have in the metropolis an exhibition of Roses which have been cut on the morning of the show instead of having been cut twenty-four hours or more, and when the lovely hues that distinguish so many, but which are so evanescent, may be seen. How Marie Baumann has been admired this year! yet I have not seen a bloom of it at a show with that beautiful glow which, like the blush on a fair maiden's cheek, adds so immensely to its real loveliness.

To say that Roses are grown at Cheshunt by the acre is what everyone knows. A quarter of a million or more of plants on the Briar and the Manetti would be, I suppose, about the ordinary stock of the firm, and that the plants are wonderful in their vigour is what one would expect from so experienced a grower and from such a soil. What a rich unctuous loam is that of these Hertfordshire fields! and how many a rosarian who has, perhaps, to combat with chalk, or sand, or gravel must sigh when he sees the depth of this soil, so suitable for the Rose! But my chief object in visiting the nurseries, independently of the pleasure of talking over our favourite flower with my friend Mr. George Paul, was to go with him through the new Roses and to see some of his own flowers in perfection, and I shall therefore give now my opinion on them, backed, as it is in most, if not all, instances, by that of one whom I regard as about the best judge of a Rose that I know.

Madame Lacharme.—I am utterly at a loss to understand my good friend Mr. Camm's determined attack on this Rose. I have never heard much doubt expressed as to its beauty; the only doubt that I in common with some have had is whether it was really a Perpetual, and so far from thinking that good old Lacharme has made a mistake in sending it out, I believe it will be associated for many a year with Charles Lefebvre as a testimony of his great success as a raiser. All doubts, too, as to its character of second blooming were set at rest by an inspection of a whole quarter of hundreds of plants, both on the Manetti and Briar, for every fresh shoot was full of bloom; and then its vigour and freedom will tend to make it a great addition to a class we are as yet sadly deficient in. I have since seen it on the seedling Briar at Mr. Prince's, and there it was equally good. Let Mr. Camm take heart of grace, and he will yet have to rejoice over a flower he now despises. *Madame Lacharme* is a Rose of 1872, and if the question is put, "Where are the other Roses of that year to be put?" Echo must answer, "Where?" Perhaps by-and-by the verdict will have to be reversed, but at present I must honestly say I do not believe a greater collection of rubbish was ever sent over than the Roses of that year, and I feel how grave is the injury done to our Rose-growers who bud and propagate hundreds of varieties which are afterwards found to be utterly worthless.

Claude Levet.—This was shown by Messrs. Paul & Son at South Kensington, and awarded a first-class certificate, a proof of the fallacy of judging of the merits of a Rose from plants grown in pots, for it will not do. There is not sufficient stuff in it, and we can tolerate now-a-days neither weak growth nor thin flowers, and so *Claude Levet* will be, I think, condemned.

Pierre Seletzky.—Quite a second-class Rose, but, like many, may occasionally be caught good, especially in the autumn, when Roses in good character are somewhat scarce.

Madame Marius Cote.—A pleasing but not first-rate Rose, in form exactly like *Madame Moreau*, but lighter in colour.

Those who like that style may grow this, but I do not think that it will be a general favourite.

Mrs. Veitch.—At one time this Rose promised well, but there is not enough stuff in it. As a rule, when French raisers give an English name to their flowers they are not worth a great deal; there may be exceptions, but "*exceptio probat regulam*."

Madame Emma Combey will not do, although a large Rose and at one time regarded as promising.

Mrs. Laing.—Miserable, reminding one of that long-discarded Rose *Reine des Violettes*.

Félicien David.—This is a pleasing but not first-class flower, and may, perhaps, improve on acquaintance.

Souvenir de J. G. Veitch.—I hope that this Rose may deserve the praises bestowed upon it by Mr. Camm. I cannot say that, although a pleasing shade of colour—a bright deep crimson—it strikes me as a first-class Rose, and its habit lacks vigour; in truth we have so many crimson Roses that a flower ought to be very good to take its place amongst them, and I do not think this is one of those that will do so.

Mlle. Fernande de la Forest.—What a name! and what will our gardeners make of it? Well, I do not think they will have much trouble about it, for I very much question if it will ever come to be much grown. It promised at one time well, but has lately belied its promises.

Marie Coulet.—This is certainly a very pretty Rose; whether it will ever make a show Rose is doubtful. The colour is a light rose, passing into blush; is small in size, and I fear not very vigorous in habit.

As to the other *souvenirs*, *madames*, *mademoiselles*, *docteurs*, &c., that made up the seventy or eighty Roses which our friends over the water so temptingly placed before us, I think they may all be dismissed with an admonition not to show themselves again. And I now come with real pleasure to speak of our home-raised varieties. One can look back to the time when *Devoniensis* was our only English Rose; and now, thanks to the energy and skill of some of our best growers, we are getting a race of flowers which will hold their own with any of the "furriners," and which in vigour of constitution will leave nothing to be desired.

Annie Laxton.—This flower will maintain its character, for it must not be forgotten that it was awarded at the Royal Horticultural Society's meeting at Bath the first prize for the best new Rose. It is now well known from its having been seen in so many winning stands, and is a flower deserving of being universally grown. The shape is good and the colour very pleasing, while the habit is very vigorous. Mr. Laxton is fortunate in having raised it.

Bessie Johnson.—This, too, is well known as a light blush sport from *Abel Grand*, and has been found a very useful Rose for exhibition.

Cheshunt Hybrid.—That this Rose has Tea blood in it cannot, I think, be questioned. I saw the plant from which the seed-pod had been obtained, and think Mr. Paul's idea that it is the product of a cross between *Camille de Rohan* and *Madame de Tantes* is correct. I saw very large quantities of it in growth here, and we had it blooming in my own houses and garden, and consider it a most beautiful and distinct flower, and must be universally grown.

S. Reynolds Holt.—It would be a pity if the name of this distinguished rosarian were connected with an inferior Rose; and when Mr. George Paul named his flower thus he doubtless intended it to be a real and not a fancied compliment. I am happy to say that, from what I saw of it here, it is likely to take a very high rank as a dark Rose. The colour approaches that of *Camille de Rohan*—a deep mauve flushed with scarlet, of fine form, and very large shelly petals. I saw it, of course in large quantities, and it was decidedly the best dark Rose in the grounds.

W. Wilson Saunders.—A fine well-shaped flower of medium size; the petals very large, and the shape of the flower similar to *Charles Lefebvre*, but without the deep blackish-crimson shading of that flower, being of a bright vivid crimson. This, too, will, I think, be a good addition to our lists.

The Shah.—As brilliant as anything *His Imperial Majesty* ever wore. The colour is a pure red without any shading, and shows its parentage—*Duke of Edinburgh*. It will probably take its place as a garden rather than as an exhibition Rose, and as such will for its vigour and colour be very effective. Besides these Mr. Paul has some other seedlings: one called *Dr. Hooker*, a seedling from *Duke of Edinburgh*, and another from *Maréchal Vaillant*, somewhat in the style of *Fisher*

Holmes, but larger. These may by-and-by come into commerce, for at present they promise well.

Of the new Roses of 1873 I saw but one in bloom—Captain Christy, of which much has been said, and which will be to all appearance a good addition. It is of a silvery peach colour, of the shape and character of Victor Verdier. Neither here nor elsewhere have I as yet seen any other of the new Roses, and so can say nothing of their qualities. Of older Roses Marie Van Houtte, Souvenir de Paul Neron, Comtesse de Naudillac, and Belle Lyonnaise, Teas, struck me as specially good, and Capitaine Lamure, Madame Hippolyte Jamain, Clovis, and Prince Stirby as Roses I should like to add to my lists.

There are a multitude of noteworthy things at Cheshunt, but I have confined myself simply to the Roses; but Strawberries, fruit trees, ornamental shrubs and trees are all well and carefully done, and all will well repay a visit.—D., *Deal*.

LATE STRAWBERRIES.

No fruit is more generally popular than the Strawberry: I do not therefore doubt but that very many of your readers will be glad to have light thrown upon various points about which I want information. I hope that some one qualified to speak on the subject will notice what I write. For one person who can afford to grow Grapes a hundred can grow Strawberries, and it must be a matter of interest to all such to hear how the Strawberry season may be prolonged. I should be very glad if some of your readers who grow many varieties would inform us when they had their first and their last dish this season, and the kinds which composed these dishes. I do not want this information so much from men like Mr. Luckhurst, who have all the resources of wealth at their disposal, who can gather their first crop from artificially heated borders and their last from plants that were forced in March, but from those who have no assistance save from the open air and natural soil. There must be some advance in the varieties. It would be a great boon if those who have tried them would tell us what kinds ripen well late in the season. I remember about ten years ago, when I lived not twenty miles from my present abode, I used to be pretty sure of a dish up to the 18th of August of a kind called Nimrod. I cannot now hear of its existence—it seems to have vanished.

My first ripe Strawberry this year was on the 29th May, which is unusually early for this part of the world, and I had a very large dish of Black Prince on June 10th. My last dish was of Oscar on August 1st. I shall have only a few poor berries of the same kind now. Next year I shall have Elton and Myatt's Eleanor, but I do not expect that they will be a bit later.

Cockcomb with me does not reach the great size described by Mr. Radclyffe and other correspondents. It does not grow even so large as British Queen, although the ground on which it is grown is made as rich as manure can make it. I should like to know what aspect suits this Strawberry best. Admiral Dundas I have of an enormous size—nearly three times as large as Cockcomb. Frogmore Late Pine is not a very late fruit with me, not later than Cockcomb.

Now if any of your correspondents will tell us of new Strawberries which beat Black Prince for earliness and Oscar and Elton for lateness, and give a more abundant crop than Oscar, they will deserve and shall obtain my gratitude.—D. F. J. K.

BEDDING GERANIUMS.

I wish to endorse what Mr. Pearson has said in your last number with respect to Geraniums, and quite agree with him that at all the principal horticultural shows, especially those of the Royal Horticultural, Botanic, &c., the name of the raiser ought to be appended; and I also strongly deprecate the custom of some nurserymen advertising new kinds of Geraniums without giving the raiser's name, often endeavouring to take credit to themselves.

I may also say of Mr. Pearson's Geraniums what perhaps he does not like to say himself—that having now carefully tried and tested different kinds of bedding Geraniums for many years, I have found more good ones amongst those of his raising and sending-out than from any other raiser. For instance, of eighteen kinds of pink Geraniums that I have bedded-out in distinct beds this year twelve are his raising, and of the twelve I shall only discard one. Nothing can surpass the beauty of Mrs. Lowe, Amaranth, Florence Durand, Mrs. Fyche, Contessa Quarto, and Mrs. Holden.

Moreover, in spite of the persistent attempt to cry down bedding-out gardens and to praise everything that is a perennial or an alpine, I shall be much surprised if after a short interval of untidy mixed borders and herbaceous quarters, &c., there is not a greater demand than ever for choice varieties of bedding Geraniums. Certainly I never yet experienced a season where quality is so entirely superior to quantity. However, I am anticipating somewhat some remarks I wish to make later on in your Journal. So long as the great majority of gardeners only propagate those sorts of strong-growing Geraniums that they think will stand hard usage in winter, keep them starved in cold pits without light or heat, and think that the value of a gardener depends on the quantity of plants grown instead of the quality, so long will bedding-out be open to much criticism; but if only a gardener will give as much pains to make his garden not merely gay but interesting and attractive as he does to get a succession of Grapes in his vineries, then persons of good taste and judgment will no longer have to complain of small and inferior plants, and endless repetition of the same plants over and over again.

I am called by some of my friends the champion of bedding-out. Certainly this year's experience of my own garden has more than ever confirmed my previous impressions, and has helped to convince me more and more that perennials and alpine, though good in their places, will not succeed in knocking the wind out of the sails of their half-hardy brethren. Take Geraniums, Lobelias, Ageratums, Verbenas out of our gardens, and what should we be reduced to? I have had my perennial borders very gay with Sweet Williams, Antirrhinums, Delphiniums, &c., but they are all things of the past now, and their places cannot be filled; and though Gladioli, Phloxes, &c., may help to make the borders passable, yet the gaps and barren places are legion.—C. P. P.

DESTROYING WASPS.

THINKING the plan of destroying wasps mentioned by Mr. C. Purrott to be simplicity itself, I went for the purpose of destroying a nest when dark, with a lantern, and lit a squib about 6 inches long. I then put a piece of clay in the hole, but on attempting to dig the nest out I found myself in "less than five minutes" about a mile away from the place, with a fearful buzzing of wasps round me. I found this would not do. Query: Are "C. P.'s" instructions sufficiently clear for ordinary brains?—DELTA.

LAST evening in walking past the vinery, I observed wasps issuing from a hole in the woodwork, and level with the garden walk. Having obtained a thin stick, about 18 inches long, I made a train of gunpowder and sulphur, which I wrapped round the stick, I then shoved the train into the hole, and stood ready with a turf, with which, as soon as I had fired the train, I blocked up the hole. On examining the nest this morning I found every wasp dead. A more easy, simple, safe, and effective way I do not know.—BETA.

THE GOLDEN PIPPIN APPLE.

WHEN and where the Golden Pippin was first discovered, are now matters of uncertainty; but all writers agree in ascribing to it an English origin, some supposing it to have originated at Parham Park, near Arundel in Sussex. Although it is not recorded at so early a period as some others, there is no doubt it is a very old variety. It is not, however, the "Golden Pippin" of Parkinson, for he says "it is the greatest and best of all sorts of Pippins." It was perhaps this circumstance that led Mr. Knight to remark, that from the description Parkinson has given of the Apples cultivated in his time, it is evident that those now known by the same names are different, and probably new varieties. But this is no evidence of such being the case, for I find there were two sorts of Golden Pippin, the "Great Golding" and the "Small Golding, or Bayford," both of which are mentioned by Leonard Meager, and there is no doubt the "Golden Pippin" of Parkinson was the "Great Golding." Whether it was because it was little known, or its qualities were unappreciated, that the writers of the seventeenth century were so restrictive in their praises of the Golden Pippin, it is difficult to say; but true it is whilst Pearmain, Red Streaks, Codlings, and Catsheads are so highly spoken of, the Golden Pippin is but rarely noticed. Ralph Austin calls it "a very special Apple and great bearer." Evelyn certainly states that Lord Clarendon cultivated it, but

it was only as a cider Apple: for he says, "At Lord Clarendon's seat at Swallowfield, Berks, there is an orchard of one thousand Golden and other cider Pippins." In his "Treatise on Cider," he frequently notices it as a cider Apple; but never in any place that I can recollect of as a dessert fruit. In the "Pemena" he says, "About London and the southern tracts, the Pippin, and especially the Golden, is esteemed for making the most delicious cider, most wholesome, and most restorative." Worlidge merely notices it as smaller than the Orange Apple, else much like it in colour, taste, and long keeping." Ray seems the first who fully appreciated it, for after minutely and correctly describing it, he says, "Ad omnes culinæ usna præstantissimum habetur, et Pomaceo conficiendo egregium." De Quintinye remarks it has altogether the character of the Paradise or some other wild Apple; it is extremely yellow and round, little juice, which is pretty rich, and without bad flavour. But the "Jardinier Solitaire," more impartial, or with better judgment, says, "Son eau est tres sucrée; elle a le goût plus relevé que la Requette; c'est ce que lui donne le mérite d'être reconnue pour une tres excellente pomme." The opinion of Angran de Rueneuve is also worth recording. "La Pomme d'Or est venue d'Angleterre; on l'y appelle Goule-Pepin. J'estime qu'elle doit être la Requette des Pommes, et que la Requette ne doit marche qu'après elle; car elle est d'un plus fin relief que toutes les autres Pommes." Switzer calls it "the most antient, as well as the most excellent Apple that is." But it is not my intention to record all that has been written in praise of the Golden Pippin, for that of itself would occupy too much space, my object in making these extracts being simply to show the gradual progress of its popularity.

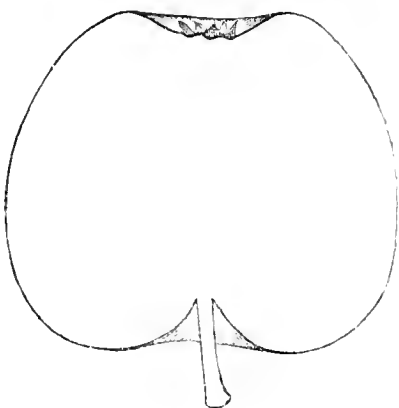


Fig. 43.—The Golden Pippin Apple.

The late President of the London Horticultural Society, T. A. Knight, Esq., considered that the Golden Pippin, and all the old varieties of English Apples, were in the last stage of decay, and that a few years would witness their total extinction. This belief he founded upon the degenerate state of these varieties in the Herefordshire orchards, and also upon his theory that no variety of Apple will continue to exist more than two hundred years. It would be needless to enter into any discussion upon a subject concerning which so much has already been said and written, as there is sufficient evidence to confute that theory. The Pearmain, which is the oldest English Apple on record, shows no symptoms of decay, neither does the Catshead, London Pippin, Winter Quoining, or any other variety; those only having been allowed to disappear from our orchards which were not worth perpetuating, and their places supplied by others infinitely superior.

It is now considerably upwards of half a century since this doctrine was first promulgated, and though the old, exhausted, and diseased trees of the Herefordshire orchards, of which Mr. Knight spoke, together with their diseased progeny, may ere this have passed away, we have the Golden Pippin still, in all the luxuriance of early youth, where it is found in a soil congenial to its growth; and exhibiting as little symptom of decay as any of the varieties which Mr. Knight raised to supply the vacancy he expected it to create.

In old nurseries like those at Sawbridgeworth, where the same Golden Pippin has been cultivated for centuries, and continued from year to year by grafts taken from young trees in the nursery quarters, I never saw the least disposition to

disease, canker, or decay of any kind; but, on the contrary, a free, vigorous, and healthy growth.

But this alarm of Mr. Knight for the safety of the Golden Pippin, and his fear of its extinction, were based upon no new doctrine, for we find Mortimer a hundred years before, equally lamenting the Kentish Pippin. After speaking of manures, &c., for the regeneration of fruit trees, he says, "I shall be glad if this account may put any upon the trial of raising that excellent fruit the Kentish Pippin, which else, I fear, will be lost. For I find in several orchards, both in Kent, Essex, and Hertfordshire, old trees of that sort, but I can find no young ones to prosper. A friend of mine tried a great many experiments in Hertfordshire about raising them and could never get them to thrive, though he had old trees in the same orchard that grew and bore very well. I likewise tried several experiments myself, and have had young trees thrive so well as to make many shoots of a yard long in a year, but these young shoots were always blasted the next year, or cankered; which makes me think that the ancients had some particular way of raising them, that we have lost the knowledge of." Although this was written 150 years ago, we have the Kentish Pippin still, which though not so much cultivated, or so well known now as then, is, nevertheless, where it does exist, as vigorous and healthy as ever it was.

The fruit (fig. 43) is small; roundish, inclining to oblong, regularly and handsomely shaped, without inequalities or angles on the sides. Skin rich yellow, assuming a deep golden tinge when perfectly ripe, with a deeper tinge where it has been exposed to the sun; the whole surface is strewn with russet dots, which are largest on the sunny side, and intermixed with these are numerous embedded pearly specks. Eye small and open, with long segments, placed in a shallow, smooth, and even basin. Stalk from half an inch to an inch in length, inserted in a pretty deep cavity. Flesh yellow, firm, crisp, very juicy and sugary, with a brisk, vinous, and particularly fine flavour.

One of the oldest and by far the most highly esteemed of our dessert Apples. It is also an excellent cider Apple. The specific gravity of its juice is 1078.

It is in season from November to April. The tree is a free and vigorous grower, but does not attain a great size. It is also an excellent bearer.—H.

FERNS AS WINDOW PLANTS.

THERE are few plants which require less attention and yet give more satisfaction to dwellers in towns than do the hardier description of Ferns. From the fact that many of them are greenest and best in winter when other plants are out of bloom, their culture ought to be patronised by the poorer classes who cannot afford more expensive plants. Amongst the limestone formations of North Lancashire the Fern commonly known as Stag's-head is very numerous and luxuriant. The beautiful green fronds grow to a length of 12 inches to 18 inches, and many of them, when cultivated in pots, fork so as to be rare and beautiful Ferns, the tips of the fronds forming into a bunch. I should like to call the attention of city horticulturists to the fact that these Ferns might be gathered at a very trifling expense and sent to town by wagonloads, seeing that the hedges are full of them in the district named. Arrived in cities they might be potted, and a good profit realised from the sale at from 9d. to 1s. per pot. They will live for many years, and would form "a thing of joy" in many humble homes, to the dwellers in which the sight of a green leaf is a pleasure. The beautiful little Maiden-hair, Royal, Parsley, and other Ferns, are equally common in the district.—BETA.

PLEASLEY VALE.

THE RESIDENCE OF W. HOLLINS, Esq.

DERBYSHIRE is noted for its romantic dales, but though many of these are far more renowned, yet few will better repay a visit on a quiet summer's day than Pleasley Vale. An hour's ride by rail from Nottingham brings us to Mansfield, a moderate-sized and pleasantly-situated market and manufacturing town, a place of great antiquity, and well known by name to the admirers of Robin Hood and his exploits. Leaving Mansfield by the road, we thread the village of Mansfield Woodhouse, where there is a picturesque church, and passing quarries, corn fields, and meadows, after a mile and a half we reach the scene of the present paper. Descending by a steep path which winds between crags that in places tower high overhead, and from whose summits hang as it were

trees nodding to their fall, we reach the vale, then crossing the little bridge which spans the stream, we are in Derbyshire, and pause to admire the scene around us. Here nature and art seem to vie with each other to render the place attractive. On the side along which the road winds the rocks tower up terrace above terrace, their sides covered with shrubs of all kinds; here and there a break occurs, and the natural slope of the wall side is preserved, and with a steep, though gradual, incline it rises till the sky peeps through the trees high overhead. On the other side, close under which the stream, here widened into a broad river, glides along, the banks clothed in all the richness of forest verdure, interspersed with flowering bushes, as Roses, Mountain Ash, &c., rises one mass of foliage, which, reflected in the calm stream beneath, forms a picture of surpassing beauty. This water has been utilised for manufacturing purposes, and two spinning mills have been erected, one at the centre, the other at the farther end. Far from destroying the natural beauty of the vale, these erections and their surroundings have virtually increased it. Tastefully designed, massive in structure, and as far as possible in keeping with the surrounding scenery, they break the continuity of foliage, and give a charm to the natural features of the landscape. The stream, once a little rivulet meandering, hidden between deep banks, forms first a lake-like reservoir with its banks fringed with shrubs, then, as it glides along, a calm broad stream.

Pursuing our journey we enter the gardens near the gardener's cottage and flower garden, which is a picture of beauty and an index to what we may expect within. From the picture that is here presented we are at once convinced that Mr. Quintin Read, the superintendent, is a master of his profession. Leaving this fairy spot, we pass by a small shrubbery, and a nice rockery clothed with alpine plants, into what is called the old kitchen garden; for as the owner's family has increased the kitchen garden has been extended to meet the demand. Along the centre of this garden is a ribbon border on the right, and on the left as far as a cross walk; and the remaining length is a mixed border, containing choice Phloxes, Pentstemons, Delphiniums, Gladioluses, and a batch of Geraniums put out for trial. The ribbon border on the right was planted first with a row of *Sempervivum californicum*; second, *Mesembryanthemum cordifolium variegatum*; third, *Viola Perfection*; fourth, yellow Pansies; fifth, *Verbena Purple King*; sixth, *Geranium Miss Kingsbury*; seventh, *Geranium Bayard*. The ribbon border on the opposite side of the walk was the same, except the first and second row, which were *Echeveria secunda* and *Antennaria tomentosa*, all very simple and very effective.

Turning into the early viney we found there an excellent crop of Grapes; we counted on one Black Hamburgh Vine forty-six bunches. All the Vines bore a heavy crop; none of the bunches would weigh less than 1 lb., and many of them from 2 to 4 lbs.; the berries fine, and the colour good. Beneath this heavy crop of Grapes there was a large collection of Begonias, Ferns, and other plants. Among the latter we noticed a large specimen of *Adiantum farleyense*, also *Dicksonia antarctica*, *Adiantum concinnum latum*, and many of the commoner sorts, all in a healthy condition. The Grapes in the next house had not begun to colour, and here every available spot was taken-up by plants and made the most of. Azaleas that had bloomed in the conservatory had been brought here to make their growth, and many that had been forced early and had completed their growth were either turned out of doors or put in safe quarters in cold pits.

From the viney we passed into a Peach house with one set of trees trained on the back wall, and another set on an iron trellis in front. The trees were in very good health and carrying a heavy crop of fruit. In a little adjacent span-roofed house one side was devoted to Cucumbers, and the other to a large *Allamanda Schottii*. In this house for several years Rollisson's Telegraph Cucumber and Pearson's Long Gun have been planted side by side, and both are so good that it is difficult to tell which is the better. Cut flowers are in great demand, and the *Allamanda* is one of the most useful plants for the purpose. In adjoining pits and frames were large quantities of Epacris, Heaths, Zonal Geraniums, Balsams, and other useful greenhouse plants, and in shady situations frames were filled with Primulas, Cinerarias, &c.

Passing-out of this garden we enter the kitchen garden proper, and here neatness and good order prevailed on every hand. Peas, Potatoes, Celery, Lettuces, and other vegetables were in luxuriant health, and scarcely bore any traces of the long-continued drought. This is to be traced in a great mea-

sure to the practice of deep digging and subsequent surface-stirring. We observed that there was not an inch of ground unoccupied, and in odd corners there were hundreds of hardy spring flowers to be brought to the beds in the flower garden when the glory of the present plants shall have passed away.

Retracing our steps we again reach the carriage drive, and passing through a small gate we find ourselves on a broad terrace walk in front of the mansion (see fig. 41). It is built in the Italian style of architecture, and commands most pleasant views. The internal arrangements are superb, and the adornments exquisite. Turning round to the right there is a small but neat flower garden, surrounded by an ornamental balustrading. Beyond is the extensive lake. The lake is fringed with trees and shrubs, and has an irregular outline, so essential in water scenery. Immediately in front of us is the geometric flower garden. There is a circle in the centre about 7 feet in diameter, surrounded by another circle of the same width divided into four beds. At four angles are four other circles of the same size as that in the centre, and between these are other beds with their ends concave, to suit the circles on each side. At each end are long narrow beds, which seem to enclose the whole; these are about 5 feet wide bounded by curved lines to match the outlines of the adjacent beds. All the beds have raised edgings either margined with *Echeveria* or *Sempervivum*. The centre bed was margined with *Echeveria secunda*, and edged with *Dactylis glomerata variegata*, and *Lobelia Crystal Palace compacta*, within which is a band of *Gnaphalium lanatum*, and the centre is filled with *Geranium Amaranth*. Then two of the four beds surrounding the centre are margined with *Echeveria secunda*, and edged with *Golden Feather Pyrethrum*; two diamonds are formed in the centre of each bed with *Golden Feather Pyrethrum*, and filled with *Colerus Verschaffelti*, and the groundwork between the diamond-shaped beds and the *Golden Feather* edging, was *Alternanthera amabilis*. The other match beds were margined with *Echeveria secunda*, and had a broad edging of *Alternanthera magnifica*. Two diamonds formed in the centre of each bed were of *Colerus Verschaffelti*, and filled in with *Gnaphalium lanatum*, and the groundwork of the bed *Mesembryanthemum cordifolium variegatum*. The four circular beds at the four angles were all margined with *Echeveria secunda*, and edged with *Mesembryanthemum cordifolium variegatum*, within which was a band of *Iresine Lindeni*; and the centre of two of them was filled with *Geranium Miss Kingsbury*, mixed with *Lobelia speciosa*, and the other two were *Geranium Mrs. Pollock*, and *Viola Perfection*, plant for plant. The two beds between the four circles were margined with *Sempervivum californicum*, and edged with blue *Lobelia*, then a band of *Creed's Seedling Geranium*, and the centre of one filled with *Geranium Douglas Pearson*, and that of the other with the *Rev. T. F. Fenn*. The long narrow beds at each end were margined with *Sempervivum californicum*, and edged with *Cerastium tomentosum* and blue *Lobelia*, plant for plant, within which was a band of *Golden Feather Pyrethrum*, and then another inner circle of *Iresine Lindeni*, and the centre of one was filled with *Geranium Amy Hogg*, and the other *Geranium Arthur Pearson*. Every plant in this arrangement was in perfect health, and notwithstanding the adverse season, each had filled up its allotted space.

Although this flower garden is not on a large scale, yet many thousands of plants had been used in its embellishment, and its beauties must be seen to be appreciated. By the side of the terrace walk leading to the conservatory, and parallel with the flower garden, was a row of vases, or instead of vases there were short lengths of trees with the middle scooped out, and placed on end to give the appearance of rustic vases, and these were planted round with dwarf Yews kept closely cut; the dark green foliage of the Yews, and the bright magenta, pink, and crimson of the Geraniums with which they were filled, afforded a pleasing contrast.

We now pass on to the conservatory, and here a dazzling blaze of floral beauty presented itself to the eye. The stage and every available place were filled with such flourishing plants as are found in the best-regulated places at this season of the year. Conspicuous were *Pelargoniums*, both of the Zonal and Greenhouse section, and in the former we observed some splendid varieties raised and sent out by Mr. Pearson, of Chilwell. We may mention as being really first-class *F. Durand*, *Mrs. F. Burnaby*, *Amy Robart*, *Col. Holden*, *Rev. C. P. Peach*, *Mrs. Masters*, *Lady L. Egerton*, *Mrs. Fyitch*, and many others too numerous to mention. Up the pillars were trained *Plumbagos*; and from the roof, all in luxuriant health and

beauty, gracefully dangled Fuchsias, Tropæolums, and Passifloras.

Passing-on to the conservatory we wandered through the croquet-ground amidst foliage of diversified hues, and charming beds of flowers. The rocks on the left tower upwards perpendicularly many yards high. The scenery in this charming spot is of the true Derbyshire character. Here large masses of rock had been removed to obtain space for the main walk which leads to the zigzag walks through the wilderness. A large piece of rock standing on the croquet-ground clothed with Ivy, Cotoneasters, and other evergreens formed quite a novel feature in this part of the grounds. In the "wilderness," which is situated on a high eminence behind the mansion, a lover of the beautiful would fain linger. On the summit of the hill the flower gardens for the children are situated, as well as a cosy, well-arranged summer-house for chil-

dren's tea and picnic parties. Ascending a very high rock a splendid view presents itself. On these hills, high rocks projecting here and there, the visitor might easily fancy himself rambling amidst the romantic scenes of Matlock, instead of the luxuriance of Pleasley Vale. We are now obliged to leave this rural retreat, and pursuing our journey onwards we at last emerge from the woodland scenes, and here a glorious landscape bursts upon the gaze. Down in the hollow, and apparently under our very feet, stand two handsome cottages, one for the use of the head-gardener, and the other for the head-coachman, and further on to the right are the kitchen gardens, hothouses, &c., already noticed. In the front of us are the shrubberies, the lake with its pleasure boats, swans, and water fowl. Beyond the lake is the undulating landscape, which stretches before the eye like a charming panorama.

Leaving this high acclivity we pass down a large number of

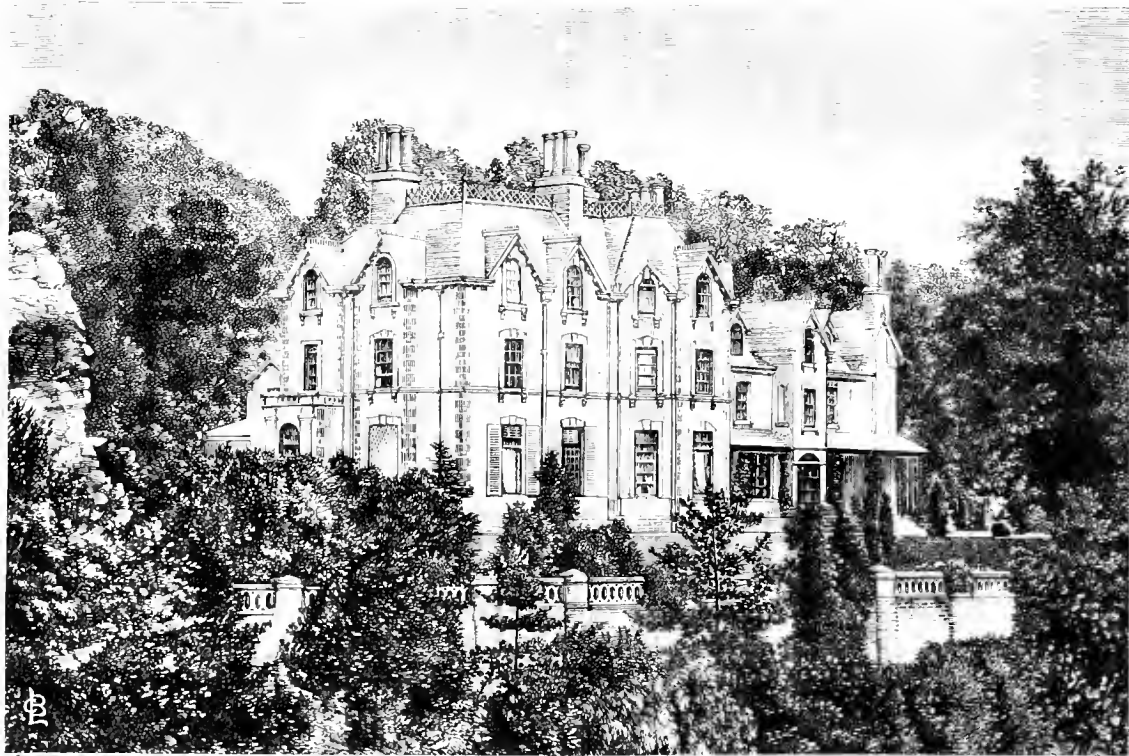


Fig. 44.—PLEASLEY VALE.

rustic steps, and find ourselves on the carriage-drive near the gardener's cottage at the point we entered the grounds. The cottage was a pattern of perfect beauty; the walls were mantled with Roses, Cotoneaster, Pyracantha, and Clematis Jackmanni was decked-out in all its purple glory. In front of the cottage was a neat flower garden chiefly planted with choice Geraniums. The centre bed was Violet Hill Nosegay edged with a Bronze Geranium, and an outer band of Viola Perfection. Another bed of Geranium Corsair was equal to anything we have seen this season, and two beds of Geranium Miss Kingsbury mixed with blue Lobelia were worthy of imitation. William Sanday, Amaranth, and Mrs. Holden were hardly coming-up to Mr. Read's expectations, but no doubt he will report on these and many others under his charge before the close of the season. The coachman's flower garden was also beautiful. One pretty mixture we noticed was a bed of Geranium W. Underwood, Geranium Mrs. Pollock, blue Lobelia, and variegated Thyme.

The last bit of flower gardening we shall notice, but not the least, was by the roadside leading to the village of Pleasley. It was at the end of a shrubbery, in a curve in the road, was about 60 feet long and 9 feet wide, and separated from the road by a light wire fencing. The first 9 feet was separated from the rest of the bed, and formed a little design to itself. There is a circle cut into eight parts by lines radiating from

the centre to the outside, and these parts were planted with *Antennaria tomentosa* and *Alternanthera magnifica* alternately, with a large *Echeveria metallica glauca* in the centre; and the other space which formed a square was filled-in with variegated Thyme. The other part of the bed was planted as follows: There was a double row of *Sempervivum californicum* along the front and each end of the bed; next a row of *Mesembryanthemum cordifolium variegatum*; then half-circles were formed of Golden Feather *Pyrethrum* in double file, with the ends abutting against the *Mesembryanthemum*, and filled-in with *Alternanthera amabilis*; behind the Golden Feather was a broad band of *Iresine Lindenii*, with another course running behind that of *Stachys latata*, and the back row was *Geranium William Thomson*. What is praiseworthy is that such a magnificent arrangement should be seen by everyone travelling on the road, yet never a leaf has been touched, though people of all grades daily pass by.—P.

A RUSTIC SUMMER HOUSE.

We borrow from Mr. J. Caven Fox's "Illustrated Catalogue of Rustic Summer Houses, &c.," the accompanying illustration (fig. 45), of an extremely neat little structure. It is no mere fauzy design, but, like the large one which we gave at page 79, is in actual existence in the gardens of the Royal Horticultural

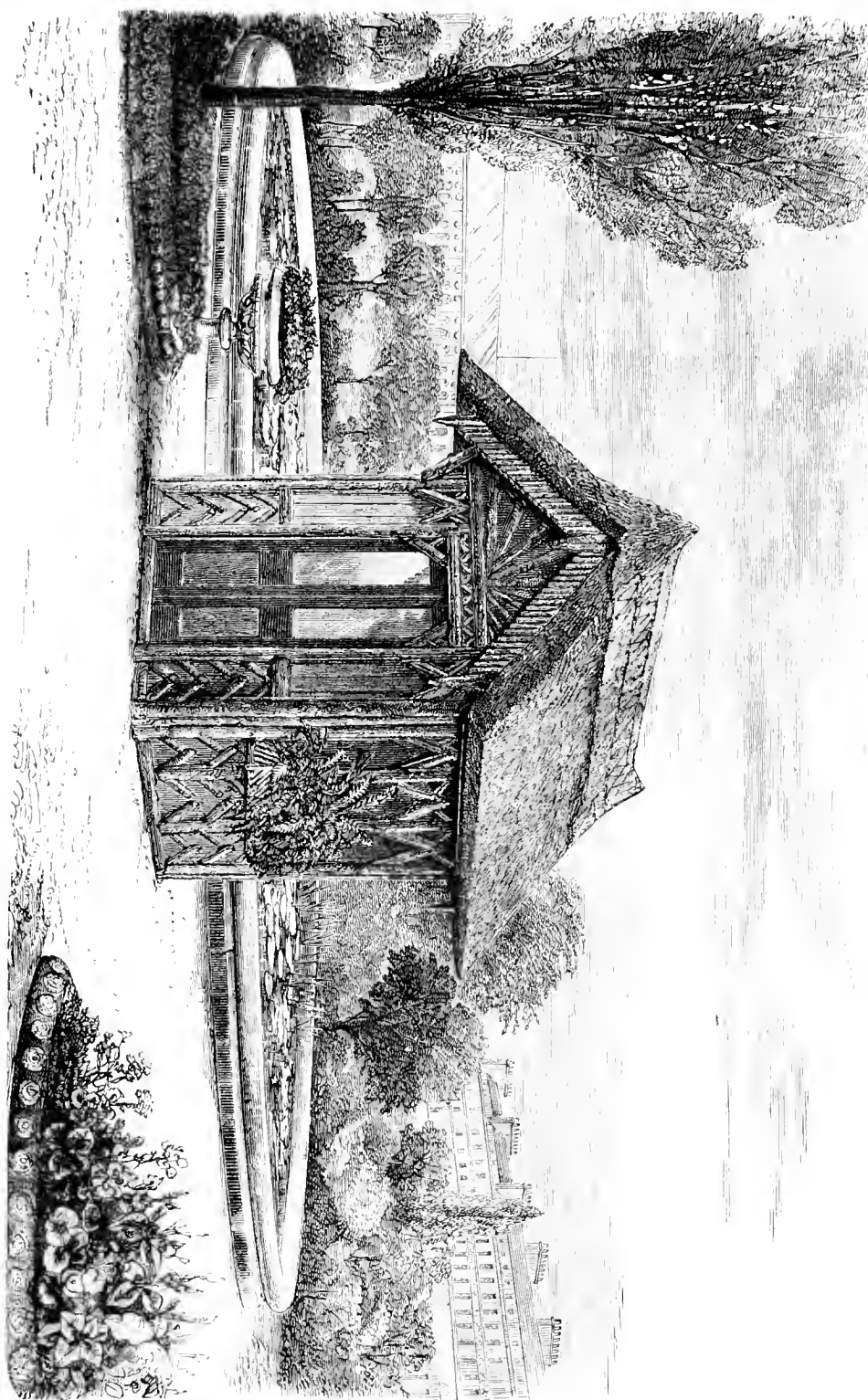


FIG. 43.—RUSTIC SUMMER HOUSE AT SOUTH KENSINGTON.

Society at South Kensington, where it has attracted the attention of many visitors. There are many situations in a garden in which a summer house of this description would be an ornament, and prove useful as well, while a covering of heath or reeds would ensure greater coolness in summer than a wooden or tiled roof would do.

ROSE SHOWS.

THE paragraph in last week's Journal with the familiar signature of "D. Deal," appended to it, concerning a new mode of exhibiting, has struck me with amazement, and almost consternation. I only see your excellent paper, as I find this supplies all my wants, and contains more information about Roses than all the others combined; and it does not do to discuss a proposition without knowing its exact nature, but yet, as "D. Deal," has opened the question, there can be no harm in my saying what I for one think of it. "To show Roses grouped in beds like they do at the great exhibitions in France." Such, I believe, is the proposition, and a more revolutionary and preposterous one I have never seen. Why, the merits of the individual bloom must be entirely out of the question if grouping or massing is to be the test. What, Messrs. Editors, is to become of all our boxes and tubes which we have got together at so much expense? What is to become of the small growers? Are they to be left out in the cold, or their small offerings to Flora's court to be swamped by the hecatombs of the champion growers?

Then, as to space: How can the managers allot the proper space without having awkward gaps? for we know, even with our present system, how many persons enter and do not stage, so that it often happens that all the arrangements made previously by the manager have to be altered on the morning of the show. The boxes have to be moved and made to cover more space, or *vice versa*. But how could this be done where beds were allotted to each entry? The secretaries would be compelled to impose a fine, or take some other disagreeable course, to insure the attendance of those who enter (like, I regret to say, Mr. Quilter did at Birmingham, in imposing what really amounted to a fine of £2 on all who entered and did not compete for his champion cups). In fact, the proposition if carried out would be replete with difficulties, and would in my opinion ruin, or at all events greatly decrease, the welfare of every Rose show in England. Such, gentlemen, are my sentiments.—JOHN B. M. CAMM, *Monkton Wyld*.

QUISQUALIS PUBESCENS.

M. HOUËLLET directs attention to this as an ornamental plant of the highest merit, but not sufficiently known. He says: I had long cultivated in pots some plants of it, but they never gave the slightest sign of flowering. Two years ago, however, it struck me to turn a plant out in the bed of a stove, and in a short while its branches extended to a length of upwards of 80 feet, and this year formed garlands of flame-coloured flowers. These continue more than two months, and I can affirm that no climber is better suited for covering the pillars and walls of plant stoves. It has, besides, another good quality—that of never being attacked by insects, to which other stove climbers are so subject. It is probable that in the south-east of France—at Nice, for instance—it would, like the Bougainvillea, flower well out of doors. It should be planted out in the house in a mixture of leaf mould and loam, to which a little peat may be added for young plants. It is easily propagated by cuttings of the half-ripened shoots put in in peat soil under a bell-glass in the propagating house.

The plant belongs to the order Combretaceæ, and being a native of the warm parts of India, it thrives in the stove, and possibly it could even be grown in an intermediate house.—(Abridged from *Revue Horticole*.)

THE PLAGUE OF GNATS AND FLIES.

SOME of my family have left London to enjoy for a time life in the country. The change is very enjoyable and pleasant to them, but there is a drawback to their comfort in the plague of gnats and flies. They have written to me for a remedy, and I shall be glad to tell them the best, and one that will be effectual. I hope this will excuse my troubling you.—E. M. M.

[Will some of our readers come to the relief of our correspondent, and suggest a remedy? Gnats and flies are difficult

game to bring down in sufficient quantity to make the sport productive of any beneficial result. They are difficult to catch, except by the "catch-em-alive." You cannot fumigate them without first catching or surrounding them; to poison them seems the only remedy, and for this purpose we use in dwellings "Papier moure," to be had of all grocers and oilmen.—EDS. J. OF H.]

THE POTATO CROP.

I SEND you the result of my Potato crop, the whole of which, I am thankful to say, is now safely housed.

Early Rose, a magnificent crop; Hayes' Kidney, poor; Patterson's Victoria, good; Jersey Blues, very good; Dalmahoy, very good; Bresee's King of the Earlies, fair; Bresee's Peerless, a splendid crop; Red-skinned Flourball, poor; Sutton's New Hundredfold Flake, excellent. New Extra Early Vermont—of this I planted 1 lb., and have 17½ lbs. of Potatoes, some small, but for the most part a fine sample.

Among all these Potatoes there is not a speck of disease, except among the Bresee's Peerless. Why the disease should have attacked these I cannot conceive; it is, however, far too valuable a Potato to give up.

Amongst my Potatoes of every sort are many very small ones. This I attribute to the fact of their having been cut down so often by the spring frosts. Still I hold this to be no argument against early planting, for

First, the succession of Potato-cutting frosts this spring was quite exceptional.

Second, it is better to have some small Potatoes amongst the sound ones than to have the whole crop rotten.

If all the Potatoes had been of good size the ground could not have held them, and then we should have complained of so many green ones. As it is, I have a capital crop on the whole.—H. G. M., *Guildford*.

PRINCESS ALICE CUCUMBER.

In the last number of "our Journal," page 119, in your report of the meeting of the Royal Horticultural Society at South Kensington on the 5th inst., you say that "Messrs. Cuthbush & Son, of Highgate, sent specimens of Princess Alice Cucumber, a good, prolific, hardy variety of good deep colour, but it was not thought better than other varieties in cultivation," which calls forth our opinion based on three years' trial, and supported by dozens of gardeners who grew it in the last and present season, that it is the best variety for general purposes we have yet met with. It is first-class for winter work, ordinary house work, and frames; hardy in constitution, most prolific bearing, and having firm heavy fruit of a peculiarly nutty flavour.

We have been for many years, like most seedsmen, asked for "a good Cucumber that will do for any purpose;" and until three or four years ago, when we met with Princess Alice in Bedfordshire, we have never been able to procure such a one as would give general satisfaction to our customers; and if anyone who is at all interested in such a subject would give us a call here within the next three or four weeks, he can be shown it growing in a cool house and in an ordinary pit. Nevertheless, if it is like any other sort we shall be only too pleased to know what the sort is, that we may procure it, and test next year; but in the meantime we shall maintain our own opinion as to its superiority until proof, direct proof, of our error.—WM. CUTHBUSH & SON, *Highgate, N.*

NOTES AND GLEANINGS.

WE learn that a POMOLOGICAL CONGRESS is to be held at ANGERS, commencing on the 28th of September. The Angers Horticultural Society will have an exhibition of fruit, and all horticultural societies and amateurs both in this and other countries are invited to contribute to the show. The jury is to be chosen from members of the Pomological Congress of France.

—In the last number of the "Revue Horticole," M. Carrière directs attention to the value of CLEMATIS BALEARICA as an evergreen climber for the conservatory or greenhouse. The plant is a native of the Balearic Isles, and at Paris stands the winter against a wall with a good aspect; but in this case its flowers are liable to be nipped by frost owing to the early period (February and March) at which they appear. But for conservatory decoration at that time, when flowers are gene-

rally scarce, it is admirably adapted, whether planted-out and trained up the pillars or against the walls, or grown in pots, producing multitudes of large yellowish-white bell-shaped flowers, streaked and spotted on the inside with rosy purple.

— The handsome RHODODENDRON CAMPTYLOCARPUM flowered in the greenhouse at Dysart House, Fife, N.B., for the first time in the month of March.

— At a recent meeting of the Berlin Academy, a paper was read by Professor Dove on THE GENERAL CHARACTER OF MILD WINTERS. One fact which appears from his figures is that several such winters often follow one another in close succession, or with little interruption. It also appears (1) that sudden exceptional moderating of the temperature in the last third of December is very frequent; but does not always betoken a continued mild January of the following year; (2) that a cool November and cold first half of December generally point to a mild January following; and conversely, a mildness in the former period points to a severe midwinter. The phenomena, lastly, show that the earth's surface at a determinate time falls into determinate weather systems; and the rules found for one of these are without significance for another. As these systems depend on air currents, they can have no universal application.—(*English Mechanic*.)

— THE INFLUENCE OF FORESTS in drawing moisture from the heavens, says the "Californian Horticulturist," may be seen from the experience of San Diego, California. Previous to 1863 there was yearly a rainy season, which made the soil nourishing and productive. In 1863 a destructive fire swept over the greater part of the country, destroying the forest, and blackening the hills. Since then there has been no rainy season at San Diego.

— THE EMPLOYEES of MESSRS. SUTTON, of READING, accompanied by their wives and relations, went on the 5th inst. for their annual excursion—the cost of the journey being defrayed by Messrs. Sutton, who also presented each with a good round sum for recreation and refreshment. At 7 A.M. more than two hundred of the employes and their friends, accompanied by some of the members of the firm, took their departure by special train for Hastings, where they enjoyed for several hours the attractions of that beautiful watering place. This is another instance of that kind and considerate feeling which exists between the employers and the employed of the great Reading seed firm.

DOINGS OF THE LAST AND PRESENT WEEKS.

KITCHEN GARDEN.

EXCEPT clearing off sticks and Pea haulm from which the crop has been gathered, also the last of the spring-sown Cauliflower, hoeing-up and gathering-off the weeds everywhere, little else has been done. Just a word in reference to the spring-sown Cauliflowers. For the last ten years we have sown seeds in the autumn, and also early in the spring, the latter sowing being made under glass lights. The autumn-sown plants have furnished us with good heads, white and firm, from the middle of May onwards. The spring-sown plants are intended to succeed them, and this they do in a way; but although the seeds are in most cases taken out of the same packets, the produce is as different as light is from darkness. The produce of the latest-sown is such that we are ashamed to send it to table; and in whatever part of the garden the plants are grown the result is the same—the heads are green and loose. This year the plants were put out on the Gladiolus ground, and that is very rich: in fact, the same ground is selected for both sowings. We have now come to the conclusion that the fault lies in our light gravelly soil, which does not seem to have sufficient holding power for this class of vegetables to succeed in the summer months. But do we not learn a useful lesson from this in the way of charity to the gentlemen who supply the seeds? It would be very easy to point to the quarter of bastard-looking plants, and so lay the blame on the seeds, if the fine crop that had been previously cut did not give the lie to the assertion.

Then about the weeds. These should never be allowed to become so large that it is necessary either to rake or gather them off. We very seldom use a rake during the summer months. The hoe is kept at work whether weeds are to be seen or not, and the surface remains as it is left by the hoe.

Sowed early Cabbages for use in April, May, and June. It is always best to sow on hard poor soil, and thinly, so that stocky plants may be produced. Some persons, as soon as the young plants have formed the rough leaf, prick them out, say 3 inches apart: this certainly produces better plants, but we have no time for it. Peas generally fail with us at this time, but to make up for it Dwarf Kidney Beans and Scarlet Runners do famously. Any quantity of fine succulent pods can be

gathered from a row or two of the latter. If it is necessary to sow two or more rows together, a distance of 6 feet should be allowed between them. There is not a more profitable vegetable for cottagers' gardens than Runners, and when well cooked few are more wholesome. When the plants show the least signs of distress from excessive drought, a drill should be drawn about 3 inches deep, at a distance of 6 inches from the roots, to be filled up three or four times with water. It is not desirable to pour the water against the stems of the plants.

Potatoes are turning-out well in the fields. Dalmahoy and White Dons are extra good, but a few diseased tubers have been found, and one badly affected was found in a basket of Extra Early Vermont. By-the-way, this last is a Potato that can be recommended for small gardens; it is very early, the tubers are large (four fine-shaped specimens just weighed are only half an ounce short of 3 lbs.). The haulm is very short, more so than that of the Ash-leaved Kidney.

FRUIT AND FORCING HOUSES.

Pinerias.—Suckers that were put into pots about the end of July or earlier should now be treated to a warm moist atmosphere of from 70° to 75° at night if the weather is mild; indeed, the best instructions would be to say, Keep up a good heat in the hot-water pipes, and shut-up early. With a bottom heat of 90° or 95° the plants will grow rapidly, and when their roots strike through the bottom shift them into their fruiting-pots at once; in fact, they ought to be in them now if they are to be started to fruit in January next. Our own Queens and some Smooth-leaved Cayennes put in about this time last year are now coming-in. Before potting the suckers it is well to examine them carefully, and to pick and wash-off any insects or scale that may be hidden in the axils of the leaves. It used to be a common practice to lay the suckers out to dry for a few days before potting them, but that was in the days of old, when Pines were grown in pots that required two men to move them, and from two to four years was the time required to produce the fruit. The only motive for drying the suckers would be to prevent them from rotting at the base, but this never happens if the pots are not watered for a week after the suckers are potted. In the house where fruit are ripening and swelling-off admit air freely, and unless it is necessary to hasten the maturation of the fruit very little artificial heat is necessary. If the plants are in good health it will not be necessary to shade after this time.

Orchard House.—The trees still require abundant supplies of water at the roots, and such late sorts as Lord and Lady Palmerston, Salway, &c., are syringed in the morning. A larger proportion of the Peaches than usual have split stones, nor is the fruit large. The Nectarines are good, but this is not the only season in which, though the Peaches have only been of average quality, the Nectarines have been first-rate. An extensive experience leads us to the conclusion that the Nectarine is more amenable to pot culture than the Peach. One thing particularly noticeable is, that should the trees have suffered from a deficiency of water at the roots, Peaches would be "woolly," or what a Scotchman would call "duffy," and it would not be so with Nectarines. Except looking over the trees daily and gathering the fruit as it ripens, the trees have not required any other attention. We used to place bags made of gauze under the fruit, into which it dropped when quite ripe; this is not such a good way as gathering the fruit daily when it parts readily from the stalks.

GREENHOUSE AND CONSERVATORY.

Many of the usual occupants of these structures have been shifted out to other quarters; for the present, however, it is an easy matter to keep these houses gay with Zonal Pelargoniums and other hardy subjects, not to mention such fine and distinct flowers as Phloxes and Gladiolus. The latter need not be grown in pots; all that is necessary is to cut the spikes, and insert them in bottles of water. The bottles should be quite concealed by the pots or foliage of other plants, and the deception is complete. Too much cannot be said in praise of the Phlox for decorative purposes, but to be utilised in the greenhouse the plants must be grown in pots; it will not answer to cut the spikes in the same way as those of the Gladiolus. One of the principal marks in their favour is that they are so easily grown, and are exactly suited for the owners of small gardens, who have not much time to spare to look after their plants. In their culture glass may be dispensed with entirely. If the cuttings were struck according to previous instructions, and grown-on in pots out of doors, the plants will now be in full beauty, and may be arranged in the greenhouse.

Azaleas are now in a moist atmosphere and a stove temperature, and to grow this plant well no other treatment is preferable to this. Our plants were potted shortly after they had done flowering, and placed in heat at once; they soon show that the treatment answers by the way in which the new rootlets lay hold of the fresh fibrous peat in all directions. Heath, Epacris, and all the more robust-growing New Holland plants are better out of doors until the first week of September; they must be removed indoors two weeks earlier than this if there is no provision made to throw off the rains.

FLOWER GARDEN.

Layered the Carnations and Picotees, and will put in cuttings of all Zonal Pelargoniums as soon as possible. These are planted in boxes in preference to placing them in beds out of doors; it is not always convenient to lift and pot the young plants before the autumn frosts set in, and the boxes can be removed under a glass protection at any time.—J. DOUGLAS.

PROVINCIAL HORTICULTURAL EXHIBITIONS.

[SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held. Although we cannot report them fully, we shall readily note anything especially excellent, and we wish for information on such specialities to be sent to us.]

	AUGUST.		AUGUST.
Birmingham	14 and 15	Wotton-under-Edge	25
Rylhope	18	Banbury	25
Keelby, Wilts	19	Budley (Worcestershire)	25, 26, and 27
Eckington	19	St. Andrews	26
Cardiff (Glamorganshire)	19	Sherborne	27
Chard	20	Kempsey	27
Deal and Walmer	20	Gloucester	27
Haverfordwest	20	Tynemouth and S. Northumber-	
Reading	20	land	26 and 27
Belfast	20 and 21	Skircoat (Yorkshire)	28
Eastbourne	21	Sandy	28
Keighley	21 and 22	Perth	28
Todmorden	22	Chailly	28
Shotley Bridge	22	Falkirk	28
Wakefield	22	Bishop Auckland	28
Warkworth	24	Kilmun, Strone, and Bannore	29
Farnham and Aldford	25	Thornhill (Yorks)	29

TRADE CATALOGUES RECEIVED.

William Paul, Waltham Cross, London, N.—*Bulb Catalogue*.
Downie, Laird, & Laing, Forest Hill, London, E.C., and Edinburgh.—*Descriptive Catalogue of Bulbous Flower Roots and Spring-flowering Plants*.

TO CORRESPONDENTS.

* * It is particularly requested that no communication be addressed *privately* to either of the Editors of this Journal. All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only.

We also request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Books (*J. Mayall*).—There is no manual for the aquarist in the series you mention. (*Mrs. T. Cartledge*).—You will find sufficient directions for the cultivation of Asparagus in "The Kitchen Garden," of the series of "Manuals for the Many," published at this office, price by post 4½d. (*A. Learner*).—The "Cottage Gardeners' Dictionary," price 6s. 6d.; or, if that is too expensive, "The Garden Manual," price 1s. 8d., free by post. Both can be had from this office.

CRYSTAL PALACE AUTUMN ROSE SHOW (W. J. W.).—No such show has been announced.

WAX FLOWERS (*Admirer*).—What do you mean by "wax flowers most easy of cultivation?"

LILIUM AURATUM (S. E.).—There must be something constitutionally weak in the bulb of your *Lilium auratum*. It is just in the place where it ought to succeed. It may be that the habit of not opening is natural to that particular plant. We can only recommend you to throw it away and get another.

CLEMATIS FAILURES.—SELECT BEDDING GERANIUMS (M. H. M.).—Lady Cullum, golden variegated; Miss Kingsbury, silvery variegated; Rev. F. F. Ferns, deep crimson; Charlie Cusson, brilliant scarlet; Mrs. Lowe, bright pink; Mrs. Vincent, crimson. The failure of the Clematis is probably owing to the drought. Do not hastily remove them; the brown-looking and apparently dead branches of such exhausted plants often retain sufficient vitality to yield growth of extraordinary vigour with suitable treatment. We had several plants which were in a similar condition to yours last season—that is to say, they started into growth in spring, growing freely for a time, but the bark and foliage became brown and dead-looking prematurely. Water was immediately and abundantly given to the roots, a quantity of rich manure forked into the soil in winter, and this season the whole of the plants have recovered, growing with remarkable vigour, and yielding a fine display of flowers.

VICTORIA REGINA VIOLET—VARIOUS (D. F. J. K.).—This should be treated in precisely a similar manner to The Czar, and it will flower simultaneously with it. Of Pansies, Hooper's Marquis will probably suit you. It is a bright bronze colour, and flowers freely and continually throughout the season. Apply to the gardener, Morningside, Kildermunster.

ORANGE FUNGUS ON ROSES (*Inquirer*).—Mr. Radclyffe recommends, and uses most successfully, 2 ozs. of blue vitriol dissolved in hot water, and added to two or three gallons of cold, to be sponged over the leaves.

RECENTLY-PLANTED FRUIT TREES BLOSSOMING (*Perplexed*).—There is nothing unusual in the trees planted last winter now blossoming. We have some large pyramid trees lifted last autumn that are now in full blossom. Remove the trusses of bloom, and water if the weather continue dry. Manure at planting is not good, but it would cause the trees to break freely, and then fall away, owing to the dryness of the season. The stored-up sap is sufficient to cause the trees to start freely into growth, but there being no roots to sustain the growth, this, if roots are not speedily emitted, languishes, and the trees not infrequently die, branches in some cases partially only. Your trees will be all right another season; this year they only show the effects of the removal.

SITE FOR GREENHOUSE (*Idem*).—The situation, as your sketch shows it to us, will not suit for flowering plants; but it would answer for variegated and fine-foliated plants, and for Ferns especially. It may be that it would have sun in the middle of the day, and in that case it would suit flowering plants pretty well, but it would then be necessary to shade the fernery from March to October. The site, however, as your sketch shows, is not a good one. If it have sun at all, it will only be in the hottest part of the day, and fixed shading will only be available, as you are absent at that time of day. The shading would be necessary to keep the plants from scorching.

STORING SEED POTATOES (*Sabbib*).—As you cannot store them on shelves, we should thoroughly turn them by exposing them on the surface of the soil or on the floor of a shed, turning frequently if laid more than one layer deep, and then spread them in a cool cellar or other place safe from frost, in layers not more than 6 inches thick (3 inches would be better), and between each layer of Potatoes put 3 inches thick of dry sand or ashes, covering the upper layer with a 6-inch thickness of sand or ashes. If they are placed outdoors in a "pie" or "hog," a dry situation should be chosen, and a straw and earth covering given in severe weather. The Potatoes should be kept from sprouting; or when they begin to sprout they should be removed, and placed eye-end upwards in shallow boxes or upon a floor, so that the first sprouts may be preserved. Plant when the sprouts are from one-half to three-quarters of an inch long.

APPLYING GAS LIME (*Idem*).—It may be applied to land a little prior to inserting the crop, at the rate of twenty bushels per acre, distributing it equally over the surface, and ploughing or digging in before sowing or planting. Double the quantity may be applied in autumn if the ground is not required for cropping before spring. A ton of gas lime is a sufficient quantity to mix with ten tons of soil. Thoroughly mix the lime with the soil, turn over once or twice, and apply as a top-dressing to grass land at the rate of ten or twelve loads per acre. Gas lime is a hydro-sulphuret of lime with a little ammonia.

CULTURE OF ANARYLLIS LONGIFLORA ALBA AND ROSEA (C. R. H.).—These are better known as *Crimum capense album* and *rosea*. They are hardy in sheltered situations and light well-drained soil. They have not flowered because they are not strong enough. Give them abundant supplies of water when growing, and in winter only give enough to keep them fresh, assigning them a light and airy position in a cool house. Repot in spring in yellow loam three parts, and one part peat, with a sixth of sand, and good drainage. They will flower when they have more strength.

ARRANGING STOVE, VINERIES, AND GREENHOUSE (H. P.).—You could not do better than arrange your proposed houses into four equal divisions of 20 feet each, though the size of the departments depends principally upon what you wish most for. Probably you care most for fruit, and would content yourself with a moderate extent of glass for flowers; and in this case we should have an early vinery of 18 feet, which will accommodate six Vines, and a stove of equal size may form the centre. A late vinery of 24 feet, and a greenhouse of 20 feet, would take up your length. The greenhouse we should have at the most desirable point of entrance at the end of the range, the stove next, then the early vinery, and the late vinery at the other end of the range. Two 4-inch pipes along one end and the front will be sufficient for the greenhouse, four along the front and both ends for the stove, the same number for the early vinery—that is, if Grapes must be had in May or early in June, whilst for the late vinery two pipes along the front and ends will suffice. The piping should be so arranged that the houses can be heated separately or together. As to the boiler we cannot advise; take from our advertising columns that most likely to meet your requirement, and write to one or more of the advertisers, stating what you require, and asking for an estimate.

BELGIAN GARDENS (*Old Subscriber*).—At Ghent, Linden, Rue du Chameau; Van Houtte, Leideberg; Jean Verschaffelt, Leideberg; Auguste Van Geert, pres de la station de St. Nicolas; Palliere, Leideberg. Charles Van Geert, Antwerp; Jardin Botanique de l'Etat, Brussels; Botanic Garden, and that of M. de Camart d'Hamel at Malines.

ROSE RUE D'OR (D. D.).—You can obtain it from any of the Rose-growers.

CLIMBING DEVONJENSIS NOT BLOOMING (*J. Hobbs*).—If your plants have only been planted one season, it is the very best thing that could happen to them not to bloom the first year if they are making good growth. Allow all the growth you can without stopping, and you are sure of good bloom next year. With climbing Roses to cover a wall, or trellis, &c., it is far better to insure growth the first year rather than blooms.

MARSHAL NIEL ROSE NOT FLOWERING A SECOND TIME (*Constant Subscriber*).—The same remarks as above very nearly apply here. Marshal Niel is very apt to make fine vigorous growth after blooming, and the second bloom will then come on side shoots from the stronger growth at a later period. So long as you can have vigorous growth you are sure sooner or later of good blooms, and it is better to wait patiently. You need not be afraid of over-feeding, it will be sure to reward you in the end.

SULPHATE OF AMMONIA FOR ROSES (G. W. J.).—It is good for all Roses as well as Tea Roses when carefully used in about the quantity and proportion you name—1 oz. of guano and a quarter of an ounce of sulphate of ammonia to the gallon of water. If the guano is old more may be used.

ROSES OF PORTUGAL ROSE NOT OPENING (*Idem*).—It is very often a bad opener, and hardly worth much trouble. It is most likely to succeed on its own roots in a sheltered situation in good garden soil not too heavy nor too light.

GROWING ROSES ON SHALLOW SOIL ON FELLEGIOUS SUBSOIL (*Milland Country*).—If you dig out all your beds 2 to 2½ feet deep, and incorporate your irony subsoil in about the following proportions—three loads of the upper soil to one of your irony subsoil and one of the blue clay, and add one load of decayed leaf soil and one of manure, you will succeed in making a good Rose soil. The different soils ought to be carefully mixed; the best way is to cart them to a heap and turn them over twice before putting them into the beds, but if this entails too much trouble and expense have the beds well

forked over twice before planting. The blue clay requires a rating and breaking-up before it is good for Roses. We should recommend Roses on the Maucetti or seedling Briar. The time is not far distant when standards will be things of the past, at least for permanent planting, as the blooms, except in very exceptional cases, deteriorate each year after the first or second season. There is no reason why you should not grow exhibition Roses. The worst soils under proper care will produce good blooms. Witness the success of the Rev. J. B. M. Camm, of Monkton Wyld, whose soil naturally is about the worst for Rose-growing that could be found. We could have given, perhaps, more accurate advice if you had stated what was the nature of your upper soil, but we conclude from its being over the iron subsoil, that it is somewhat light and gravelly. As a broad rule the Dog-Rose stock succeeds best in strong soils, with unctuous clay, &c.; the Maucetti on good garden soils and light ground; and strong-growing kinds, as Gloire de Dijon, General Jacqueminot, John Hopper, and Marchal Niel on their own roots.

SEEDS NOT GERMINATING (W. G. M.).—If the seed has been in a pot eight months and is yet sound, it may yet vegetate. You cannot "make" seeds vegetate before their time. Broken sea shells can be obtained from any of the principal nurserymen, or from dealers in sand, loam, &c.

NEMOPHILA (Spring Garden).—*Nemophila insignis* will, no doubt, stand the winter in County Armagh. It does so in England, or, at least, the seeds which are in the ground grow very early in spring, and the plants are gay in the spring garden.

ANTHRURUM REGALE (J. L. W.).—This may be shown either as a flowering or as a line-foliated plant. If it is in flower, of course it may be shown as a flowering plant, but it would not help the collection much.

TWELVE TEA ROSES (Tea Rose).—The best are *Souvenir d'Elise*, *Souvenir d'un Ami*, *Niphetos*, *Devonensis*, *Catherine Mermel*, *Marie Van Houtte*, *Madame Jules Margottin*, *Madame Willmer*, *La Belle Lyonnaise*, *Comtesse de Nadaillac*, *Madame Fretot*, *Perle de Lyon*.

NOISETTE ROSES (Idem).—*America*, *Celine Forestier*, *Maréchal Niel*, *Triomphe de Rennes*.

PEAR ANNA NELIS (F. C.).—This Pear is not worth growing.

PLUMS (John Ferme).—The only way we know of for drying Plums is to place them in a slack oven after the bread has been withdrawn, and gently dry them; take them out, and repeat the process till the fruit is well shrivelled. They will then keep for some time.

VINE LEAVES (G. L. H.).—Your Vines are infested with thrips. Fumigate immediately with tobacco smoke. The best remedy to destroy brown scale on Peach trees is to wash them in water when the leaves are off with a strong solution of Gishurst compound, 8 ozs. to the gallon of water.

VINES IN GREENHOUSE (A. L.).—Grapes can very well be grown in such a house as you specify. If you can place it in a position for the lights on one side to slope to the south, all the better; but if not, the west will do.

GRAPES AND PEACHES DISEASED (J. Bryan).—There can be no doubt that the roots both of the Vines and the Peaches have got into ungenial soil. Is your soil heavy and not thoroughly drained? The fruit has every indication of this being the case.

VINE FOR COOL GREENHOUSE (Flycatcher).—As a companion to your Black Hamburgh you may have Black Prince, or, if you prefer a white Grape, White Muscadelle. Cut down the Gorse in the winter time, not now.

GRAPES (F. Stanford, jun.).—The Grapes you sent appear to be Muscat Hamburgh, a very excellent variety. There is no special cultivation for it, but it requires a little more heat than the Black Hamburgh does when grown in a cool vinery. If you give a little heat at blooming-time, and till the berries are well set, you will succeed.

SEEDLING CARNATIONS (W. E. A.).—Your Carnation does not differ from many others which we have seen. Seedlings bloom much more freely than plants propagated by layers, and you will probably find on propagating your seedling in this way that it will to some extent lose its free-blooming habit.

GREENHOUSE LAMP (A New Subscriber).—The lamp you mention will not be injurious to plants, provided you have ventilation in the house. We presume the laps of the glass are open. If such is the case there will be escape enough for any fumes that could cause injury.

FACING OLD BRICK WALL (D. Bridg).—As you say it will cost you £60 to face your old brick wall, and you are averse to incur that expense, the best thing you can do is to fill up the defects with cement, and wire the walls, to which you can then fasten the fruit trees. As regards your Peach trees, cut out all the gross shoots now, so that the wound may heal over this season, and so prevent gumming. It is not they which produce the fruit.

COMMON BRAKE AS COVER (J. Rogers).—The only way to introduce the common Brake into grass land to serve as cover, is to transplant it in masses. It will soon spread.

FRUIT-ROOM (R. F. B.).—We should prefer the dark room for fruit. You ought to have some means of ventilation; if you have not, you must use a room with a window, which you can board or otherwise cover-up, reserving sufficient for ventilation.

BUILDING A FRUIT-ROOM (Cornubia).—The walls should be of bricks or stone, and not less than 14 inches thick. In a house 15 feet by 12, one window will be necessary, which should be made to open, and so serve the purposes of ventilation. The best internal arrangement is a staging of laths, one tier above another, the staging to be 3 feet wide, and 1 foot 9 inches apart. If your house were wide enough, as it would be if 15 feet wide, there might also be a staging in the centre that would be 4 feet wide, which would give 6 feet for the two side stages, 4 feet for the centre one, and 2½ feet for a path all round. Drawers would be an extra expense, and are not necessary. Any builder in your neighbourhood would be glad to give an estimate for it. You will find a long article on the subject at page 80 of the number for January 22nd of the present year.

CATERPILLARS ON PLUMS (Mootee).—The only way to get rid of them is hand-picking.

SPIDER IN VINERY (D. M.).—The spider is not uncommon in England. It will do no harm to either the Vines or the fruit, as it feeds on other insects.

NAMES OF PLANTS (Frank Corbett).—*Achillea Millefolium*. (*Britannica*).—1, *Abies Smithiana*; 2, *Abies excelsa*; 3, *Abies Douglasii*; 4, *Wellingtonia gigantea*. (*Silly Hill*).—*Hypericum calycinum*. (*A. Fisher*).—*Opuntia Salicifolia*, *Parm.* Brazil. Wants rotting and more water. (*Amer.*)—*Buddleia Lindleyana* (*Bot. Reg.* 32, t. 4.). (*L. C.*, *New Abbey*).—*Cystopteris fragilis*, var. *dentata*, *Hook.*

POULTRY, BEE, AND PIGEON CHRONICLE.

DORKINGS AT BUCKINGHAM SHOW—POULTRY MISFORTUNES—CRYSTAL PALACE SHOW.

I was very much amused on turning to the Journal of Thursday last, to find that your correspondent from Buckingham had pilloried me for sending certain birds to the Show there which, according to his account, displayed signs of over-exhibition. Now, I do not in the least object to your correspondent's good-humoured remarks, but I should like to set him right, as well as myself, before your readers. My birds were not in such good condition as I could have wished, not because they had been over-exhibited, but because they had begun to moult. The moult this year has come on so suddenly that the interval between the last day of entry and the Show has been enough to destroy the chances of otherwise good birds. That my pen ought to have had some chance of success, if in proper trim, is clear from the fact the cock was a winner at the Crystal Palace, and one of the hens was first at Birmingham. I must, however, admit the justice of the award, and compliment Mr. Jeffries on his firmness in declining to give a cup to birds that were not, when exhibited, worthy of such a prize. As it was, I doubted after I had seen the pair selected for the Show whether I should send at all, and decided in the affirmative only because Buckingham was near, and the entries apparently few. It is no easy matter to select a good pair of Dorking hens even from a large yard, in the months of August and September, and if the Buckingham Committee will be content next time with a single hen, I will endeavour to send one that shall be neither "tattered," moulting, nor "over-exhibited."

It affords, I believe, pleasure to some folks to hear of the misfortunes of others, and I daresay a few of my friendly rivals will not be sorry to learn that I have had rather a disastrous time of it this spring. First of all, the best hen I ever bred fell ill of cancer in the throat. After she was dead I discovered that some infallible recipe had been found in America, and if I mistake not, this was given in the Journal not very long since. I applied, or rather my man applied, for I have very little time to attend to such things, caustic again and again to the sore, but in vain. The disease at last made its way outside, and closed one of the eyes, whereupon the case was abandoned as hopeless. Next, her sister showed indications of something being wrong with one of her feet, and is now, alas! a confirmed gouty subject. I see, unfortunately, signs of gout in other good birds, and there is no anti-gout sherry or other such specific that will either remove, alleviate, or prevent this hideous complaint. Moreover, the heavier your birds are, the more liable they are to it!

In my simplicity I could only hope that my early chickens would make-up for my losses—a delusion. Although we keep our places as clean, I think, as is possible, our youngsters contrived to catch roup. I had never seen the disease in chickens before, and, indeed, did not recognise it at first. A friendly voice from Rochdale at length warned me of what was likely to happen, but unfortunately too late, and so I have been compelled to sacrifice my hopes and slay not a few of my most promising birds. Some, however, survive, I trust to avenge the memory of those who have passed so prematurely away! Verily, "he who dabbleth in Dorkinga dealeth in disappointment."

As I am writing to the Journal I should be glad of permission to touch on one or two other topics. Can any of your readers recommend a good incubator? I sprinkle the eggs before hatching, put them in water, and yet fail as much as ever. My man sometimes announces eight or ten chickens the day before hatching, and only one or two come out alive. This is particularly the case when the sitting hens are heavy; they seem with their weight to crush the chickens just as they are hatching. I feel disposed to try an incubator in such cases for forty-eight hours, and then place what chickens there are under the hen that has been sitting.

And now a word on the Crystal Palace Show. I venture to hope that this year we shall have pairs of pullets instead of the cock and hen class, at all events among the Dorkings. The single-bird system is now being carried out *usque ad nauseam*; and a class for pairs of pullets would, I believe, bring as many or more entries than the class referred to, and would to my mind be more interesting. To breed a pair of good birds must require more skill than a single one, and the fortunate possessor of one good bird ought not to be rewarded as much as he who has two that are not only good, but uniform in goodness. In fact, I believe the system of showing pairs tends to encourage the *boni fide* breeder rather than the man who buys-up a few good birds and then shows them singly all round the kingdom.

May I also suggest to the same Committee that it would be very advisable to station a man at the Clapham Junction Station on the days of the arrival and of the departure of the birds? I have heard from several quarters strange stories of the manner

in which the fowl-baskets are rolled and pitched about there, and in any case no harm would be done by a precaution of this kind. Lastly, I would suggest that if a person should have the good fortune to win a cup, he should receive, if he likes, the money in full instead of the cup. Certain good people, whose names I entirely forget, wrote to me after the last Show, suggesting that I should select a piece of plate or some article as a cup. Now, I cared neither for a piece of plate nor any of their articles, as I happen to have a *penchant* for photographs, and fancy I can show some rather good specimens which I have purchased as poultry trophies. Upon declining to buy of these good folks, who, I suppose were authorised by the Committee to write, I found I was mulcted of a certain proportion of my prize. Of this I do not complain, as due notice was given; still, I think a flourishing body such as the Crystal Palace Committee is supposed to be, might pay in full, as is now usually done elsewhere.—E. BARTON, *Berkhamsted, Herts.*

PROPOSED CONTINUATION OF BRISTOL POULTRY AND PIGEON SHOW.

WE have received the following circular:—"The Bristol Poultry and Pigeon Show held in January last was again a loss to the Committee of about £70, and at a meeting recently held it was decided to discontinue the Show and dissolve the Committee. It does seem a disgrace to a large city like Bristol, that such should be the end of a Society which has struggled against hope and loss for seven years.

"It could not be expected that a small body of gentlemen should carry on the annual Exhibition in the face of so serious a loss year after year, but I still think it might be done if everyone in Bristol and the neighbourhood who feels an interest in the matter would assist. With this object in view I am willing to undertake the gratuitous management of another Show, provided I can get twenty gentlemen to assist the undertaking in so far as to join in the moderate guarantee according to the subjoined form.

"The fee paid to our late Secretary being thus saved, with a fairly successful Show I hope there will be no loss, or at most such a trifling deficiency as would not be felt when divided amongst so many; in which case, of course, a debtor and creditor account will be submitted to the guarantors.

"Any larger subscription or cup for any particular class which you may wish to give will be thankfully received, and will be considered equivalent to the guarantee.—E. CAMBRIDGE, *Horfield, Bristol.*"

[We agree with Mr. Cambridge that Bristol ought to be able to sustain a poultry exhibition as successfully as Birmingham, and to aid him in his praiseworthy effort we have authorised him to offer a five-guinea cup. This is not to be a precedent, for a poultry show is not needed where it cannot be self-sustained.]

PERMIT me to say a word on the above subject. There have been eight annual shows held in Bristol: the place for exhibition excellent, the management good, and the birds exhibited of first-rate quality. To those residing in the south-west of England who have an eye for poultry and Pigeons each show has been a rare treat. I use the word "rare," because shows do not abound in these parts. But—and there is usually a "but" to everything—every show has entailed a heavy loss on the Committee. Last year the loss amounted to £70—not a trifle to lose. Still the lovers of poultry at and near Bristol are inclined to persevere, and have issued a circular with the same heading as this article. Mr. Cambridge offers to undertake "the gratuitous management of the Show for next year provided he can get twenty gentlemen to assist the undertaking in so far as to join in a moderate guarantee in the following form"—viz., a promise to subscribe annually one guinea to the Show, and in addition an equal share with twenty or more gentlemen in the loss, if such there be, provided that share does not exceed the sum of £2 2s. Surely twenty good and true men may be found to undertake this, at most an outlay of three guineas! I have before recommended cage birds to the Bristol Committee, knowing that as there are more single ladies living at Clifton than any other place in England, there must be a great number of lovers of Canaries and other song birds, for the larger number of admirers at least of the Canary, that parlour pet, are ladies of means and leisure.

I will now tender another piece of advice to my Bristol friends, and that advice shall take the form of an anecdote. The owner of a house was exceedingly troubled with rats, and tried all sorts of plans to get rid of them, but still they came, and still the owner suffered loss. At last the old-fashioned farrier of the town, a man of no education, and who never knew the name of any disease from which any of his equine patients suffered, but generally knew how to cure them, said he could for a five-shilling fee undertake to recommend a certain cure, and that the owner should cease to suffer loss. The old farrier came, looked through the house, nodded knowingly, and having seen all the damage done, and the five-shilling piece having

touched his palm, then he closed the door for fear of listeners, approached the owner's ear, and whispered "Cats!" Now I recommend cats to cure this Bristol malady. Wherever cats are shown crowds come to see them. I nearly had my coat torn from my back at the Birmingham Cat Show by the densely-packed throng. The Rifle-drill Hall at Bristol would be an excellent place, and, unlike the Birmingham wooden booth, would be well ventilated.

I say, then, "Cats!" and the Bristol Committee would find that cats meant cash.—WILTSHIRE RECTOR.

THE CARRIER PIGEON.

THE Carrier should be a large bird; large in body, large in limb, and large in presence; a bird with style, of the quality noble. Not a bird deformed by an immense beak or distorted wattle, but a bird of proportions. Who cares for a long hook piercing a wrinkled bunch of excrescence, attached by a short neck to a runtish body? Wring off such heads and feed the bodies to the dogs, and rid the earth at once of two-thirds of the Carriers now encumbering it. We want the blooded style, the thoroughbred, not the Runt head, with its heavy Flanders look. Let the Runt retain that; it is bred for the pot and deserves all the weight that can be attached to it. Who of us would choose a woman whose ankles were beef to the heel? Not one; and we should be as well educated on the symmetry of Carriers.

The body of the Carrier should be large, broad across the shoulders, the muscles prominent and firm; the feathering should be hard as that of the Game fowl; the bow of the wing must be prominent, the flights long and smooth with a wide stretch—say 35 inches, and should lap above the tail; the leg must look large in proportion to the body, the bird standing high; the feet must be red, the toes long and well spread; the neck long and thin, closely covered by small hard feathers. The head is of itself a study; most of the properties are claimed to lie there, and so much attention has been devoted to it that the equally valuable size, shape, and style have almost ceased to exist. The result is that any dumpy mass of feathers with a fungus and a hook at one end is called a Carrier, and takes rank by reason of the length of its hook. To my mind this is a very great mistake, and a large, firm, reachy bird, with a bold, fearless style, should always take precedence of a dumpy, no matter if there is a difference of a sixteenth of an inch in beak or wattle.

The properties of the head lie in the beak, wattle, eye, and skull. Much attention has always been paid to the beak, and there are many persons who are called beak fanciers, because they set more store by that point than any other. Their object is to attain a long, straight, and thick beak, and they will sacrifice everything else to accomplish the purpose.

I have tried a number of experiments on beaks, and have come to the conclusion that the least done artificially to increase the length the better. One thing, however, is very important—the young birds should be fed by the old ones, that is, the old Carriers, for no other variety has mouth large enough to feed the young without compressing the soft, cartilaginous bones of the beak, and interfering with its growth. This is a very simple thing, but to any observer it is very suggestive, for not even Dragons can feed young Carriers satisfactorily.

The beak must be long and straight; for crookedness, even of the slightest, is a disheartening eyesore; crookedness either lateral or downward. The curve downwards is very obnoxious, and some of the Roman-nosed birds look more like voracious vermin than "kings of Pigeons."

Thickness is necessary to preserve the proportions of the beak and prevent its becoming spindling. The mandibles must also fit, the lower within the upper, that the bird may not be open-mouthed or distorted. The fitting of the parts of the beak is seldom perfect, by efforts to increase the length, or by the compression by the smaller beaks of feeders, a deformity consisting of a pinching-in of the sides of the upper half near its point is produced, and the shape of the part is destroyed. One hundred years ago an inch and a half was considered a long beak, but in those days more attention was given to the other properties; now the same measurement is thought useless, and from one and three quarters to two and a quarter are the extremes which contain the average lengths. The measurement is from the tip of the beak to the centre of the eye. Very long measurements can sometimes be obtained from the Roman-nosed birds by using a tape around the curve, but it is fallacious, as honesty determines the direct line as the standard.

The wattle is a wearisome thing to wait for; it is seldom of much importance until the bird is two years old, and it continues to improve to the fourth year. I have bought a good many Carriers, of which it was said, "When they get a little older the wattle would be very large." After watching three years I turned out one old bird to fly with the commons, and ten years afterwards his wattle had increased so much as to entitle him to rank with Dragons. By the way, that bird was, to my knowledge, thirteen years old, and he must have been a year old when I bought him. I also know of a Horseman that has been

in the same loft nine years—pretty good specimen of longevity in Pigeons. The wattle must be broad across; an English walnut, with the long diameter across the back, would be a fit illustration; broad from side to side, short from before backwards, high and tilting forwards. It looks like a cauliflower, or fungous growth, is pinkish-red in colour, and hard to the touch in old birds, but like velvet in the young. When the bird is diseased, it becomes white or very dark red, the latter being the condition when the bird is gorged by overfeeding and suffering from vertigo. When the birds are moulting, or in bad health, the wattle shrinks very much. Some fanciers desire the wattle to extend under the lower beak, but it is generally preferred that this should not be. The circumference of the wattle of the beak should be over $3\frac{1}{2}$ inches.

The eye is an exceedingly important point with the Carrier.

Upon it depends much of the impression the bird makes upon his admirers. A dull listless eye will doom the best bird in other respects. Like the same organ in man it is the sentinel of the brain, and upon its alertness depends the judgment passed of the general physical powers. Its glance should be quick, comprehensive, and confident. The colour is a bright orange red, the redder and more fiery the better. It is surrounded by a broad cere, which is of the same nature as the wattle of the beak. This cere must be smooth, regular, and of equal width all round the eye. It is exceedingly difficult to develop it perfectly at all points, and it is most apt to become thin at the posterior part of the circle, thereby winning the name of pinch-eyed. A cere the size of a silver quarter, or about an inch and a quarter in diameter, is a good one.

The skull has only of late years commanded attention. At

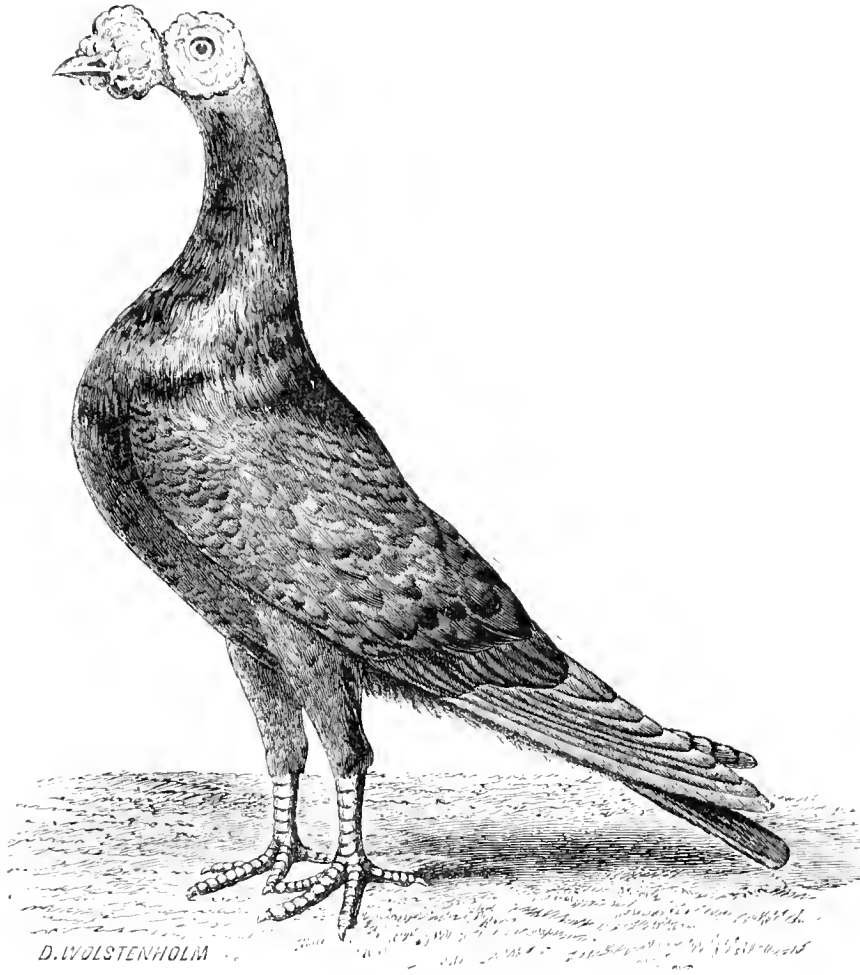


Fig. 46.—ENGLISH CARRIER PIGEON.

first the fanciers were indifferent whether it was short and thick, or long and narrow. Good taste, however, prevailed, and the demand is for long narrow heads, flat on top or with a slight depression in the centre. Between the wattles of the eyes, as they appear above the head, the distance must not be over half an inch.

Carriers are of two colours, or rather of one colour—black, with the adjunct colour, dun, by the aid of which the deeper black is maintained in its purity, a cross being often necessary to prevent the black from becoming rusty or washed out.

Reds, whites, yellows, and blues, have been bred, but they are not of much account, and have ranked little better than Horsemen or Dragoons. They occupy about the relative position that paste diamonds do to the genuine articles.

I have been in the habit of judging Carriers by the following standard:—1st, size; 2nd, shape; 3rd, style; 4th, colour; 5th, head; 6th, eyes; 7th, beak; 8th, wattle.

I use more points than the writers recommend, and place the most neglected first, as it is now easier to obtain a good head-

and-beak bird than one of good style and shape.—(*American Fanciers' Journal*.)

[The above article on the Carrier is from the same lively pen from which emanated that on the Fantail, and which was inserted in this Journal a short time since. In passing, I will just notice that our consins across the Atlantic have now two papers devoted to poultry, Pigeons, &c.—the "Poultry Bulletin" and the "Fanciers' Journal." This fact shows the great attention recently paid to these subjects in America.]

Dr. Morgan's article on the Carrier will be read by all with interest, for it is so well written; but everyone will not wholly agree with him. Thus English fanciers, or at least exhibitors, will probably differ from him in what he says upon the head and beak of the Carrier, points the most difficult of all to breed for, and whatever is most difficult to attain English fanciers think most highly of. Still, the words of the lively doctor will do good. We have at shows too many Roman-nosed birds with beak out of proportion to bird, and these beaks the result of art, not nature. More regard for style would be well. Grace in the

Carrier cannot exist with hooked beaks and wide-gaping mandibles. Dr. Morgan is a little incorrect as to narrowness of the skull not having been attended to until recently. Old Moore dwelt upon "a long narrow head," and speaks of the head's "length, narrowness, and flatness." Again, Dr. Morgan would scarcely speak of "Blues not being of much account" had he seen our recent Crystal Palace Shows. Blues in England are greatly improved, and may now be seen of first-rate quality. I point out these little matters, not to depreciate, but to correct from an English point of view; of the American I can say nothing. Dr. Morgan's writing is excellent, and from the freshness of his descriptions and evident knowledge of his subject will be sure to attract attention.—WILTSHIRE RECTOR.]

[We reproduce from our number of April 7th, 1870, the accompanying figure of a high-bred English Carrier, drawn for our pages by Mr. Dean Wolstenholme.—Eds.]

MELTON MOWBRAY POULTRY SHOW.

THIS Show progresses annually in the most satisfactory manner, the present year's entries exceeding those of last season by nearly forty pens. It is not, however, simply as to numbers that improvement is limited, for, on the contrary, in very many of the classes the competition could not be exceeded even at the largest of such meetings. The Committee, practically conversant with the best means to insure success, adopt them. The Show, which includes an excellent floricultural and horticultural display of the highest character, takes place under three very spacious tents, which in every case are admirably fitted-up for the purposes to which they are applied; and each committee-man, having his fixed post, performs his duties with undeviating regularity, so that the most perfect order and punctuality prevail in every department. The hurry and bustle that so frequently mar many shows are at Melton entirely unknown. The grounds in which the Show takes place are especially well suited to the purpose, abundance of seats beneath trees now in full beauty adding much to the satisfaction of those visitors to whom a day's rural pleasure is a great boon, as a change from close business occupations. The weather proved delightful, and the Show was attended by most of the surrounding gentry.

In Grey Dorkings the first-prize pen was excellent, but the others were much inferior in quality. The Spanish fowls were not in show condition, as, indeed, of this breed, few are to be found just at this time from the unfavourable season they have endured. *Cochins* were decidedly good, and to Mrs. Williamson's pen of White the extra plate prize for the best pen of poultry in the Show was allotted. It is almost needless to say more than that these unusually perfect fowls were shown in faultless condition, as, indeed, were the same lady's Light *Brahmas*, which so closely competed for this special prize. The Judge himself stated "it was an injustice to the rejected pen either way," and therefore devoted considerable time in making his final decision. The Dark *Brahmas* were not equal to the Light ones. *Hamburghs* were fair classes, but the competition was, as to numbers, somewhat limited. *Game* (mostly deeply moulting) were fine, the Brown Reds being decidedly the best of any, a "brick-breasted" Brown Red cock, with hen, taking the principal Game prize in the general classes, but beaten for the special Game prize by a single cock, also a Brown Red, shown in capital feather and condition by Mr. Andrew Peake, of Somerby. A remarkably fine hen in the first-prize pen is the only remark called for as to the *Houdans*.

A very fine pen of Malays, well-grown chickens, adult Black *Hamburghs*, and *Crève-Cœurs*, were the winners in the Variety class. All three of the prize pens of Game *Bantams* were Black Reds, but none of them were in good feather. Very superior Gold-laced Sebrights (chickens) and Speckled Japanese (adults) won in the Variety Bantam class, but for the third prize there was not a competitor. *Turkeys* were remarkably fine, as were the *Geese*, the second-prize White Spanish *Geese*, a rare breed, being shown in the highest of condition. The two special classes, one for chickens, the other for ducklings, for table uses, caused a first-rate entry of most suitable specimens.

A grand collection of *Pigeons* added greatly to the interest of this Show. The Carriers, to which breed the extra plate prize for the best pen of Pigeons shown was given, were unusually good, and two such pens as those shown by Mr. Edmund Walker, of Branston Gate, Leicester, are rarely to be selected from the same loft. The *Almonds*, *Pouters*, and *Fantails* were specially good, and the *Archangels* were a large entry of first-class birds. A grand pair of Black *Barbs* and a pair of Fire *Pigeons* took the Variety prizes for Pigeons. Mr. Cashmore, of Sheepshed, was a large exhibitor, and very successful among the Pigeons.

There was a capital show of *Rabbits* on view, the heaviest weight being 15 lbs. A class for young Rabbits, not to exceed twelve weeks old, produced an entry of thirteen pens of unrivalled excellence.

DONKINS.—1, M. M. Cashmore, Sheepshed. 2, N. Whitechurch, Melton Mowbray. 3, M. Kew, Market Overton.

SPANISH.—1 and 2, M. Brown, Ab-Kettleby. 3, J. T. Hincks, Humberstone. *COCHIN-CHINA*.—*Cinnamon or Buff*.—1 and 2, H. V. Story, Ruddington Manor. 3, M. Kew. *Any other variety*.—1, Cup, and 3, Mrs. A. Williamson, Quenborough. 2, M. M. Cashmore. *GRAHAM Pouter*.—*Light*.—1 and 2, Mrs. A. Williamson. 3, J. T. Hincks, Humberstone. *Dark*.—1, H. V. Story, Ruddington Manor. 2, M. M. Cashmore. 3, G. Milford, Melton Mowbray. *HAMBURGH*.—*Golden-pencilled*.—1, J. Ward, Barton Hill. 2 and 3, T. Wild, jun., Burton Lodge. *Silver-pencilled*.—1, M. M. Cashmore. 2 and 3, No competition. *HAMBURGH*.—*Golden-spangled*.—1, J. Ward. 2, M. M. Cashmore. 3, G. Hewitt, Melton Mowbray. *hc*, T. Wild, jun. *Silver-spangled*.—1, Hughes, Oakham. 2, M. M. Cashmore. 3, C. Thurbury, Salthay. *GAME*.—*Black-breasted or other Reds*.—1, M. M. Cashmore. 2, A. Peake, Somerby. 3, A. E. Mitchell, Long Chawson. *Any other variety*.—1 and 2, N. Whitechurch, Melton Mowbray. *Any variety*.—*Cock*.—1 and Extra, A. Peake. 2, C. Chambers, Oakham. 3, T. Shippam, Melton Mowbray. *HOUKANS*.—1 and 3, J. French, Melton Mowbray. 2, J. T. Hincks, Humberstone. *ANY OTHER VARIETY*.—1, M. M. Cashmore. 2, M. Kew (Black *Hamburgh*). 3, J. Morley, Sysonby (Crève-Cœurs). *c*, De L. Gerard, Garendon Park (Silkies). *BANTAMS*.—*Game*.—1, J. T. Hincks. 2, M. Stokes, Hosc. 3, T. Whitaker, Melton Mowbray. *Any other variety*.—1, M. M. Cashmore. 2, J. T. Hincks. 3, T. Thurbury. 1 and 3, M. Kew. 2, N. Whitechurch. *GEES*.—1, M. Kew. 2 and 3, N. Whitechurch. *DUCKS*.—*Aylesbury*.—1, M. M. Cashmore. 2 and *hc*, R. & H. Gill, Holwell. 3, E. Snell, Barrowden. *Rouen*.—1 and 2, J. Wright. 3, Miss E. H. Wingfield, Market Overton. *ANY VARIETY*.—*Cockerel and Pullet*.—1 and 2, Miss E. H. Wingfield. 3, M. M. Cashmore. *c*, J. T. Hincks. *Ducklings*.—1, J. Wright. 2, M. M. Cashmore. 3, R. & H. Gill.

PIGEONS.

CARRIERS.—*Pair*.—1, Cnp, and 2, E. Walker, Leicester. *hc*, J. T. Hincks; M. M. Cashmore (2); S. Kestin, Twyford. *TRUMPETERS*.—*Pair*.—1 and 2, M. M. Cashmore. *hc*, J. T. Hincks. *c*, W. Haseldine; J. Kemp, Melton Mowbray. *FANTAILS*.—*Pair*.—1, A. Staunage, Marefield. 2, W. Gamble, Thorpe Satchville. *hc*, W. Latham, Melton Mowbray. *c*, Masters J. E. & A. Wakerley, Melton Mowbray; M. M. Cashmore. *POUTERS*.—*Pair*.—1 and 2, M. M. Cashmore. *hc*, A. Fetch, Melton Mowbray; W. Haseldine; R. Widdowson, Melton Mowbray. *JACOBIANS*.—*Pair*.—1, Master A. Ridge, Melton Mowbray. 2, M. M. Cashmore. *c*, M. M. Cashmore; W. Gamble. *TRUMPETERS*.—*Pair*.—1 and 2, W. Gamble. *ARCHANGELS*.—*Pair*.—1, A. Hardstaffe, Melton Mowbray. 2, J. Andrew, Melton Mowbray. *hc*, W. Latham; Master H. F. Hinde, Little Darby. *c*, W. Haseldine. *ANY OTHER VARIETY*.—*Pair*.—1, Master E. Ridge, Melton Mowbray (Barbs). 2, M. M. Cashmore. *hc*, J. H. Inchley, Mount Sorrel (Frillbacks). *hc*, J. T. Hincks (Magpies); J. Andrew, Melton Mowbray (Nuns); M. M. Cashmore; J. Kemp, Melton Mowbray (Antwipers and Horsemen); J. Inchley (Frillbacks and Swallows).

RABBITS.

GREATEST LENGTH OF EAR.—1, W. Canner, Leicester. 2, W. Haseldine. *HEAVIEST WEIGHT*.—1, W. Glover, Scalford. 2, W. Haseldine. *hc*, W. Glover; R. Robinson, Melton Mowbray. *ANY VARIETY*.—1, J. T. Hincks (Silver-Grey). 2, M. Kew (Angora). *hc*, W. Canner (Silver-Grey); A. Fetch, Melton Mowbray; W. Hinman, Melton Mowbray; J. Dickinson, Melton Mowbray; Masters A. J. & N. Payne; W. J. Priestman, Melton Mowbray; T. Bates, Melton Mowbray (2); M. Kew (Angora). *c*, J. H. Reehley (Patagonian). *YOUNG*.—1, E. Rance, Kirby Bellara. 2, J. P. Hewitt, Great Dalby. *hc*, J. T. Hincks. 2, T. Bates (2); W. Haseldine; W. Moore, Melton Mowbray. *c*, M. M. Hinman, Melton Mowbray; M. Kew.

The prizes were awarded by Mr. Edward Hewitt, of Sparkbrook, near Birmingham.

HORNINGLOW POULTRY SHOW.

THE third annual Exhibition was held at Horninglow, Burton-on-Trent, on the 8th inst. The following are the awards of the Judge, Mr. R. Teebay:—

DORKINGS.—1, J. White, Warlaby, Northallerton. 2, S. W. Hallam, Whitwick. 3, J. Watta, King's Heath, Birmingham. *hc*, H. Feast, Swans. *COCHIN-CHINA*.—1, B. S. Woodgate, Penbury, Tunbridge Wells. 2, H. Tomlinson, Birmingham. 3, M. M. Cashmore, Sheepshed, Loughborough. *hc*, H. Yardley, Birmingham; W. J. Cooper, Burton-on-Trent; H. Feast; E. J. Draper, Burton-on-Trent. *c*, E. Winwood. *BRAHMAS*.—*Dark*.—1, J. F. Smith, Sheffield. 2, H. Feast. 3, J. Watts. *hc*, J. Holmes, Whitecoats, Chesterfield. *c*, C. Hall, Swadincote; G. M. Cooper, Burton. *Disqualified*, W. Whiteley, Sheffield. *Light*.—1, W. Whiteley. 2, E. Kendrick, jun., Lichfield. 3, A. O. Worthington, Burton-on-Trent. *SPANISH*.—*Black*.—1, J. Gashbrook, Burton. 2, S. W. Hallam, Whitwick. 3, H. Feast. *GAME*.—*Black or Brown Red*.—1, R. Ashley, Nantwich. 2, E. Bell, Burton. 3, E. Clavey, Burton. *hc*, T. Haycock, Burton-on-Trent. *c*, H. Feast; Duke of Sutherland, Stoke-on-Trent; E. Winwood. *Any other variety*.—1, E. Winwood. 2, R. Ashley. 3, Duke of Sutherland. *hc* and *c*, E. Bell, Burton-on-Trent. *HAMBURGH*.—*Golden or Silver-spangled*.—1, J. Robinson, Lindley, Olley. 2, J. Ward, Ashby-de-la-Zouch. 3, H. P. Bayley, Lushbury, Wolverhampton. *hc*, Duke of Sutherland; J. Robinson, Lindley, Olley. *c*, S. W. Hallam, Whitwick. *Golden or Silver-pencilled*.—1, Duke of Sutherland. 2, J. Robinson. 3, W. Speakman, Nantwich. *hc*, C. Hall; J. Ward. *BANTAMS*.—*Game*.—1, W. Baskerville, Manchester. 2, Duke of Sutherland. 3, J. Mayo. *hc*, W. Baskerville; A. Ashley, Worcester. *Any variety except Game*.—1, E. S. S. Woodgate. 2, R. H. Ashton, Mottam, Manchester. 3, J. Mayo. *hc*, F. Holbrook, Derby; J. Watts; S. W. Hallam, Whitwick. *c*, H. Yardley; W. Cooper, Eacup. *ANY OTHER VARIETY*.—1, H. Feast. 2, A. Sinclair, Burton. 3, M. M. Cashmore. *hc*, C. Hall. *LOCAL CLASS*.—*Cross-bred Fowls*.—1, J. C. Lane, Burton-on-Trent. 2, H. Marshall, Burton-on-Trent. 3, T. C. Viney, Burton-on-Trent.

CROOK POULTRY SHOW.

THIS was held on the 5th inst., when the following awards were made:—

TURKEYS.—*White*.—1, W. Canney, Bishop Auckland. 2, W. Love, Redgate, Wolsingham. *hc*, Miss Crisp, Yarn. *c*, G. Love, Malton. *Any other variety*.—1, W. Canney. 2, W. Love. *hc*, A. M. Palmer, Bishop Auckland. *GEES*.—1, Miss Crisp. 2, W. Love. *hc*, A. M. Palmer, Bishop Auckland. *DUCKS*.—*Aylesbury*.—1, W. Canney. 2, O. A. Young, Driffield. *Any other breed*.—1, D. Shaysy, Brancepeth. 2, W. Canney. *hc*, O. A. Young. *Ducklings*.—1, R. Charlton. 2, J. Enstie. *hc*, W. Canney. *GAME*.—*Black-breasted or other Reds*.—1 and 2, T. Robson, Bishop Auckland. *hc*, W. Youngusband, Darlington; G. Holmes & Purdon, Great Driffield.

Any other variety.—1, J. Wilkinson, Tow Law. 2, Pickering & Duggleby, Driffield. *he*, G. Holmes & Pardon. *Undubbed*.—1, J. Gibson, Stanhope. 2, A. M. Palmer.

SPANISH.—1, W. Jobling, East Bridge End, Frosterley. 2, G. Morson, Beechburn. *he*, W. Robson, Crook.

DORKINGS.—*White*.—1, G. Love. 2, J. T. Proud, Binchester, Bishop Auckland. Any other variety.—1, C. Widdas, Darlington. 2, J. T. Proud.

BRAMA POOTRAS.—1, F. E. Gibson, Middleton-in-Teesdale. 2, W. J. Frank, Egglecliffe Farm.

HAMBURGH.—*Golden-pencilled*.—1, J. Forster, Tow Law. 2, G. Holmes & Pardon. *he*, J. Jackson, Tow Law; A. Harbott, Bishop Auckland. *Silver-pencilled*.—1, G. Holmes & Pardon. 2, J. Jackson. *he*, W. Simpson, Pye Close; W. Jopling.

HAMBURGH.—*Golden-spangled*.—1, R. Smithwaite, Bieldershaw. 2, J. Forster. *he*, J. Jackson; R. Keenleyside, Aycliffe. *Silver-spangled*.—1, Pickering and Duggleby. 2, G. Holmes & Pardon. *he*, J. Gibson.

BANTAMS.—*Game*.—*Black or Brown Reds*.—1 and 2, W. Grey, Tow Law. *he*, W. Updady, Tow Law. *c*, O. A. Young. Any other variety.—1, G. Holmes & Pardon. 2, W. Grey.

COCHIN-CHINAS.—1 and 2, G. H. Procter, Durham. *c*, G. Holmes & Pardon.

POLANDS.—1 and 2, J. T. Proud. *he*, W. D. Maddison, Sunniside.

GAME.—*Chickens*.—1, F. E. Gibson. 2, F. Horne, Tow Law. *he*, B. Ellison; J. Gibson.

SPANISH.—*Chickens*.—1, Pickering & Duggleby. 2, J. Ridley, Bridge End, Frosterley.

DORKINGS.—*Chickens*.—1 and 2, C. Widdas.

BRAMA POOTRAS.—*Chickens*.—1, G. Mason, Shildon Lodge Colliery. 2, O. A. Young.

HAMBURGH.—*Golden-pencilled*.—*Chickens*.—1, R. Keenleyside. 2, Waller and Wrightson, Stokesley. *he*, W. D. Mathison; J. Jackson. *Silver-pencilled*.

—*Chickens*.—1, R. Keenleyside. 2, W. Jopling. *c*, O. A. Young. *Silver-spangled*.

—1, R. Keenleyside. 2 and *he*, T. Ayre, West Auckland.

BANTAMS.—*Game*.—*Black or Brown Reds*.—*Chickens*.—1, W. Canney. 2, W. Grey. Any other variety.—*Chickens*.—1, W. Grey. 2, T. Ayre.

COCHIN-CHINAS.—*Chickens*.—1 and 2, G. H. Procter.

POLANDS.—*Chickens*.—1, W. D. Maddison. 2, J. T. Proud.

GOSLINGS.—1, H. Kander, Wolsingham Park. 2, W. Canney. 3, H. Forrest, Durham.

BARNDOOR.—*Cross-bred*.—1, Mrs. Sanderson, Wolsingham. 2, W. Fally, Crancepeth Colliery.

SELLING CLASS.—1, W. Hall, South Church. 2, C. Widdas.

PIGEONS.

CARRIERS.—1 and 2, J. Robinson, Sunniside.

POUTERS.—1, A. Tate, Tow Law. 2, J. Darque.

TUMBLERS.—1, J. Darque. 2, S. & W. Coulson, Redgate, Wolsingham.

TRUMPETERS.—1, R. J. Smith, Yarm. 2, J. Darque.

FANTAILS.—1 and 2, A. Tate, Tow Law.

JACOBINS.—1 and 2, J. Young, Bishop Auckland.

ANY OTHER VARIETY.—1 and 2, J. Young.

JUDGE.—Mr. W. Bearpark, Ainderby Steeple, Northallerton.

BRIDGEND POULTRY SHOW.

THE Show of the Glamorganshire Agricultural Society, which is one of the oldest in the kingdom, was held at Bridgend on the 5th and 6th inst. In poultry the Society had not previously ventured so far as to provide pens for the exhibition of the specimens sent, but this year the management fell into the hands of Mr. Leyshon, and on a proper representation of the advisability of providing pens being made, this spirited gentleman at once consented to arrange the matter, and the result was that Mr. Billett's pens and a large marquee were secured, while the whole was arranged with great skill, and everything carried out with the utmost precision.

The *Dorkings* were good, but not well matched in point of colour, but in form and size the three pens of winners were good. The chickens were fair. Light *Brahmas* in the adult class were unusually good, but the chickens were not very forward, though the winners showed excellent points. Adult Dark *Brahmas* were miserable, but there were some good chickens, especially the first-prize cockerel and second-prize pullet. *Game* were mostly shaky in feather, as may be expected at this time of the year. The first in Reds was a stylish Brown Red, the second a good Black Red, but he had lost one spur. Chickens were very young—too young, in fact, for work, but the first in Reds (a pen of Brown Reds) were very good and stylish, the second, Black Reds, being only poor. Adult *Spanish* were not good, but the first-prize pen of young were tolerably good. *Cochins* were the class of the Show, the winners *Buffs*. The first two, though not the largest, were in symmetry and colour far ahead. In chickens a well-grown pair of Whites were first; Partridge, needing little but age, second; very good Blacks, as the Blacks go, third. In Golden *Hamburghs* the first were very well spangled, the second *Pencilled*, both being adult birds. In Silvers, first came a well-known champion *Pencilled* cock and a good pullet, while the second pen contained a Spangled cockerel of rare excellence, but the pullet was rather light in marking. Of *Polands* the first were very good Silvers, second White-crested Blacks, and third Goldens. There was a class for *Black Hamburghs*, and in this a very good pair of adults were first, though out of feather. Some of the young birds were wrong in comb. *French* were a very good class; a pen of *Crève-Cœurs* in fine bloom first, *Crève-Cœurs* being also second, and *Houdans* third. Four other pens were noticed.

In *Game Bantams* the first were good old Piles; second and third Black Reds, very good in style, but the second-prize cock was a little rusty on the bars; the third-prize pullet only low in condition. The winning *Bantams* of Any other variety were all Black, and very good, a pair of White-booted being highly commended. In Any other distinct breed the first and second were nice *Siltsans*, and the third *White Dorkings*.

Aylesbury Ducks were none of the largest, but in point of

quality not easily surpassed. The Rouens, on the contrary, were large and mostly good in points. The first and third prizes went to adults, and the second to young birds of great promise. In the next class of Ducks the first were *White Decoy*, and second *Muscovy*. There was nothing striking in *Geese* and *Turkeys*; in fact, not anything approaching what we find at the winter shows of this locality.

There were two Selling classes, of which one was for fowls and the other for Ducks, but from these we could not see very much desire to part with much good poultry.

DORKINGS.—1, A. Haine, Tredegarville, Cardiff. 2, H. Edwards, Tidenham, Cheltenham. 3, R. Leyshon, Bridgend. *he*, W. Bevan, Swansea; J. C. Barry, Neath. *c*, R. Leyshon. *Chickens*.—1, H. Feast, Swansea. 2, A. Haine. *he*, W. Bevan.

BRAMA POOTRAS.—*Light*.—1, T. Dean, Marden, Hereford. 2, J. Bloodworth, Cheltenham. *he*, H. Dean, Cardiff; W. Harris, Pen-y-vai, Bridgend; W. Jenkins, Angelton, Bridgend. *Chickens*.—1, T. A. Dean. 2, W. Harris. *he*, E. Lawrence, Ewenny, Bridgend (2).

BRAMA POOTRAS.—*Dark*.—1, W. Bevan. 2, G. F. Stacey, Merthyr Tydfil. *c*, J. H. Price, Nilton Court, Bridgend; H. Feast. *Chickens*.—1, H. Feast. 2, Bridgewater & Yoxall, West Bromwich. *he*, T. A. Dean; Bridgewater and Yoxall.

GAME.—1, H. E. Martin, Southport, Fakenham. 2, J. Mason, Worcester. *he*, W. L. Blake, Llandaff; E. Winwood, Worcester. *he*, J. P. James, Sketty, Swansea. *Chickens*.—1, G. Bentley, Eastcheap, London. 2, E. Winwood. *he*, S. Barford, Hafod, Swansea; J. Andrews, Worcester; D. W. J. Thomas, Brecon.

SPANISH.—1, H. Feast. 2, E. Winwood. *Chickens*.—1, G. Bentley. 2, H. Feast.

COCHIN-CHINAS.—1, C. Bloodworth, Cheltenham. 2, J. Bloodworth. 3, E. Winwood. *he*, J. Williams, Pyle, Bridgend; H. Feast (2). *c*, Mrs. Thomson, Tregeos, Bridgend. *Chickens*.—1, J. Bloodworth. 2, R. Jones, Neath. 3 and *c*, H. Feast.

HAMBURGH.—*Golden-pencilled and Spangled*.—1, J. Long, Bromley. 2, H. Feast. *he*, C. Bloodworth; Mrs. G. M. Rolls, Monmouth; P. Hanson, Stonehouse, Gloucester (2). *c*, J. E. Davies, Neath. *Silver-pencilled and Spangled*. 1, J. Long. 2 and *c*, J. Carr, Swansea. *he*, H. Feast.

POLANDS.—1, R. Jones, Neath. 2 and *c*, H. Feast. *c*, C. Bloodworth.

HAMBURGH.—*Black*.—1, H. Morris, Angelton, Bridgend. 2, H. Feast. *he* and *c*, J. Carr.

FRENCH.—1, H. Feast. 2, W. Harris. 3, G. Hibbert, Godley, Manchester. *he*, W. Harris; Mrs. Llewellyn, Bridgend (2); H. Feast.

BANTAMS.—*Game*.—1, J. Mayo, Gloucester. 2, E. Payne, Cardiff. 3, H. Feast. *he*, Wingfield, Ledbury, Worcester. Any other variety.—1, K. H. Ashton, Mottram, Manchester. 2, H. Feast. 3, J. Mayo. *he*, H. Feast.

ANY OTHER VARIETY.—1 and 2, and 3, H. Feast. 4, J. P. James. *he*, Mrs. Llewellyn.

DUCKS.—*Aylesbury*.—1, Miss Knight, Bridgend. 2, H. Feast. 3, H. K. Jordan, Bridgend. *he*, Mrs. Llewellyn. *Rouen*.—1, Mrs. P. Tabervill, Bridgend. 2, J. F. Davis, Neath. 3 and *c*, J. Saunders, Cornstown, Bridgend. *he*, —Donne, Monkton, Bridgend. Any other variety.—1, Mrs. G. M. Rolls. 2, H. Feast. *he*, Mrs. Llewellyn. *c*, J. G. H. Morris; J. Saunders.

GESE.—1, W. James, Llynwmmwr, Sketty, Swansea. 2, W. S. Powell, Tregeos. *he*, W. Donne.

TURKEYS.—1, A. Watts, Colly, Bridgend. 2, W. Donne.

SELLING CLASS FOR FOWLS.—*Cock and Two Hens*.—1, J. Saunders. 2, Mrs. G. M. Rolls. 3, W. Harris. 4, E. Lawrence, Ewenny. *he*, C. Bloodworth; L. Jones, Coychurch, Bridgend. *he*, J. F. Davis; J. Carr; Miss J. E. Nicholas, Newport. *c*, Mrs. Thomson, Tregeos, Bridgend; J. Saunders; J. Dyer, Bridgend.

SELLING CLASS FOR DUCKS.—*Drake and Two Ducks*.—1, Miss Knight. 2, T. Arthur, Ewenny. 3 and 4, J. F. Davies. *c*, Mrs. Thomson; J. G. Morris.

The Judge was Mr. E. Hutton, Pudsey.

PRESTON POULTRY SHOW.

THIS took place on the 7th inst., in connection with the Agricultural Society's Show.

GAME.—*Cock*.—1, 2, and 3, C. W. Brierley, Middleton.

DORKING.—*Cock*.—1, J. Walker, Rochdale. 2, S. H. Stott, Preston. 3, H. Feast, Swansea.

SPANISH.—*Cock*.—1, 2, and 3, J. Leeming, Broughton.

BANTAM.—*Game*.—*Cock*.—1, W. F. Adie, Preston. 2, G. Anderton, Accrington. 3, G. Hall, Kendal.

DORKING.—1, J. Walker. 2, J. Robinson. 3, D. Parsons, Cauden.

FRENCH.—1, E. Harrison, Cottam. 2, H. Walton, Rawtenstall. 3, W. H. Crabtree, Levenshulme. *he*, H. Feast. *c*, J. Robinson.

BRAMA POOTRAS.—1 and 2, T. F. Ansell, St. Helens. 3, W. H. Crabtree. *he*, W. H. Crabtree; J. Watts, Birmingham.

SPANISH.—1, 2, and 3, J. Leeming.

GAME.—1 and 2, C. W. Brierley. 3, J. Leeming.

COCHIN-CHINA.—1, T. Asplen, Church. 2, W. H. Crabtree. 3, H. Tomlinson, Birmingham. *he*, W. Whitworth, Longsight.

HAMBURGH.—*Golden-pencilled*.—1, J. & G. Duckworth, Church. 2, J. Robinson. 3, J. Long, Bromley. *he*, W. Speakman, Nantwich. *he*, H. Feast.

HAMBURGH.—*Silver-pencilled*.—1, J. Long. 2, J. Robinson. 3, H. Feast.

HAMBURGH.—*Golden-spangled*.—1 and 2, G. & J. Duckworth. 3, J. Robinson.

HAMBURGH.—*Silver-spangled*.—1, J. Robinson. 2 and 3, J. Long.

BANTAMS.—*Game*.—1, W. F. Adie. 2 and *he*, G. Hall. 3, J. Camsell, Preston.

BANTAMS.—*Except Game*.—1, J. Leeming. *he*, J. Watts, Birmingham. *c*, J. Walker.

GESE.—1 and 2, J. Walker. 3, Capt. Anyon, Whittle. *he*, F. E. Rawson, Halifax. *c*, S. H. Stott; J. P. Rogers. 1, J. Walker. 2, W. Penny. 3, S. H. Stott. *he*, S. H. Stott; F. E. Rawson; E. Harrison.

DUCKINGS.—1 and 2, J. Walker. 3, T. Wakefield, Newton-le-Willows. *he*, S. H. Stott.

DUCKS.—1 and 2, J. Walker. 3, T. Wilkins, Longton. *he*, Rev. —Perry, Ashton. *Rouen*.—1, S. H. Stott. 2, J. Walker. 3, T. Wakefield. *he*, S. H. Stott; T. Wakefield; L. Utley.

ORNAVENTAL WATERFOWL.—1 and 2, H. B. Smith. *he*, H. B. Smith; J. Walker.

TURKEY.—1, J. Walker. 2, J. Gardner, Preston.

PIGEONS.

CARRIERS.—1, J. Hawley, Bradford. 2, W. Sefton, Blackburn. *he*, J. Stanley, Blackburn; J. Gardner.

TUMBLERS.—1, J. Gardner. 2, E. Horner, Leeds. *he*, J. Gardner (2); J. Hawley. *c*, E. Horner; J. Gardner.

BAVES.—1, J. Hawley. 2, T. Pincock. *he*, J. Gardner.

OWLS.—1 and 2, J. Gardner. 3, W. Penny. *he*, J. Gardner; A. Warburton, Haslogden. *c*, A. Warburton; R. M. Viny, Kilderton.

POUTERS OR CROPPERS.—1 and *he*, J. Gardner. 2, E. Horner. *c*, E. Horner; J. Stanley.

FANTAILS.—1, E. Horner. 2, J. Richmond, Oswaldtwistle. *he*, J. B. Bowdon, Blackburn.

ROSTS.—1 and 2, H. Yardley, Birmingham.

TURBITS.—1 and c, S. Lawson, Preston. 2, E. Horner. *hc*, J. B. Bowdon; J. Gardner; J. Hawley.
DRAGONS.—1, H. Yardley. 2, F. Graham, Birkenhead. *hc*, F. Graham; J. Gardner; E. Horner; W. Setton. c, W. Smith, Walton; J. Watts; H. Livesey, Fulwood.
TRUMPETERS.—1 and 2, J. Gardner. *hc*, J. Gardner; E. Horner.
JACOBIANS.—1, E. Horner. 2, J. Gardner. *hc*, J. Gardner; J. Hawley; J. Richmond.
NUNS.—1, E. Horner. 2, J. Hawley.
ANTWERPS.—1, J. Stanley. 2, J. Gardner. *hc*, J. Gardner; J. Hawley.
ANY OTHER VARIETY.—1 and 2, J. Hawley. *hc*, E. Horner.

RABBITS.—1 and *hc*, J. Irving, Blackburn. 2, M. Marsland, Goole.

CATS.—1, E. Baxter, London. 2, E. Horner. 3, J. Atkins, Preston. *hc*, H. B. Smith, Brighton.

JUDGES.—*Poultry*: Mr. R. Teebay. *Pigeons*: Mr. W. B. Tegetmeier.

DRIFFIELD POULTRY SHOW.

THIS, the second Show of the season, was held at Driffield on July 31st, and as regards weather and attendance of visitors was all that could be desired. The entries of poultry (219), were better than previously, the only drawback being that in place of uniform pens such as Turner's some very ugly skeps were used, which took up much room and destroyed the effect of the whole. We would strongly recommend the Committee to abandon these for others of a more comfortable kind.

Of *Dorkings* there were seven entries, but these were only moderate in quality; and of *Spanish* five, the winners being good. Of *Red Game* there were seven entries, Messrs. Thornton and Adams dividing the spoil with good birds. In the other variety of *Game* Mr. Sale's *Duckwings* were to the front, winning easily; second also *Duckwings*, but the latter showed the effects of overwork. *Game* chickens had ten entries, all of which were worthy of prizes; the first and second went to Brown Reda, Pen 55, *Duckwings*, being also greatly admired. *Cochins* were nothing grand if we except the first-prize *Buffs*; the chickens also being indifferent. *Hamburghs* were very poor, doubtless owing to the classes being mixed, and the prizes scarcely being worth contending for. The *Farmyard* cross is a great feature of this county, and many fine useful birds were shown. In *Game Bantams* there was nothing of note; but the *Black* and *Japanese* in the next class were pretty good.

Years ago this district was noted for its large *Geese*, and unlike some other parts it still keeps up its prestige in that respect. *Turkeys* and *Ducks* were of moderately good quality.

PIGEONS were shown in Turner's pens under a tent, and these formed a great contrast with the display of poultry; but we certainly expected to have seen more entries for 20s. prizes. Mr. Horner's seventeen entries did not come to hand, and the pens were empty, which we regret. *Carriers* were poor, except the first; *Pouters* the same. In *Jacobins* the first and second were good; the first *Fantails* fair birds. The *Almonds* in the next class were grand in head, beak, and eye; the hen especially a real gem, but the cock getting too dark; second *Red Agates*, also with wonderful head, beak, and eyes. *Barbs* were poor; but *Nuns* good, as may be expected here. *Turbits* four pens, and all good. The *Selling* class contained some good birds; first were *White Dragons*; and second *White Pouters*, which were soon claimed. Two extra prizes were recommended by the Judge, and allowed.

RABBITS were shown in pairs, a system we cannot sufficiently condemn, and we think this will not occur here again; there was, however, only one class in which a pair of good *Black* and *White* Lops were first; second also *Fawn* Lops; the third prize going to *Himalayans*. Had the *Rabbits* been shown singly the entries would have been much larger, as it is very difficult to get a pair well-matched and good in all points, especially in the *Lop*-eared variety.

DORKINGS.—1, H. Smith, Norton, Malton. 2, R. W. Richardson, Beverley. *hc*, H. Feast, Swansea. *Chickens*.—1, R. W. Richardson. 2, G. Pounder, Kirby-moorside. *hc*, R. Stabler, Driffield; D. White, Driffield. *Cock*.—1, J. Ness, Driffield. *hc*, D. White; W. H. Young, Driffield.

SPANISH.—1 and 2, J. Duggeby, Driffield. *hc*, H. Feast. c, H. Smith. *Cock*.—1, J. Duggeby.

GAME.—*Black-breasted* and *other Reds*.—1, J. W. Thornton, Bradford. 2, W. Adams, Ipswich. *hc*, W. Adams. *Cock*.—1, Mrs. J. S. Jordan, Elmswell, Driffield.

GAME.—*Any other variety*.—1, F. Sales. 2, J. A. Staveley, Tibthorpe Manor. *hc*, J. Duggeby; J. A. Staveley. *Cock*.—1, J. A. Staveley. *hc*, J. Duggeby.

GAME.—*Any variety*.—*Chickens*.—1 and 2, W. Adams. *hc*, T. Dyson, Halifax; J. A. Staveley. c, T. W. Lister, Stokesley.

COCHIN-CHINA.—1, H. Gibson, Driffield. 2, T. Holmes & G. Purdon, Driffield. *hc*, W. Horner, Norton, Malton; A. Canty, Barton-on-Humber; H. Feast, *Chickens*.—1, D. & J. Heston, Whitley. *hc*, W. Santon, Driffield. c, S. Richardson, Driffield.

HAMBURGH.—*Golden and Silver-spangled*.—1 and 2, J. Duggeby. *Cock*.—1, J. Duggeby.

HAMBURGH.—*Golden and Silver-pencilled*.—1, H. Feast. 2, H. Holmes & G. Purdon. *Cock*.—1, G. Pounder.

HAMBURGH.—*Any variety*.—1, H. Adamson, Eastgate, Driffield. 2, H. Smith. *hc*, Mrs. R. Stabler, Driffield; R. Newby, Welburn, York; Mrs. Scott, Eastgate, Driffield.

FARMYARD CROSS.—1, G. Pomder. 2, J. Ireland, Frodingham, Driffield. *Cock*.—1, W. H. Young. *hc*, G. Robinson, Frodingham; J. Ireland; — Etherington, Sigglethorpe; R. Loft, Beverley.

BANTAMS.—*Game*.—1, C. Holmes & G. Purdon. 2, W. Adams. *Cock*.—1, C. Holmes & G. Purdon. 2, J. Stabler.

BANTAMS.—*Any other variety*.—1, W. Ransom, jun., Driffield. 2, A. Brooks-bank, Middleton. *hc*, J. W. Baron, Driffield; H. Feast; J. Duggeby. *Cock*.—1, J. Duggeby.

ANY OTHER VARIETY.—1 and 3, H. Feast. 2, R. Loft. *hc*, W. Horner; H. Feast. *Cock*.—1, R. Loft. 2, O. A. Young. *hc*, W. Horner; G. Blakey, Driffield; Mrs. Adamson, Eastgate.

SELLING CLASS.—*Cock*.—2, J. Walker, Barton-on-Humber (Dorkings). 3, G. Pounder (Black Red Game). *hc*, J. Blanchard, jun., Driffield; Mrs. Smithson, Driffield. *Heads*.—1, Mrs. G. H. Pickering, Driffield. 2, R. W. Richardson. 3, R. Loft.

GEES.—1, O. A. Young. 2, T. Balderson, Beilby, York. *hc*, T. Croft, Pluckham, Fridaythorpe; T. Stabler. *Young*.—1, Mrs. M. Hought, Driffield. *hc*, E. Stabler, Driffield; O. A. Young.

TURKEYS.—1, Mrs. Jordan, Eastburn, Driffield. 2, Mrs. J. S. Jordan, Elmswell, Driffield. *Young*.—1, J. Lamplough, Skipses, Hull. *hc*, Miss L. Robson, Lowthorpe, Hull.

DUCKS.—*Aylesbury*.—1, W. Piercey, Driffield. 2, Mrs. J. S. Jordan. *Ducklings*.—1, O. A. Young. *hc*, W. Piercey.

DUCKS.—*Rouen*.—1, R. Crowe, Bridlington. 2, O. A. Young. *Ducklings*.—1, Mrs. Jordan. *hc*, G. Pounder.

DUCKS.—*Any other variety*.—1, R. W. Richardson. 2, O. A. Young. *Ducklings*.—1, O. A. Young. *hc*, R. W. Richardson.

EXTRA STOCK.—1, W. H. Young. 2, Miss Robinson, Swaythorpe, Bridlington. 3, H. Naylor, Driffield. *hc*, O. A. Young.

PIGEONS.

CARRIERS.—1, J. Aconley, Pickering. 2, F. Holgson, Driffield. 3, W. G. Purdon, Driffield.

CROPPERS.—1, Mrs. J. Blanchard, Driffield. 2, A. Spencer, Driffield. 3, B. Hudson, Driffield.

JACOBIANS.—1, J. Blanchard, sen., Driffield. 2, J. Aconley. 3, R. W. Richardson, Beverley.

FANTAILS.—1, R. W. Richardson. 2, T. S. Stephenson, Newbegin, Beverley. 3, Miss S. Clark, Carnaby, Hull.

TUMBLERS.—1 and 2, W. Adams, Ipswich.

BARBS.—1, R. W. Richardson. 2, J. Aconley. 3, C. Wroth, Hull.

NUNS.—1, Mrs. Blanchard. 2, J. W. Stabler. 3, A. Leason, Driffield.

TURBITS.—1, R. W. Richardson. 2, J. Blanchard, sen. 3, D. Maynard, Driffield. *hc*, J. Aconley.

ANY OTHER VARIETY.—1, R. W. Richardson. 2, J. D. Maynard. 3, A. Canty, *hc*, W. Leason.

SELLING CLASS.—1, R. J. Maynard. 2, and Extra, J. Blanchard, sen. 3, R. G. Sanders, Leven, Beverley. Extra, Mrs. Blakey, Driffield. *hc*, J. Aconley; J. Blanchard, sen.; G. Desner, Driffield; A. Spencer (2); L. W. Richardson.

RABBITS.—*Any breed*.—1, J. Hume, York. 2, W. Bradley, Hesale Junction, Hull. 3, W. G. Purdon, Driffield. *hc*, H. M. Eames, Driffield; A. Canty, Barton-on-Humber.

Mr. Cannan, Adolphna Works, Bradford, was the Judge.

ORMSKIRK AND SOUTHPORT POULTRY SHOW.

THIS was held on the 4th and 5th inst. at Southport. There were 196 entries of poultry and 161 of Pigeons. The following is the prize list:—

DORKINGS.—*Coloured*.—1, J. Walker. 2, J. Robinson, Garstang. *Chickens*.—1, T. Briden, Leeds. 2, S. Eriery, Rochdale.

DORKINGS.—*White*.—1 and 2, J. Robinson. *Chickens*.—1, J. Robinson. 2, E. Williams, Barrow.

COCHIN-CHINA.—*Buff*.—1, C. Sedgwick, Keighley. 2, W. H. Crabtree, Levens-ingham. *Chickens*.—1, C. Sedgwick. 2, W. Taylor, Manchester.

COCHIN-CHINA.—*Partridge or grouse*.—1, T. Stretch, Ormskirk. 2, W. H. Crabtree. *Chickens*.—1, C. Sedgwick. 2, W. A. Taylor.

BRAHMA POOTRA.—*Dark*.—1, T. F. Ansell, St. Helens. 2, W. H. Crabtree. *Chickens*.—1 and 2, Cup, T. F. Ansell. 2, A. Legg, Lea Green.

BRAHMA POOTRA.—*Light*.—1, W. H. Crabtree. 2, J. Mitchell, Moseley. *Chickens*.—1, R. E. Horstall, Grassendale. 2, T. A. Deane, Hereford.

HAMBURGH.—*Gold-spangled*.—1, G. & J. Duckworth. 2, H. Beldon. *Silver-spangled*.—1, J. Robinson. 2, J. Long.

HAMBURGH.—*Gold-pencilled*.—1, H. Beldon. 2, G. & J. Duckworth, Accrington. *Silver-pencilled*.—1, J. Long. 2, H. Beldon.

GAME.—1 and 2, Cup, C. W. Brierley, Middleton. 2, J. Bell, Southport. *Chickens*.—1 and 2, T. P. Lyon, Liverpool.

BANTAMS.—*Game*.—1, R. F. Adie, Preston. 2, W. F. Entwisle. *Any other variety*.—1, J. Lealand. 2, J. W. Morris, Rochdale.

ANY OTHER VARIETY.—1 and 2, H. Beldon.

EXTRA STOCK.—1, F. Young, jun.

GEES.—1 and 2, J. Walker, Rochdale. *Goslings*.—1, J. Walker. 2, A. Woods, Sefton.

TURKEYS.—1, J. Walker. 2, J. Brookall, Wigan.

DUCKS.—*Aylesbury*.—1, J. Walker. *Rouen*.—1, S. H. Stott, Preston. 2, P. Unsworth, Lawton.

PIGEONS.

POUTERS.—*Cock*.—1, J. Richmond, Oswaldtwistle. 2, E. C. Stretch, Ormskirk. 3, W. J. Warburton, Stalybridge. *Hen*.—1, H. Yardley, Birmingham. 2, E. C. Stretch. 3, Major Cryer, Southport.

CARRIERS.—*Cock*.—1, H. Yardley. 2, P. R. Spencer. 3, E. C. Stretch. *Hen*.—1, Major Cryer. 2, P. N. Spencer. 3, E. C. Stretch. *Young*.—1 and 2, A. Bilyeald, Nottingham. 3, Major Cryer.

BARBS.—1, T. W. Townsend, Bowdon. 2, H. Yardley. 3, T. H. Stretch.

DRAGONS.—*Blue or Silver*.—1 and 2, E. C. Stretch. 3, J. Gardner, Preston.

ANY OTHER COLOUR.—1, F. Graham. 2, W. H. Mitchell. 3, J. Gardner.

TUMBLERS.—*Short-faced*.—1, H. Yardley. 2, H. Vernon, Wavertree. 3, J. Gardner. *Long-faced*.—1, J. Watts. 2 and 3, A. & W. H. Silvester, Sheffield.

OWLS.—*Foreign*.—1, T. W. Townsend. 2, H. Yardley. 3, Major Cryer. *English*.—1 and 2, T. W. Townsend. 3, J. Watts.

JACOBIANS.—1 and 2, J. Richmond. 3, J. Gardner.

TURBITS.—1, A. & W. H. Silvester. 2, T. W. Townsend. 3, E. C. Stretch.

FANTAILS.—1, H. Yardley. 2, J. Richmond. 3, T. W. Townsend.

ANTWERPS.—*Short-faced*.—1, H. Yardley. 2, W. Gamon. 3, J. Gardner. *Long-faced*.—1, J. Gardner. 2, H. Chadwick, Croston. 3, T. H. Stretch.

ANY OTHER VARIETY.—1, H. Yardley. 2, A. & W. H. Silvester. 3, J. Gardner.

—(Preston Guardian.)

WHITWICK POULTRY SHOW.

THE fourth annual Show took place on the 4th inst. Good marquees were provided, and Turner's were used. The birds were well attended to; and the only thing we could take exception to was that the floors of the pens were covered with sawdust, a practice we cannot sufficiently condemn, for many valuable birds have been lost through swallowing portions of this indigestible rubbish. Unfortunately the fore part of the day was very wet, and this prevented to a considerable extent the influx of visitors.

Game stood first, and in *Reds* a very good cock with a poor hen was first, but the second-prize cock was badly squirrel-tailed, and all the others had some fatal defect. In the next class *Piles* were first, and *Duckwing* chickens second. *Dorkings* were poor except the winners, and *Spanish* not of the highest merit. *Cochins* were a good class, Mr. Tomlinson taking the lead with a grand pair of *Buffs* in fine bloom, and second were a pen of good *Partridge*, good *Buffs* being also very highly commended. Of *Brahmas* there were only two pens, the first very good in colour, the second large. *Hamburghs* were mixed classes, but the entries were pretty fair. The first prize for *Pencilled* went to a grand pen of adults; *Golden* were first, and an equally good pen of *Silvers* second, the latter showing the effects of their journey. Some other very good pens were also noticed. In *Spangled* the winners were both *Golden* and in fine feather, the first prize going to adults, and the second to a well-grown pen of chickens more like old birds than ought else even in marking. In the *Variety* class a fine pen of *Silver Polands* won, seconded by a pen of adult *Malays*; chickens of the latter kind being also very highly commended.

In *Bantams* the first were a very pretty pair of *Golden Sebright* chickens, and second fair *Blacks*.

There were several classes for local exhibitors only; and here we found some good birds, notably the first-prize pen of *Brown Red* chickens, which we have not seen surpassed this year; and in *Golden-spangled* were some birds falling little short of the quality of those shown in the open class.

Ducks were very good, the first prize going to *Aylesbury* and the second to *Ronen*.

PIGEONS had but six classes, and the competition was not keen. *Carriers* were mostly young and promising. In *Fantails* first were *Whites*, and second *Blues*. In *Tumblers* Mr. Yardley won with a nice pair of *Almonds*, and in *Antwerps* with good *Short-faced Duns*; a very good pair of medium-faced *Red Chequera* being second.

RABBITS were inferior, except the first-prize *Blue-and-white* *Lop* doe in the open, and the *Lop buck* and *Angora doe* in the local class.

CANARIES.—For these there was not sufficient inducement to secure a numerous exhibition, but the first in both classes were really fine specimens of the "hot" variety.

The awards appeared in last week's number.

BISHOP AUCKLAND POULTRY AND PIGEON SHOW.

THE annual Show at this place was held on the 11th inst., and as regards the number of entries was very successful, those of poultry amounting to no less than 328, while *Pigeons* and *Rabbits* amounted to sixty-eight and twenty-eight respectively. We append a list of the awards, but must defer remarks on the individual classes till next week.

DOEKINGS.—*Grey*.—1, C. Widdas, Beechburn Grange. 2, J. T. Proud, Dinchester. *hc*, T. P. Carver, Langthorpe, Boringbridge.

COCHIN-CHINA.—Medal and 2, G. H. Proctor, Durham. *vhc* and *hc*, W. Hall, Eldon Old Pitts, South Church. *c*, A. Balmer, Bishop Auckland.

BRABMA POOTRA.—1, R. Shield, Swalwell, Gateshead. 2, W. Bedlington, Whitby. *hc*, A. Balmer, Bishop Auckland.

SPANISH.—1, Furness & Siddle, Rawtenstall, Manchester. 2, Pallister and Hawkins, Topcliffe, Thirsk. *hc*, R. Addison, West Hartlepool; W. Jopling, Frosterley. *c*, J. Pickering & Douglasby, Driffield.

GAME.—*Black-breasted and other Reds*.—1, C. E. Morgan, 2, T. Robson, Bishop Auckland. *vhc*, D. Cheyne, Morpeth. *hc*, C. E. Morgan; T. McKenzie, Stanhope; J. Ferry, Morpeth. *Any other variety*.—1, J. Robson, Bishop Auckland. 2, J. Pickering & Douglasby. *hc*, J. F. Walton, Horncliffe, Rawtenstall, Manchester.

HAMBURGH.—*Golden-spangled*.—1, R. Keenleyside, Avchiff, Darlington. 2, T. Horne, Towlaw. *hc*, J. Stewart, Dudley Colliery; T. P. Carver. *c*, J. Foster, Towlaw. *Silverspangled*.—1, J. Pickering & Douglasby. 2, R. Moore, East Rainton, Fence Houses. *vhc*, G. Alderson, West Hartlepool.

HAMBURGH.—*Golden-pencilled*.—1, J. Forster. 2, Harburn, Bishop Auckland. 2, Wells & Sherwin, Ripon. *Silver-pencilled*.—1, J. Maddison, Bishop Auckland. 2, J. Jackson, Towlaw. *hc*, R. Moore; J. Ferry.

POLANDS.—1 and *vhc*, J. T. Proud, 2, W. Bearpark, Northallerton. *hc*, J. Ferry.

GAME BANTAMS.—*Black-breasted and other Reds*.—1, W. Gray, Towlaw. 2, E. Walton. *hc*, W. Gray; A. Balmer, Bishop Auckland. *c*, J. Ferry; R. Hookaby, Stamford. *Any other variety*.—1, E. Walton. 2, J. Foster. *hc*, W. Gray.

BANTAMS.—*Any variety except Game*.—1, J. Ferry. 2, Wells & Sherwin. *hc*, W. Canney, Bishop Auckland; Rev. G. Milner, Hamsterley; E. Walton. *c*, T. Allison, Bishop Auckland.

DUCKS.—*Rouen*.—1, W. Canney. 2, W. Simpson, Frosterley. *Aylesbury*.—1, T. P. Carver. 2, A. O. Young, Driffield. *hc*, W. Canney; A. Balmer, Bishop Auckland. *Any other variety*.—1, Rev. G. Milner. 2, T. P. Carver. *vhc*, Col. Cathcart, Spenthorpe. *hc*, W. Canney; A. O. Young.

TURKEYS.—1, T. P. Carver. 2, W. Canney. *hc*, Mrs. Sanderson. *GESE*.—1, A. Balmer. 2, A. O. Young. *hc*, J. T. Kenton; Miss Scurr, Willington; Mrs. Robson, Bishop Auckland.

ANY OTHER VARIETY.—1, E. Walton. 2, Rev. G. Milner. *hc*, J. T. Proud; T. P. Carver.

ANY VARIETY.—*Cock*.—1, E. Walton. 2, W. Hall. *hc*, J. Ferry; Col. Cathcart. *c*, Rev. G. Milner; A. Widdas, Wotton-le-Wear. 1, E. Walton. 2, R. Britton, South Otterington, Thirsk. *vhc*, J. T. Proud. *hc*, J. Pickering and Douglasby. *c*, G. B. Bell, Caldwell, Darlington; A. Harburn, Bishop Auckland.

CHICKENS.

DOEKINGS.—*Grey*.—1, T. P. Carver. 2, C. Widdas.

COCHIN-CHINA.—Medal, 1, and 2, R. H. Proctor, Durham. *c*, E. Paulson, Darlington; Wells & Sherwin; W. H. Frazer, Easingcliffe, Yarm.

BRABMA POOTRA.—1, W. J. Frank. 2, T. P. Carver. *hc*, G. Mason, Bishop Auckland; R. Shield, Swalwell, Gateshead. *c*, A. Balmer, Bishop Auckland.

SPANISH.—1, Pallister & Hawkins, Topcliffe, Thirsk. 2, J. Pickering and Douglasby. *hc*, Furness & Siddle, Rawtenstall, Manchester.

GAME.—*Black-breasted and other Reds*.—1, J. F. Walton. 2, T. Robson, Bishop Auckland. *hc*, R. Britton, South Otterington, Thirsk; T. McKenzie, Any other variety. 1, J. F. Walton. 2, Mrs. Ellis, Darlington. *hc*, T. Horne, Towlaw.

HAMBURGH.—*Golden-spangled*.—1 and 2, R. Keenleyside. *Silverspangled*.—1, R. Keenleyside. 2, J. Ferry, Cowpen, Morpeth. *hc*, T. Ayre, West Auckland.

HAMBURGH.—*Golden-pencilled*.—1, J. Russell, Wharby. 2, A. G. Mitchell, Bishop Auckland. *hc*, Waller and Wighston, West Green, Stokeley; R. Keenleyside; D. Cheyne, Morpeth. *Silver-pencilled*.—1, J. Foster. 2, W. Jopling. *hc*, R. Keenleyside.

POLANDS.—1, J. T. Proud.

GAME BANTAMS.—*Black-breasted and other Reds*.—1 and Medal, Wells and Sherwin. 2, W. Canney. *hc*, J. Ferry; A. Balmer; E. Walton.

BANTAMS.—*Any other variety*.—Medal and 1, E. Walton. 2, T. Ayre. *hc*, T. P. Carver. *Any variety except Game*.—1 and 2, T. P. Carver. *hc*, Wells and Sherwin. *c*, J. H. Carlwright, Willington.

TURKEYS.—*Young*.—1 and 2, J. T. Proud, Bishop Auckland. *hc*, C. E. Morgan, Bishop Auckland (2).

GOSLINGS.—1, H. Forrest, Durham. 2, J. T. Reuter, Ripon. *hc*, Mrs. Robson, Bishop Auckland.

DUCKINGS.—1, C. E. Morgan, Bishop Auckland. 2, G. B. Bell, Darlington. *vhc*, F. E. Gibson, Middleton-in-Leedsale; T. P. Carver, Langthorpe. *hc*, C. E. Morgan; T. L. Nash, Sproutington.

ANY OTHER VARIETY.—1, J. F. Walton, Horncliffe. 2, Rev. G. Renton, Crook. *hc*, T. L. Nash; H. Johnson, Bishop Auckland.

SELLING CLASS.—*Cock, Cockerel, or Drake*.—1, J. T. Proud. 2, Pallister and Hawkins, Topcliffe, Thirsk. 3, Pickering & Douglasby, Driffield. *vhc*, G. B. Bell; J. T. Proud. *hc*, A. Widdas, Wotton-le-Wear; C. Widdas; R. Moore, East Rainton; J. F. Walton; T. P. Carver. *c*, Wells & Sherwin, Ripon; J. Russell, Wharby.

SELLING CLASS.—*Hen, Pullet, or Duck*.—1, T. Robson, Bishop Auckland. 2, J. Robson, Bishop Auckland. 3, J. F. Walton. 4 and 5, J. T. Proud. *c*, G. B. Bell. *vhc*, C. Widdas; T. P. Carver; G. H. Procter, Durham. *hc*, Mrs. Ellis, Darlington; A. Widdas; R. Moore; Pickering & Douglasby; Furness and Siddle, Rawtenstall. *c*, Wells & Sherwin; R. Moore (2); H. Robinson; T. P. Carver.

PIGEONS.

CARRIERS.—1, T. Bowen, Wotton Park. 2, Wells & Sherwin. *hc*, J. Robinson, Sunnyside, Towlaw; Wells & Sherwin; R. Blacklock, Sunderland. *c*, T. P. Carver.

POSTERS.—1 and 2, R. Blacklock. *West and c*, Wells & Sherwin.

TUMBLERS.—1, E. Dodd, Durham. 2, Wells & Sherwin. *vhc*, W. J. Donkin, Newcastle-on-Tyne. *hc*, W. J. Donkin; E. Dodd.

JACOBIANS.—1 and *hc*, G. Trueman, Bishop Auckland. 2, T. Bowen.

TURBOTS.—1, T. Bowen. 2, G. Alderson, West Hartlepool. *hc*, G. Trueman. *c*, G. R. Cochrane, Sedgfield.

FANTAILS.—1 and 2, J. F. Loversidge, Newark. *hc*, W. Bulmer, Stockton-on-Tees. *c*, J. Hemmings, Towlaw.

OWLS.—*English or Foreign*.—1, G. Alderson, West Hartlepool. 2 and *hc*, G. Trueman. *c*, R. Stephenson, Bishop Auckland (2).

ANY OTHER VARIETY.—1 and *vhc*, M. Ord, Sedgfield. 2 and *hc*, G. Trueman. 3, T. Bowen. *c*, J. Robinson (2).

RABBITS.

LOP EARED.—1 and 2, B. Eoden, West Hartlepool. 3, J. S. Robinson, Darlington. *hc*, W. Pearey, Spennymoor; R. Addison, West Hartlepool; W. Bailey, Darlington; M. Maughan, Bishop Auckland.

ANY OTHER VARIETY.—1, J. F. Walton. 2, C. E. Morgan, Bishop Auckland. 3, Mrs. Preston, Bishop Auckland. *hc*, R. Fishwick, Bishop Auckland; Mrs. Etherington, Bishop Auckland. *c*, J. W. Garbutt, East Junction; A. Gardiner, Bishop Auckland.

JUDGE.—Mr. Hutton, Leeds.

THE PARAGON LAMP.

LAST week we noticed the Hurricane Lantern introduced by Messrs. Dietz & Co., of Carter Lane, and we now introduce to

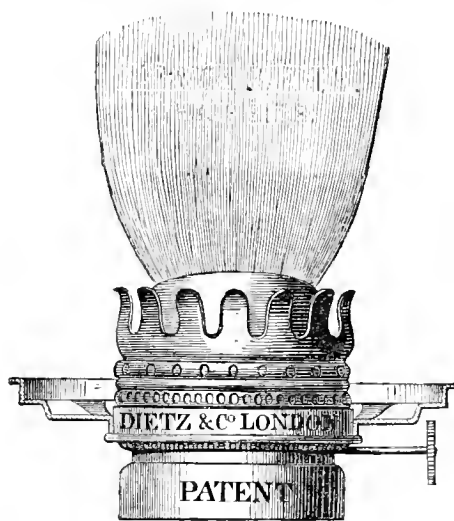


Fig. 47.

our readers another invention of the same firm, which is more for domestic use. It is a new form of burner, which is applied to paraffin lamps, and is so constructed as to produce a flame of unexampled brilliancy, the light being white and dazzling, the result of a perfect combustion of the hydrocarbon. Our figure represents a burner of half the natural size; and the flame produced by a 1½-inch wick is nearly 3 inches wide and 2½ inches high. These are the best of the paraffin lamps that

have been brought under our notice, and for country houses they will be accepted as a great boon.

MANAGEMENT OF EARTHENWARE.—New earthenware should, before being used, be soaked in cold water for twenty-four hours; this will render it less liable to crack, as well as enable it to be made thoroughly clean. For washing articles which are not greasy, such as tea things, &c., every housekeeper should be provided with a good-sized wooden bowl, for by contact with this they will be less liable to be chipped and broken than when an earthen basin is used. Still further to avoid the danger of breakage, one article only should be put in at a time. A small cloth should be kept with which to cleanse them while in the water; for merely rinsing them and then wiping them on the tea-cloth will not ensure cleanliness. For washing the insides of jugs, a miniature mop, with a handle a foot long, like those sold for cleaning the chimneys of lamps, is indispensable. A little soda should sometimes be used for washing jugs, and if the same is occasionally used for washing tea-things, it will make them look much cleaner and brighter. Soda should, however, never be used except in small quantities, nor should it be constantly employed, as it has a tendency to injure the glaze. Soap or potash has not this injurious effect, but neither cleanses so thoroughly as soda. For tea-cloths linen must be used, as cotton fabrics are not sufficiently absorbent to dry the earthenware. For washing greasy earthenware, two tubs of suitable size should be provided; one, in which to wash them, must contain hot water, with a little soda, or, for the reasons stated above, potash or wood ashes, and the other, in which to rinse them immediately after they are washed, must be filled with clean cold water. After rinsing they should be placed in a rack, and they will be dry and fit to use or put by in an hour. Without the soda or some similar substance, perfect brightness and cleanness will not be secured. For keeping earthenware, a dry closed cupboard is to be recommended, for if the articles become either damp or dusty they will not look bright or well, even though they may be wiped when required for use.—(*Cassell's Household Guide.*)

PLURALITY OF QUEENS.

The experience of bee-keepers is asked by Mr. Boulton, of Ulverston, in the number of July 16th, on the subject of a plurality of queens in a hive. In the year 1850 I put a swarm with three-year-old queen into a unicombe hive, June 17th. On August 11th I observed two queens, one old (which I could distinguish by a defect on one wing), the other plump and young. They were perfectly amicable. I saw them lay eggs in contiguous cells. This continued for some time, and after a while the old queen was missing. Does this not indicate that, under peculiar circumstances—*e.g.*, the failing powers of an old queen at a time of year when there are no drones, the natural hostility of queens is repressed, and thus a wise provision made for the preservation of hives which would otherwise perish?

The season about here has been this year peculiar. I have ten hives, eight of them being very forward, hanging-out and with drones at the end of April. Then came the bitter weather of May, when they killed the drones, dragging-out the larvae. I have had but one swarm, and have taken 100 lbs. 4½ ozs. in glasses, side boxes, from eight of these hives. There has been no white clover, and the pastures are dried-up. No honey was gathered after the second week in July.

My neighbours in Rutland have had very few swarms, and some of them very little honey.—C. ALLISON HOLMES, *Thistleton Rectory, Grantham.*

OUR LETTER BOX.

BRAHMAS AND PHEASANTS LISTLESS AND AILING (*One Anxious for his Pets*).—You give no symptoms of rheumatism. It seems to us your birds suffer from mistaken care in some respects; instance, they are shut up in a nice shady yard during the heat of the day. A yard suggests to us a place with a flooring or pavement—brick, wood, or stone. Either would cause the malady you complain of. We cannot imagine a good run when the birds cannot find sufficient shelter. We have no respect for sharps, nor for tincture of acetic. We are by no means sure the birds want the latter. Let them have the run all day. They will find shade. The Pheasants may still roost under the rip with the hen. Shift the rip every morning. Peel on ground oats or barley meal in the morning, maize and scraps at midday, and ground oats in the evening. These latter should be mixed with milk. Let all feed alike, except that you may add some curli to the Pheasants' food. The Pheasants should roost under the hen, and the chickens also as long as they will. After the hen refuses to hover them at night she may be taken away, and the chickens will roost in the rip she has vacated. Feed them well; they will gain strength and appetite. The Pheasants want feeding oftener than the chickens.

LEICESTER POULTRY SHOW.—"In your report of Leicester Show in last week's Journal, you have H. Thompson as winning the first prize for Buff Cochin chickens. I beg to say I won the first prizes for both old birds and chickens.—H. TOMLINSON."

CANARY ASTHMATIC (*E. Walpole, jun.*).—"If the bird be moultling now it is not out of due course, and ought not to interfere with any local ailment from which it may be suffering. You can do nothing but keep it in a warm place

away from draughts. It may last the winter and sing again, but the chances are against it. Give a drop of cod-liver oil occasionally from a pointed stick, and a little bread and milk in the mornings.—W. A. B.

BOOK (*David Bruce*).—"We never heard of any book by the writer you mention.

CANARIES RUPTURED (*E. B. T.*).—"I have always found castor oil a tolerably certain cure if administered in time. A homoeopathic authority who has wonderful success in his bird-room advises the following:—Lycopodium sixth dilution on first appearance, afterwards *Calcarea carbonica* sixth dilution; and if thoroughly prostrated, and after diarrhoea has set in, *Arsenicum* sixth dilution. Give two drops to an ordinary water tin, which must be thoroughly clean, particularly on changing the medicine. These medicines can be had in 6d. phials of any homoeopathic chemist, and must be kept in a cool place.—W. A. B.

HIGH-COLOURED CANARIES (*T. S.J.*).—"We reprinted the recipe last week. No particulars as to quantities were given by Messrs. Bemrose & Orme.

HONEY-GATHERING.—"I beg to state that I am not the 'Mr. Shearer' who has informed Mr. Pettigrew of the wonderful feats of honey-gathering by bees, as stated by him in page 134 of last week's Journal.—ALEX. SHEARER, *Yester Gardens.*"

METEOROLOGICAL OBSERVATIONS,

CAMDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W.; Altitude 111 feet.

DATE.	9 A.M.				IN THE DAY.					
	Barom. ter at 59, and Sea Level.	Hygrome- ter.		Direction of Wind.	Temp. of Soil at 1 foot.	Shade Tem- perature.		Radiation Temperature		Rain.
		Dry.	Wet.			Max.	Min.	In sun.	On grass.	
1874.	Inches.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	In.
Aug.										
We. 5	29.8 0	58.8	58.5	S.W.	61.2	62.4	48.0	78.3	46.9	0.420
Th. 6	29.849	61.4	58.0	N.W.	60.3	73.3	58.8	12.0	50.4	—
Fri. 7	29.825	63.1	60.0	S.	61.7	71.8	53.0	191.3	49.8	0.036
Sat. 8	29.661	62.9	58.0	N.W.	62.2	70.4	53.9	121.8	52.0	0. 9 9
Sun. 9	29.855	63.1	58.1	W.	61.4	71.1	52.2	114.5	49.8	0.047
Mo. 10	29.579	63.1	59.0	W.	61.0	69.8	55.7	115.6	55.3	6.100
Tu. 11	29.791	58.6	55.4	W.	69.2	68.3	59.4	119.2	47.8	0.028
Means	29.762	61.1	56.1		61.1	69.6	52.4	110.2	50.9	0.371

REMARKS.

5th.—Cloudy till noon; frequent slight showers in afternoon; in fact, a cheerless damp day.

6th.—A lovely day throughout; dry, cool, and very bright.

7th.—Rather dull morning, afterwards cloudy, windy, sometimes almost rainy, but with bright gleams of sunshine in between.

8th.—A very pleasant day, some parts of it particularly so.

9th.—Fine till about 2 P.M., when it clouded over. Rain began at 7 P.M., and continued to fall more or less all the evening.

10th.—Dull morning; rain before 10 A.M.; thunder at 1.40 to 2.30, and between 6 and 7 P.M.; alternate sunshine and showers.

11th.—Fine, but very boisterous wind till the afternoon, when it gradually lessened, and the evening was quite calm.

A slight fall in the temperature, caused, probably, by the frequent showers which have alternated with bright sunshine during the week. Many of the showers, though very short, had all the appearance of thunder showers in the largeness of the drops and the puffs of wind by which they were preceded.

ERRATUM.—In the remarks appended to last week's table the word "*some*" of the recent storms is printed, instead of "*none*" of the recent storms.—G. J. SYMONS.

COVENT GARDEN MARKET.—AUGUST 12.

SUPPLY well kept up, and a fair average amount of business doing.

FRUIT.

	a. d.	s. d.		a. d.	s. d.
Apples.....	½ sieve	1 0 to 1 6	Mulberries.....	½ lb.	1 0 to 0 6
Apricots.....	doz.	3 0 4 0	Nectarines.....	doz.	0 0 15 0
Cherries.....	½ lb.	0 6 1 0	Oranges.....	½ 100	4 0 16 0
Chestnuts.....	bushel	0 0 0 0	Peaches.....	doz.	6 6 21 0
Currants.....	½ sieve	4 0 0 0	Pears, kitchen.....	doz.	0 0 0 0
Black.....	do.	5 0 0 0	dessert.....	doz.	2 0 3 0
Figs.....	doz.	3 0 4 0	Pine Apples.....	lb.	2 0 6 0
Filberts.....	lb.	1 0 1 6	Plums.....	½ sieve	3 0 4 0
Cobs.....	lb.	1 0 1 6	Quinces.....	doz.	0 0 0 0
Gooseberries.....	quart	0 0 0 0	Raspberries.....	lb.	0 6 0 0
Grapes, hothouse.....	lb.	1 6 0 0	Strawberries.....	½ lb.	0 0 0 0
Lemons.....	½ 100	12 0 16 0	Walnuts.....	bushel	10 0 16 0
Melons.....	each	3 0 6 0	ditto.....	½ 100	2 0 2 0

VEGETABLES.

	s. d.	s. d.		a. d.	s. d.
Artichokes.....	doz.	3 0 to 0 0	Lettuce.....	doz.	1 0 to 2 0
Asparagus.....	½ 100	4 0 8 0	Mushrooms.....	pottee	2 0 8 0
French.....	0	0 0 0 0	Mustard & Cress.....	punnel	0 2 0 0
Beans, kidney.....	½ sieve	3 0 4 0	Onions.....	bushel	2 0 5 0
Broad.....	bushel	4 0 0 0	pickling.....	quart	0 6 0 0
Beet, red.....	doz	1 0 0 0	Parley per doz.....	bunches	2 0 4 0
Broccoli.....	bundle	0 9 1 6	Parasitica.....	doz.	0 9 1 0
Cabbage.....	doz.	2 0 3 0	Peas.....	quart	1 0 1 6
Carrots.....	½ 100	0 0 0 0	Potatoes.....	bushel	8 6 6 0
Carrots.....	bunch	0 6 1 0	Kidney.....	do.	4 0 8 0
Cauliflower.....	doz.	3 0 6 0	New.....	½ lb.	0 0 0 0
Celery.....	bundle	1 6 2 0	Radishes.....	doz. bunches	1 0 1 6
Coleworts.....	doz. bunches	2 6 4 0	Rhubarb.....	bundle	0 9 1 0
Cucumbers.....	each	4 0 4 0	Salsify.....	bundle	1 6 0 0
Broccoli.....	doz.	1 0 0 0	Scorzonera.....	bundle	1 0 0 0
Endive.....	doz.	2 0 0 0	Sea-kale.....	basket	0 0 0 0
Fennel.....	bunch	0 3 0 0	Shallots.....	lb.	0 8 0 0
Garlic.....	lb.	0 6 0 0	Spinach.....	bushel	2 0 3 0
Herbs.....	bunch	0 3 0 0	Tomatoes.....	doz.	1 0 3 0
Horseradish.....	bundle	3 0 4 0	Turnips.....	bunch	0 3 0 0
Leeks.....	doz.	0 3 0 0	Vegetable Marrows.....	doz.	2 0 3 0

WEEKLY CALENDAR.

Day of Month	Day of Week	AUGUST 20—26, 1874.	Average Tempera- ture near London.			Rain in 43 years.	Sun Rises	Sun Sets.	Moon Rises.	Moon Sets.	Moon's Age.	Clock before Sun.	Day of Year.
			Day.	Night.	Mean.								
20	TH	Blackcock shooting commences.	72.8	50.6	61.7	20	55	4	9	2	52	9	232
21	F	Easton Flower Show.	72.6	49.7	61.2	11	57	4	9	7	53	10	233
22	S	Wakefield Horticultural Show.	71.6	49.7	55.6	27	58	4	7	7	23	10	234
23	SUN	12 SUNDAY AFTER TRINITY.	71.8	49.0	60.4	17	0	5	5	7	30	5	235
24	M	St. Bartholomew.	71.6	47.9	59.7	16	1	5	3	7	11	6	236
25	TU	Banbury Horticultural Show.	74.1	49.7	61.9	16	3	5	1	7	46	6	237
26	W	Barton-on-Trent Horticultural Show.	72.5	48.4	60.1	15	5	5	59	6	9	7	238

From observations taken near London during forty-three years, the average day temperature of the week is 72.4°; and its night temperature 49.3°. The greatest heat was 89°, on the 25th, 1859; and the lowest cold 31°, on the 26th, 1861. The greatest fall of rain was 1.32 inch.

SUCCESSSES AND FAILURES.

THE Editors have surely done well in giving Mr. Pewtress's hint to the world. It is in human nature for a man to be proud of his success, and rightly so; it is right, too, that it be recorded with a plain narrative of its achievement, for it becomes instructive in pointing out a path to others who are seeking the same end. Such narratives, however, should be very plain and matter-of-fact, not written with a motive of self-glorification, but with a main object and intention of giving friendly aid to a struggling brother. A record of successes is, then, one of the best means of imparting information, and that in a form to work by; and the nearer it does this, the plainer it can be seen, and the easier it is to transfer from paper to practice, the more is its value enhanced, the object of the writer appreciated, and a detail of his experience welcomed. But after saying this it must be, beyond all controversy, the fact that a "chronicle of failures, and above all the reason why," would be of immense usefulness in pointing out the bogs and quicksands of gardening into which many a worker falls when he is least aware of their presence. But by the same principle that man is prone to advert to that which adds to his reputation, he is averse to recording anything which he may feel can be interpreted as detrimental to his fame. That is human nature, and what does it prove? Just human weakness. It is a manly act to own a fault, admit an error, acknowledge a failure, and it requires strength of mind and moral courage to do this, which is always commendable—yea, even more so than the honour which attaches to a success, which may have cost little or no sacrifice by physical, mental, or moral effort. I think it was Wellington who, on seeing a man pale on entering the deadly breach, expressed his admiration of the courage of that man above his fellows, who rushed in with seeming thoughtlessness; he saw and felt the danger, yet faced it, his comrades entering without seeing or heeding any danger at all.

We may take it that every successful man has had failures, and if he, for the benefit of others, summons-up courage to recount them, he does a good thing—a noble act which any right-minded man will appreciate. How frequent is a scene like this: A visitor comes into a garden, he may see things very good, and compliments the owner and manager alike; he has come to praise, and he praises. It is very pleasant, and is more or less encouraging, but I candidly own that I esteem it a greater favour to be in a right mind and manner told wherein I fail and why. So does every man, except the few unteachables whose misfortune is that, with them, pride and ignorance have the same meaning, only they do not know it. Some years ago my employer pointed out to the chief of a firm what he conceived a failing point. The reply of the latter was, that the greatest kindness anyone could confer was to tell him, not where he was strong, but where he was weak. That firm has

now one of the largest seed and nursery businesses in the world. Mr. J. W. Pewtress is of the same spirit, and eventually he will succeed.

The question is fruit failures, and in no branch of gardening are failures more common. In this matter I am one of the "erring ones." I have been within garden walls nearly thirty years, but not a day too long to be able to plant a garden with fruit trees to the best advantage. I might fail now as others, older and better men, have failed also, but should not make the same mistake as in more youthful days that most young men, and old men, though young gardeners, are apt to commit. Mr. Pewtress has made a mistake—he admits it—hundreds would be glad to help him out of it, but will feel their lack of power. I am of the weak but willing throng. Mr. Pewtress says, "I think the reason why I fail is that my garden is too early. A warm south aspect on the slope of a hill brings fruit trees into bloom, and makes vegetables of all kinds two or three weeks earlier than my neighbours", and as a result the late spring frosts destroy all the promise that was displayed." Here is a failure of no small magnitude—unsuitable site. He is not alone; but that is no aid, and his best consolation may be that it is unavoidable. It may have been, there or nowhere. That is often the case, and the grievance should certainly be less than when a man has had a choice of a good site and selected a bad one.

It may be, however, that he has made another mistake—the common snare above alluded to—of planting far too many varieties in a given piece of ground. If he has, there is hope for him, and that out of the number a portion may peradventure prove themselves adapted to the site. Fruit trees would seem to have their caprices, one variety appearing to be at home in one district, and another in another. It is always well to mark what may be called the local fancies of fruit trees, and to plant extensively those kinds which flourish in the places in which more trees are required. Fruit-tree catalogues are very alluring. The description of varieties is skilfully given, and there is generally one quality in this and another in that rendering most irresistible to the would-be planter, who is invested with a power to plant largely for the first time in his existence. It is not suggested for a moment that the lists are drawn up to mislead, but, on the contrary, they are very faithfully done. But it is not possible, in reading of the virtues of the several varieties, to be certain that these virtues will show themselves when the trees are planted in any particular district. If justice is done them they are mostly as good as represented. The thing is to find out the locality that naturally suits certain sorts, and this can only be done by experience. In looking over a garden of fruits in great variety, one is soon struck with a few kinds that invariably do better than their neighbours. They are nearly always laden with fruit, while others are generally destitute of it. The remark, under such circumstances, is frequently heard, "If all my trees were of these sorts I should be full of fruit." Then why not graft? That is the common-sense plan to adopt when half the trees in a garden are

invariably barren, and the other half fruitful. By attention to this one point—restricting the kinds which do naturally well in a certain district, grafting the unprofitable ones with sorts that are profitable, the fruit-resources of the country would be materially increased in a very few years.

Were I called on to plant extensively to produce a useful supply of fruit, I should limit myself to a very few sorts which I had reason to believe would prosper in the locality. Were I, on the other hand, to find already planted great variety producing little fruit, my one object would be to keep cutting-down the worst—those that would not do—and grafting with the best—that is, with those proving themselves good and certain bearers. By that plan in time, and no long time either, there would be plenty of fruit. That is the practice that will have to be adopted by those who have planted on the one-tree-of-a-sort system before they get any satisfactory bulk of fruit. Growing trees one of a sort on the pigmy system—that is, carrying root-pruning and summer-pinching to extremes with trees in an early state, will result in a garden museum of pomological curiosities, but never in a full and useful harvest of fruit. This infantile mutilation of fruit trees is going out of fashion, simply because the majority of growers can see no good in it. There may be fanciful amateurs who enjoy an orchard of lili-pution trees, and they have a right to indulge in the mode of culture that best pleases them; but for a huge bulk of useful produce let the trees have liberty to build-up a stout, sound framework, permit them to attain a healthy development, and then, if the sorts be good in themselves and suitable to the district, a golden yield may be expected. I like both root-pruning and summer-pinching, but not with severity when the trees are young and small, converting them into stubborn stunted dwarfs to die prematurely by lack of vital force.

But another idea may have utterance respecting Mr. Pewtress's trees and their liability to injury by frost in spring. It is this—that fruit blossom often suffers more on trees in a young state than on older ones. Has not everybody observed an old standard tree laden with fruit, when young dwarfs around it are fruitless? This very year our orchard of young trees has produced nothing, while some old ones towering high in the air are carrying a useful crop. They were all alike covered with blossom, but that of the young ones is taken, and that of the old ones left. Frost was the fell destroyer. But why? The position is a low one. Was it not that the upper strata of air was drier than the lower one at the moment of the frost's visitation? I am of opinion that that is the solution of the difference, and I am fortified by the fact that another orchard in the same parish, but high and dry and exposed, is literally laden with fruit, although the frost was fully as severe as on the spot where every blossom was killed. If I take my stand in this place for instance, and with an imaginary pair of compasses set to a mile radius draw a circle, and within this estimate the fruit on low-growing young trees, not only bush and pyramid, but young half-grown orchards on the one hand, and old tall standard trees on the other, what do I find? Where I find 10 cwt. on the low ones in the damp strata of air, I find 10 tons on the tall ones, where the air was drier at the time of blossoming. This is very startling, but very true. It is not always so, the younger and dwarfer trees sometimes bearing prodigiously, as, indeed, this spring they were in a sheet of blossom.

There is much yet to be learned on the relative hardness of the blossoms of fruits, and if those having large collections would steadily observe this point, something valuable might be educed. No wish is entertained to discourage the planting of dwarf trees; on the contrary, varieties suited to localities, and these planted by the dozen or hundred, according to size of garden, instead of having every tree a separate variety, would give abundance of fruit in a few years. My experience leads me to this, that in districts subject to spring frost let the trees have liberty and get up in the air. Better have to get ladders to gather than have no fruit to pick. That, too, is the best means of retarding and hardening blossom by its exposure to the full sweep of a cooler rarer atmosphere than exists a few feet from the ground. I remember on a certain June 2nd having five thousand Geraniums killed in the beds, a number in tall vases above them escaping with injuries, but easily recovered. This may be cold comfort to Mr. J. W. Pewtress, who seems to have gone in for miniature trees. His plan, if his sorts are numerous, is, I venture to suggest, to watch and graft, and he may yet get fruit. There are other three lines in his letter that most people will admire:—"I daresay another gardener would succeed better, but my man

snits me in so many ways I must keep him, even if I lose my fruit by it." Mr. Pewtress need not have told us he was an "old man." He has evidently world-experience. No man is perfect in everything, and if his gardener suits in "many ways" he is not far below average. There is much discomfort engendered by both masters and men expecting too much. If a man suits in "many ways," keep him; if a master in most, stay with him and serve him well, and there will be more comfort, confidence, and content in the world than at present exists. Mr. Pewtress may rely on it that it is not his man that is the cause of his having no fruit under the circumstances he describes, but a younger man might have thought so, and have changed a servant suiting in many ways for another that suited hardly in any; but to get a man to fill a garden with fruit on unsuitable varieties on an unsuitable site cannot be expected without expecting too much. We ought to have a supreme pity for unfortunate gardeners who are expected to "make bricks without straw," and a supreme honour for those employers who can and do think calmly and decide justly, not only as to the capacities of the man, but as to the nature of the material he has to work with, and the circumstances surrounding and governing the work.—J. WRIGHT.

DISBUDDING ROSES.

I STATED in my account of the Frome Rose Show that Mr. Keynes, of Salisbury, introduced the art or practice of disbudding Roses. My reasons for stating this were that Mr. Keynes has often told me so; and secondly, my friend Mr. Reynolds Hole makes the same statement in his "Book upon Roses," page 294, fourth edition. Since my letter appeared Mr. Cant, of Colchester, has written to me to correct the statement; and as I think it is not only just that we should give "honour to whom honour is due," and also important that rosarians should know who first introduced this practice, I will ask your leave to quote that portion of his letter which refers to the question.

"With respect to your letter in JOURNAL OF HORTICULTURE, somehow you have been misled in stating that Mr. Keynes was the first to introduce the practice of disbudding. I used to do it before Mr. Keynes appeared in the field as one of the great Rose-growers, and well call to mind the fuss that was made about it as far back as 1859 at the National Rose Show. (I think it was at the Hanover Square Rooms). Some of the exhibitors thought it unfair, and others even went so far as to say I ought to be disqualified. I admit that I did not carry out the disbudding to the extent it is done now, simply because I was afraid to do it. More notice was probably taken of it when Mr. Keynes came out, because he did it without finching."

This letter will, I think, settle the question, as, if it was at the Hanover Square Rooms, and in 1859, that disbudded Roses were first exhibited, that would be at the second National Rose Show, at which I believe Mr. Keynes did not exhibit.—JOHN B. M. CAMM, *Monkton Wyld*.

THE POTATO CROP.

FROM personal observation near the seacoast of Wales, and in some of the midland counties, we can testify that as late as last week the Potato plants in field and garden were *rigorous* and undiseased. We emphasise "vigorous," because we consider that varieties so late in ripening should not be cultivated. The season of danger commences about the end of July, and we believe that if every Potato were out of the ground between that date and the 10th of August the Potato disease would be altogether avoided.

We met recently large cultivators of the Potato, and they all said that they in future should cultivate no variety that is not early or middling early.

WELL done, "H. G. M.!" (see page 148). You are well to the front, but you are none too soon, for the rains are upon us, second growth is making rapid progress, and the blight looms behind darker than the thunder cloud which foretells its advent. I began lifting the general crop three days earlier this season, and have tried hard to finish to-day, August 13th, but the drenching rain drove us from the field, and last night most of us were wet to the skin; but the bulk of the crop is in a nice airy storehouse, and a few hours' more fine weather will bring the Potato culture of 1874 to a successful issue. My mainstay, Paterson's Victoria, is an excellent crop, the

tubers numerous and large—much larger than I anticipated, and the quality all that could be wished. Other kinds are also good, the whole of them being literally without disease of any kind.—EDWARD LUCKHURST.

BEDDING GERANIUMS.

THE discussion of bedding Geraniums in your paper is acceptable to many. The Roses have had their benefit, and it is time their companions in the flower beds had a turn. Mr. Peach has kindly sent a paper for the last two or three seasons, and other correspondents a few notes only. Will they now contribute something fuller? A warm vinery for the young stock in winter, and rich soil for them in summer, are not attainable by most gardeners. Colder treatment and poorer soil must be matched with stronger kinds than most of Mr. Pearson's. Arthur Pearson is fine anywhere, and Douglas Pearson in most places; but when I saw Amaranth, Mrs. Musters, and others lately at Battersea Park, the colours were lovely; but where was the mass of colour attainable by Lucius, Bonfire, and pre-eminently Waltham Seedling? Where was the effect? A mass of green leaves, and peeping tints! The same thing struck the observer at Kew Gardens in relation to a good many other kinds of new Geraniums. The strong and free kinds are a necessity to most gardeners, and this is why further communications will be very welcome.

Bronzes ought to be discussed. The greenish kinds, Kentish Hero and Beauty of Calderdale, extensively grown for their vigour, want to be replaced by equally vigorous kinds with golden leaf-ground. Bedding whites and blush whites are a matter of uncertainty.

What relations of Madame Vaucher and François Desbois will stand wet weather and bloom well out of doors? Mr. Cannell studies dwarf-growing Geraniums particularly. Will someone write for exposed situations and light soils, where the dwarf kinds are mere pigmies? Violet Hill, Charley Casbon, &c., are failures in such a situation; so I fear Mrs. Upton must prove, though far better than the seed-spikes of the old Christine. Pink May Queen, recommended by Mr. Peach, is unsightly where the wind can reach it, and bears very few trusses anywhere. Vesuvius is scantier yet of flowers upon its manifold trusses when the breeze touches it, and I mean to grow it no more, for it never has trusses fit to gather, and only makes up by quantity for palpable want of quality. A dark scarlet called Chief Justice, of Mr. Paul, is fine here; it is derived from St. George. The double pink Marie Lemoine has been lovely for two months, always dwarf but covered with flowers; old plants doing best, inasmuch as young doubles do not make flowers till July.

Lastly, I should rejoice to see undeserving but much-puffed kinds of Geraniums exploded and puffed out; not from uncharitable feelings, but for the same reason that I find pleasure in seeing a detected bad halfpenny nailed to the counter, that it may go on its road of roguery no further.—C. S. B.

FRUIT TREE MANAGEMENT.

As your correspondent Mr. Pewtress wants a few hints as to the management of his fruit trees, I will endeavour to give him a little assistance. I cannot understand how he can find fault with the situation of his garden. I should think "a warm south aspect on the slope of a hill" is the situation to be desired above all others; and the fact of vegetables coming earlier than elsewhere is a great recommendation, and would tend to show that the soil is a dry one and suitable for fruit trees. I should think the reason of the failure is that the sorts selected are too delicate for standards. Has he tried the Victoria, Orleans, Gisborne's, and Magnum Bonum Plums; the Beurré Diel, Emile d'Heyst, and Bergamotte d'Esperen Pears (as pyramids); the Keswick Codlin, Hawthornden, and Lord Suffield cooking Apples; and Pearson's Plate and Nonpareil Apples for dessert? If not, I should recommend him to try them and other hardy sorts.

Now as to failures. I had a fine standard Easter Beurré Pear, the fruit of which was good for nothing. I have had it cut back and grafted with Beurré Diel. What was the cause of the failure? your correspondent may ask. The answer is that it is a useless Pear here, except as a pyramid on the Quince. I have two Plum trees which are failures as standards, the Cherry Plum and Washington, which I intend to have cut back and grafted with some good cropping Plum. The reason the Cherry Plum does not succeed is that it blossoms so early

(sometimes in February) that the bloom is always cut off by the spring frosts, and Washington I find not satisfactory in that respect. It is a good plan to plant a row of pyramid Pear trees within 7 or 8 feet of a wall, so as to secure a little shelter without being so near as to injure the trees trained against the wall.—AMATEUR, Cirencester.

IN AND OUT OF ABERYSTWITH.—No. 4.

WHAT cottage gardeners can effect is fully illustrated here. The town is well supplied with vegetables entirely from the gardens of the cottagers in the vicinity. Their wives and daughters come into the town bearing one or two baskets containing small parcels—and only small parcels—of whatever their gardens are producing. Two baskets which I saw this morning borne by different women contained samples of our daily supplies. One had in it three Vegetable Marrows, two leaves full of Kidney Beans, and a few Potatoes. The other basket held Apples, Red Magnum Bonum Plums, three Cabbages, and some Potatoes. Both baskets in one of their corners had some small bouquets. Mushrooms are also a specialty just now, and dozens of baskets of them are offered every morning, being the produce of the vast pastures around. Having small parcels and a variety, suits both the buyers and the sellers; the buyers have their vegetables fresh every morning, and the sellers have rarely a surplus to carry home unsold. Chickens, ducklings, and eggs are brought to our door by other cottagers' wives in the same way. All seem to have regular customers, and if one vendor has exhausted her basket of its contents and meets a neighbour who has been less successful, I see she takes some of the latter's commodities, and going in a different direction evidently tries to aid in vending them. There are stalls in the Market House where vegetables and fruits are sold, but they are chiefly supplied from the cottagers' gardens. I say, "chiefly," because there are packages about them containing West India Pine Apples, Spanish and even greenhouse Grapes brought by the railroad.

The cottage gardens have the advantageous peculiarity that, slate and shale composing the surrounding mountains, they are enclosed by thick walls composed of those Silurian formations, and the cottages are constructed of the same materials. These when unwhitewashed, which they very rarely are, have a chequered appearance, each dark block being encompassed by a white line of mortar. Against the walls and houses the Plum trees are trained which supply the baskets of the market women. Manure from the pigstye and collected from the roads are the fertilisers.

I have often replied vaguely to queries about flowers that will thrive close to the sea, but I can now say that the common Nasturtium (Tropaeolum), and Mignonette flourish most luxuriantly and flower abundantly here, within 5 yards of high-water mark, and they are wetted frequently by the sea spray.

This is a vicinity where a Cottagers' Garden Society might be established advantageously, for, as I have stated, the cottagers exert themselves—and their exertions are successful—to supply the town with vegetables and fruits; but the varieties are the oldest mentioned in our gardening books—Charlton Peas, Sugar-loaf Cabbages, inferior Cherries, Plums, Apples, and Pears—of these last there are only a very small green variety, a very small yellow and red variety, and the Windsor. A local society could promote the introduction of superior and more remunerative varieties, and be the means of preventing the intrusion of some large establishment, which would impoverish many a cottage fireside.

Within a few miles of Aberystwith the lead-mine region is reached, and there gardening is at its lowest. I may be mistaken, but my belief is that in that region there is not a really good cottage garden. This is not wonderful, perhaps, for the bread-winners are delving underground and have no surplus time or energy to delve its surface. Let me not be understood as depreciating the miners; they are a race that aid largely to maintain our country among the heads of nations. Never was I more gratified as well as surprised, for it has been to me an unknown region, to find in the parlour of a little inn far-up among the mountains, shelves of books hundreds in number, including scientific works, Shakespeare, Moore, Scott, dictionaries, novels, English and Welsh bibles. The landlady explained that the room was the evening resort of the miners. All honour to them, and let Londoners especially regard this vicinity, for to it they are indebted for their supply of New River water. This is no paradox. Sir Hugh Middleton made

his vast fortune from the Cardiganshire lead mines. From one, that of Cwmsymlog (Coomsymlog), he profited £25,000 annually, and he sacrificed his wealth in obtaining for London its best water-supply.

The little inn alluded to was reached by me on my road to Bedd Taliesin—Taliesin's grave. Is not Bedd the word from which our "bed," a place also of rest, is derived? No one who has a taste for a combination of the grand and the beautiful in mountain scenery will regret proceeding thither from Aberystwith. The deep valleys richly wooded, the precipitous yet wooded mountains, the paths mere shelves on their sides, are each and all sources of gratification. Nor will it be least gratifying to find that the last building, very far distant from but one other at the summit of the mountain, is a place for Divine service. Nor is this association of the lone memorial of the Welsh bard and a lone Christian pulpit incongruous, for one of the Welsh Triads records that Taliesin was one of "the Christian or baptised bards." This is probably a reason that, although he lived fifteen hundred years ago, so many of his poems have been preserved. The monks, the great librarians of the middle ages, would regard more kindly his mental offspring. Eighty poems attributed to him have been preserved, chiefly mystical, theological, historical, and elegiac. I will only give the translation of one extract from his "Mead Song," for that is not foreign to your pages:

"To Him that rules supreme, our sovereign Lord,
Creation's Chief, by all that lives adored,
Who made the waters and sustains the skies,
Who gives and prospers all that's good and wise—
To Him I'll pray that Maedwyn ne'er may need
Exhaustless treasure of the sparkling mead."

Other extracts might be published relating to fitting subjects, and from other bardic and triad pages, before arriving at the era of Hywel Dda—that is, Howell the Good. He was born about the end of the ninth century, and died in the year 948. His code continued in force until Wales was subjugated by Edward I., and its enactments throw much light upon the values of the productions of the garden and field in those days. The value of horses, cows, sheep, and pigs is specified at various ages to be paid by those who killed, or injured, or stole them. Of a cat, "after it could kill mice, 2d." If the cat was killed or stolen from the king's barn "it was to be suspended by the tip of its tail, with its head touching the ground, and to have Wheat poured over it until the tip of the tail was covered." The heap of Wheat was the penalty.

A gander was worth two geese, and a goosie was valued at 2d. A hen was valued at 1d., and a cock at two pence. To constitute a cock it must have crowed, and to constitute a hen it must have laid. A stock of bees was valued at 24d., and a spring swarm at 16d., a second swarm at 8d. The penalty for destroying or stealing an Apple tree was 60d., of a Nut tree 15d., and of a Plum tree 7d.—G.

A STRANGE SUMMER SCENE IN THE SWISS WENGERN ALP.

MONDAY, AUGUST 10TH.—Yesterday morning a more wintry scene was presented than I had experienced all last winter—the ground thickly covered with snow, and snow still falling heavily, with the thermometer nearly down to freezing on the 9th of August. This state of things continued until long after the sun arose, but the weather afterwards partially cleared, when the lower snow was melted, though the surrounding hills retained their whiteness. Some of the parties amused themselves playing snowball with each other. Of course good wood fires were in requisition and much appreciated. It was altogether very strange for this time of the year, though not infrequent at this elevation (6700 feet). One gentleman, an artist, who has been staying here some time, said that on the 30th July the snow was 6 inches deep. We get what we come for—cool weather in the hot season.

Tuesday, August 11th.—The fresh snow much enhanced the beauty of the surrounding scenery, and the sun shining upon it had a very brilliant effect. Went yesterday morning out on the hills in search of wild flowers, and though later in the season than last year, yet was very pleased to meet with many of the old favourites still in blossom. One particular hollow in front of the Monch glacier was a perfect Nature's garden; so much better to my fancy than the stiff formal parterres we see in England prepared at great cost and care. The Asters, Gentians, Androsace, with the fine yellow *Arnica montana*, were quite numerous. The Rhododendrons are very nearly

over. The grazing cattle seemed hardly to know what to make of the snow on their pasturage.—E. COPLAND.

WINDOW GARDENING FOR TOWNSFOLK.

SOMETIMES it is supposed that horticultural publications have no interest in the welfare of towns. We have constantly shown that we think differently. We know that the opportunities are comparatively rare when we can be of the same service to those whose lives are spent entirely away from the country as to the bulk of our readers whose circumstances are much more favourable; but we have always done what in us lay to foster a love for plant-growing in the crowded courts and back streets of our great towns. Our readers will not, then, we think, be surprised that we should reproduce the following article on town window gardening from the columns of our contemporary the *Midland Counties Herald*.

ALMOST every human being has an inborn love of flowers. No one familiar with the habits of "the people" can fail to be aware that even in our most crowded and closest streets there is a constant struggle to gratify this love, and efforts are always being made to grow some plant or other. A Geranium or a Fuchsia, a Musk plant or a Myrtle, is perhaps the object of the loving attentions of these cultivators under difficulties. Not unfrequently a good deal of success rewards the labours thus bestowed, which it may always be assumed are labours of love. In London and elsewhere societies have been formed to encourage such efforts, and wherever the beneficial influence of such societies has been exerted they have done much good. Many a dingy home has been made all the brighter by the plants grown in them under the fostering influence and encouragement of such societies. Nor has it been essential to the happiness of the owners that a high standard of plant-cultivation should have been set up. If only a plant will live, preserve its leaves green, and occasionally gladden its owner's eyes with a flower, then the causes for supreme satisfaction are quite ample. Now and again it is possible to meet with really well-grown plants in the homes of the very poor; and we well remember on one occasion to have seen in the window of a small house in one of our back streets nearly a dozen healthy vigorous trees which would not have been discredit-able in any cottage window in the country. This by way of encouragement.

There are many plants which will thrive excellently well even in the smoke of large towns, provided they receive a few extra attentions. For instance: The soil in which they are planted should be fresh and sweet, and should be renewed at least annually; the dust and dirt which will be certain to accumulate on the leaves day by day should be occasionally removed—the oftener the better—by sponging, or the rougher and readier method of sprinkling, or the more simple one of exposure to gentle rains when they fall; then, again, plants should, on the one hand, never be overwatered, so as to convert the soil into mud, nor kept without water too long, so as to convert the soil into dust. With such means most of the more robust plants which commonly adorn cottage windows will grow and do well in those of towns. Evergreens of many varieties are well adapted for permanent occupancy of such positions, for, owing to the harder and oftentimes glossy surface of the leaves, they are hardier than most softwooded plants. The Cactus family, again, and many of the succulents, will for a long time bear up against rough usage and neglect, and the other adverse circumstances attendant upon town gardening; and their uncommon styles of growth, and flowers quaint and strange in appearance, invariably produce undag-ging interest. Bulbs of many sorts, too, are particularly suitable to fill creditably a prominent place in a town window.

A step in the right direction would be the preparation and general publication of brief accurate directions how to grow plants, stated in such plain everyday language as would be readily understood by all who can read; and to this might be appended a list of such plants as are most likely to flourish in town windows.

We should like to know that window-gardening societies were established in all our populous towns. They would accomplish a really good work, and would encourage many who are now inert to become cultivators. The duties of the committees of management would not be arduous. They might well undertake the printing and distribution of such a code of instructions as we have referred to, and which we shall have pleasure in getting prepared by a competent hand, if such a society is started in Birmingham. They might purchase

and distribute, at the lowest possible price, suitable plants, bulbs, &c., properly potted; and we are authorised to state that a townsman will annually make a present of a large number of Geraniums, &c., to such a society. They should arrange for the holding of two exhibitions every year—one early in spring, when bulbs should be shown; the other some time in the summer, for plants generally. They might also arrange for the occasional delivery of simple, but instructive addresses on plant life and plant-growing in various parts of the town. They would also have to collect funds, in order to cover necessary expenses and provide prizes, which might be in money, plants, books, or useful domestic articles. As a start, we can already promise them subscriptions from several friends interested in the movement.

To make the society as powerful as possible it would, perhaps, be advisable to arrange for the organisation of two bodies—the one central, the other local. The local sub-committees should, perhaps, be as numerous as the ecclesiastical parishes or the municipal wards. They should be chosen by the residents in their respective districts. The central committee might consist of representative members of the local ones, one or two selected from each, with the addition of perhaps a few other persons chosen by these local representatives. The work of the central committee would be to raise the necessary funds, to settle the rules, to fix the exhibition days, and to award the prizes; while the local committees would have to work-up their several districts, diffuse information respecting the objects of the society, put themselves in personal connection with the class in which the exhibitors would be found, and in other ways help on the work of the organisation. By such a dual arrangement an immense amount of work might be done, while no one person's share need be overwhelming. The connection between the localities, each being represented in the central committee, would be mutually helpful, and if well managed the society would prove all-powerful in carrying out its objects.

Here, then, we venture to submit, is a plan capable of yielding admirable results, and which all classes of the community can assist either by subscription or personal work, or both. Cannot such an organisation be started in Birmingham forthwith? No one need be frightened at the labour involved or the amount of money to be raised: £100 per annum would do the work magnificently; half the amount might possibly be sufficient to start with, and to do it fairly well.

The writer of this article was, not very long ago, in some degree instrumental in setting on foot in one of the largest towns in Lancashire a small but successful show of the kind suggested, where the exhibitors were the children attending a Sunday school in a poor district. A teacher in that school applied to him for information as to what could be done to induce the children to attempt plant-growing. He suggested that they should be supplied with bulbs, properly potted in suitable soil, for which they should pay a nominal sum. This was done; a considerable number of the children invested their pence. Simple directions what to do were given to each purchaser, and a few months after the juvenile cultivators were invited to assemble on a stated day, and bring their plants with them. These were then arranged in order of merit, and prizes, consisting chiefly of books, were distributed among the children. Not only did the children bring the plants, but their friends, all poor people, came too; and a happier gathering was, perhaps, never brought together. This effort, commenced quietly and unostentatiously, but carried on with intelligent perseverance, has already yielded good fruits, and its refining influence is growing greater and wider every year. The plan has been tried in many other towns, and nowhere without success. Surely this, and more, may be done in Birmingham.

TWO SIDES TO THE QUESTION.

We folks in the insect world don't read periodicals, yet we do get, in a way that I need not explain, some intelligence about what is going on amongst gardeners, as this often nearly concerns us. I hear with alarm the tidings that there is a movement afoot to promote the plan of planting none but early Potatoes as a precaution against disease, and were this to be carried out universally, I suppose long before August is out the Potatoes would be dug and the fields cleared. Now, only consider for a moment how hard this is upon those who belong like myself to the species called the Death's-head, or the Atropos of entomologists. We as a race come forth in

the winged state some time in July, seldom earlier, and then having deposited eggs, the caterpillars from these feed on the Potato leaves in August and September. Used to do so, I should say; for on this new plan there will be no leaves to be got at the season when they are so important to our progeny. It is true we can eat the Privet, but we don't much care for that shrub; Jasmine is rather to our taste, only on that we are exposed to more perils; and though some caterpillars with eccentric tastes resort to the wild species of Nightshade, yet the Potato has always furnished our staple diet. We feel so safe in a Potato field or plot: birds are less likely to molest us, entomologists seldom look us up, and if a chrysalis is now and then chopped in two by the fork, that is a casualty that can't be avoided; but to rob us of our food altogether, that is serious indeed, and I am afraid as moths who have pursued the same plan many centuries we cannot make a change, and come out two months earlier in the year. Habit has an astonishing power both with moths and men.—AN ANXIOUS ATROPOS.

ROYAL HORTICULTURAL SOCIETY.

AUGUST 19TH.

FRUIT COMMITTEE.—G. F. Wilson, Esq., F.R.S., in the chair. Messrs. Dobson & Sons, Isleworth, sent a brace of Cucumbers called Prince of Wales, a white-spined ribbed variety, which was not thought distinct from others in cultivation. Mr. James Chambers, of Springrove, Isleworth, also sent a seedling Cucumber, called Westlake Rival, of which the same opinion was expressed. Mr. A. Henderson, Shrubland, Walthamstow, sent a Kidney Bean, called Lady's Finger, which was considered too similar to the Case-knife to be regarded as distinct. It was recommended to be grown at Chiswick. Mr. Sweeting, gardener to T. G. Venn, Esq., Sneyd Park, Bristol, sent bunches of a seedling Vine, called Sneyd's Seedling. It is a large bunch, well shouldered. The berries are oval; the skin black, with a delicate bloom; the flesh firm, juicy, richly flavoured, and with a distinct Muscat flavour. It was considered a very valuable addition to the varieties of early Muscat-flavoured Grapes from its free-setting and early-bearing properties. It was awarded a first-class certificate. Messrs. Lane & Son, of Berkhamstead, sent a seedling Grape which was thought very favourably of by the Committee, and as it was not quite ripe the Committee desired to see it at a subsequent meeting. Mr. Clark, of Roehampton, sent a dish of Washington and Kirke's Plums.

Mr. Browne, gardener to Earl Howe, Gopsall, sent a box of excellent fruit of Peaches and Nectarines which had been gathered from trees moved last season, to which a cultural commendation was awarded. Mr. James Groom, Henham Gardens, Wangford, Suffolk, sent a Melon of very large size, which had been brought home from Africa by Sir Samuel Baker and presented to the Earl of Stradbroke. The fruit is 18 inches long and 9 inches in diameter, of a deep orange colour, the skin somewhat crumpled. The flesh is white, very tender, juicy, and sweet. The Committee considered it a very well-flavoured fruit for the size. Mr. F. Dancer, of Chiswick, brought fruit of Souvenir du Congrès Pear.

FLORAL COMMITTEE.—Dr. Denny in the chair. First-class certificates were awarded to Messrs. Paul & Son, of Cheshunt, for a very ornamental variety of *Cerasus Mahaleb* called pendula, having a graceful head of pendulous branches, and for a *Cornel* having the leaves edged pure white, and named *Cornus alba marginata*. Messrs. Paul also exhibited *Cerasus semperflorens pendula aurea* with yellowish green variegation, but as shown it was not effective.

From Mr. W. Chater, nurseryman, Saffron Walden, came a collection of Hollyhock blooms; also a number of seedlings, of which Mulberry Gem and Rose Supreme, answering in colour to their names, had first-class certificates. Messrs. Rollisson and Sons, of Tooting, sent a fine collection of cut *Phloxes*; and Mr. R. Dean, Ealing, *Phlox Miss Robertson* (Cocker & Son), with large white flowers, one of the early-flowering section which had been already certificated. Messrs. W. Hender & Son, Bedford Nursery, Plymouth, were commended for their strain of hybrid *Amaranthus*, with leaves exhibiting various shades of crimson, orange, yellow, and green.

A botanical certificate was granted to Mr. J. Croucher, gardener to J. Peacock, Esq., Hammermith, for a flowering plant of *Decabelone elegans*, having a campanulate flower with a yellowish ground nearly covered with purplish red dots and broken streaks. He also sent *Aloe Fraskii*, a South African species, with the base of the leaves clasping the stem like a cup. From Mr. J. W. Blackwood, gardener to F. Collinson, Esq., Herne Hill, came *Bonatea speciosa*, an old Orchid which, though slightly fragrant, has no claim as an ornamental plant. *Cheilanthes Bergiana*, a pretty Fern from the Cape, was sent by the same exhibitor, and had a first-class certificate. *Weigela Lavaliei*, with rather small dark red flowers freely produced,

was shown by Mr. Bull, of Chelsea, as also a cut bloom of a large and very double *Petunia*. Mr. May, gardener to J. S. Brockett, Esq., Muswell Hill, sent specimens of *Cattleya Dowiana* in great beauty; and Mr. J. Chambers, Westlake Nursery, Spring-grove, of the double-flowered *Lobelia pumila grandiflora*, forming dense little masses covered with bloom, together with *Pilea muscosa alba*, a neat little creeper with small light green leaves, and *Diplacus californicus* with ornamental buff and orange flowers. Messrs. Paul & Son contributed several stands of cut Roses.

LITTLE HEATH MELON.

I THINK the Little Heath Melon a very good variety for amateurs like myself. I do not know if there is any difficulty in growing Melons generally; but from the time I sowed the seed (April 24th) in a frame which I made up with dung for Cucumbers until July 31st, when I cut three, I had not a single drawback with them—no fly nor disease of any kind. I put in two plants in a two-light frame heated with dung, and they produced eleven fruit, eight or nine being of a good size, and very good. I should judge that this year was very favourable for flavour. Last year I also grew them without any trouble; but I always give regular attention, and certainly feel well rewarded by the results. Everyone who saw them admired the growth and fruit.—G. C.

DAHLIAS.

As an amateur Dahlia-grower for many years, it has often occurred to me why the flower should be thought so little of by the committees of provincial exhibitions. In many of the schedules the amount of prize is the same for a stand of Asters as a stand of Dahlias. The absurdity is great to those who know anything about the culture of the two flowers. The framers of these schedules cannot be aware of the great difference in the cost of purchase, the quantity of land required, the time and trouble in getting twenty-four good blooms of Dahlias as compared with a stand of Asters. To grow twenty-four Dahlias fit for competition with any chance of success, you must have at least 150 plants of the best new and old varieties: this will require ten or twelve perches of land heavily manured, four or five stakes to each plant, and each to be thoroughly mulched with cow dung; in dry seasons a man employed continually watering, shading, and tying; and continual watchfulness after the buds show colour to keep down grub and earwigs, else the labour is lost. Also, if there are one or two good new seedling flowers every year, you must purchase them at half a guinea a plant to keep pace with your neighbours, besides keeping up the old stock, losses of which will occur every winter with most amateurs. Now contrast the expense in the cultivation of the Aster: 3s. 6d. will purchase a packet of good seed, two or three perches of land will be sufficient room, then give plenty of old manure and attention, and you are one in the competition at the exhibition.

Referring to the prizes offered, here are two examples this season: A schedule sent me from Pontypool specifies, "German Asters, twelve blooms, first prize, 10s." "Dahlias, twelve blooms, first prize, 10s." Another is from one of the late homes of the Dahlia (the more surprising), where the rearing and growth of many a first-class Dahlia can be traced—I refer to Birmingham and the late Mr. Charles Perry. The schedule from Edgbaston, near Birmingham, specifies, "twelve Dahlias, 10s.; twelve Asters, 7s. 6d.; twelve Phlox, 10s., first prizes." This lad encouragement of the Dahlia now that it has arrived at its greatest perfection rather inclines one to give up its cultivation—a bobby I have enjoyed for twenty years.—THOMAS HOBBS, Bristol.

THE KITCHEN GARDEN.—No. 11.

A WELL-MADE walk kept in good condition is an ornament to any garden, and for appearance only I would give the preference to those made of well-coloured and good binding gravel. True, the labour of keeping gravel walks in order is considerable, but there is a satisfaction afterwards which compensates for it. However, in some parts of the country gravel is out of the question, and some other material must be used.

The next best kind of walks, probably, are those made of asphalt or tar, gravel or small stones, coal ashes, and sand. They are made in two ways. The first I shall describe is the preferable one. It involves no great excavation for drainage,

but if the soil is good some of it may be taken out and anything else substituted, covering it over with fine material; beat this down firm and put the walk into shape, making it high enough, but allowing for the thickness of mixture that is to go on. Now collect a quantity of coal ashes and sift them fine, also coarse road or drift sand and lime rubbish. All these should be sifted, and kept under cover and dry. Mix the three together in equal proportions; take a small quantity at a time, say about three barrowfuls, lay it in a heap and make a hole in the middle, into which pour a quantity of boiling tar; add enough, and mix well together till it is as stiff as mortar. Take this to the walk and put it on carefully, not less than 3 inches thick; many put it on 4, and some as much as 6 inches thick. The walk is shaped out properly while it is soft and pliable. Before it hardens a good sprinkling of fine ground stone or sifted gravel of a lightish colour, and some sand with it, should be strewed evenly over the walk, and a light roller passed over it to press it well into the tar. After the surface is a little more hardened, but before it is too much so, a heavier roller should be passed over it several times, which will solidify the whole. This addition of light stone and sand is to improve the appearance of the walk, of which the surface would otherwise be very dark, which I consider an objection. All this work should be done in dry weather, and the ground rendered very firm before commencing. In a few hours the whole mass will be pretty well set and quite waterproof.

The next method is a more expeditious one, though I think less substantial, and will not bear comparison with the former, yet walks done in this way last a considerable time, and the method is therefore convenient to some persons. It is this: First shape out the walk, and put all the material on as described in the former mode, pour the tar on cold over the whole surface, regulate it with a stiff broom, or, what is better, a small board on the end of a pole in the form of a rake. Put on a sufficient quantity of tar to penetrate the whole, and let it soak in, taking care that it is evenly distributed. Add sand and fine gravel as for the first method, and in other respects treat similarly. Whichever mode is adopted no large stones must be permitted on the surface, as they would work out again and leave holes in the walks; and even the fine stones must only be thick enough to allow them to be embedded properly in the tar. Walks made after the last method are liable to break-up in flakes, especially if pressed by heavy loads frequently at one and the same place.

In walks of this description there will be the surface-water to be disposed of more than in those made of gravel, though it is necessary to provide for carrying it off any walk. In a previous article I mentioned about marking the place where the drains run, so that their connections may be made good to take off the surface water; this should be done previous to making the walks; as there is likely to be some washings of soil and other rubbish to dispose of, and which ought not to be allowed to go into the drains, to avoid this it will be necessary to dig-out a small hole, say 15 or 18 inches square at the top, and 2 feet or more in depth, at every junction with the under drain. Let the drain for the water go out at the top of this hole, and as the latter becomes full the water can run off, leaving the sediment behind. Now it is hardly necessary for me to say that after heavy showers, and at other times also, these holes should be cleaned out, and all that would otherwise enter the drains and soon stop them up should be taken away. Gratings of iron should be provided and placed over each hole, set-in firmly in a frame, which may be embedded in the asphalt as the work of making the walk goes on. I prefer the convex form of grating; it is not so liable to get stopped-up by the accumulation of rubbish as the opposite shape.—THOMAS RECORD.

EARLY BEATRICE PEACH.

THE first ripe fruit of this excellent Peach was gathered from a tree on an open wall in the second week of July. The tree is young, and did not yield more than one good dish of fruit, all of which were ready a few days later; then came an interval of nearly three weeks before the first fruit of Rivers' Early York were fit for table. The prevalence of dull showery weather will in some measure account for the tardy ripening of Early York. I hope to form a connecting link between it and Early Beatrice by means of Early Rivers, which will come into bearing next season. Thanks to the coping boards, I hope eventually to have a full supply of Peaches with a tolerable degree of certainty from trees on the open walls, from the

second week in July till the end of September. The list of kinds upon which I depend is—Rivers' Early Beatrice, Early Rivers, Rivers' Early York, Rivers' Dr. Hogg, Grosse Mignonne, Noblesse, Royal George, Barrington, Rivers' Lord Palmerston, Walburton Admirable. These are arranged in the order of ripening, but I am by no means certain that this selection of the kinds I have actually in cultivation might not be improved by the addition of two or three more of the Rivers strain. Early Alfred, for instance, bears an excellent character, notably for flavour; Alexandra Noblesse, too, I am inclined to think good. Can anyone assist me? I invite discussion, because I feel assured that a more general knowledge of Mr. Rivers' numerous seedlings, both of Peaches and other fruits, will prove conducive to the general good. I have several of these among an extensive collection of fruit of all kinds under my care, and can confidently assert that those kinds which have already come into bearing, tend to the conviction that Mr. Rivers' descriptions are most reliable and trustworthy, and they may be depended upon as the calm and honest deductions of a veteran practitioner.—EDWARD LUCKNURST.

STAG'S-HEAD FERN.

Your correspondent "BETA," page 144, mentions that a Fern so called grows on the limestone formations, what is the botanical name of the Fern? Does not "BETA" mean *Lycopodium clavatum*, common Club Moss? This I have met with on the mountain slopes in the Isle of Man, where it grows luxuriantly, trailing on the turf. I brought some fine specimens home; a portion I planted in an outdoor fernery, the remainder in pots in a cool greenhouse (I did not try a Wardian case); but neither existed much longer than about twelve months. If "BETA's" Stag's-head Fern is so hardy and easily cultivated, possibly he has discovered something that novices like myself have not seen or heard of.—F. P.

[The "Stag's-head Fern" cannot be a *Platyserium*. If he will send us a specimen we may be able to identify it.—EDS.]

DESTROYING WASPS.

AMONGST the many modes of destroying wasps' nests described by your contributors, I do not notice a very convenient one that has been adopted at various places with as fair a share of success as any other mode that I have ever seen tried. It is simply a squib composed of dry gunpowder and flowers of sulphur, broken up fine, mixed in the proportion of about three of the latter to one of the former. The squib is made by wrapping a piece of common brown paper round a stick about as thick as the forefinger, the paper being three or four ply thick, when it is tied with string or matting, and being drawn off presents a sort of paper tube. One end is afterwards closely tied up, and the tube is then filled with the mixture, pressing it tightly in with a stick, and then tying the other end. A squib of 3 or 4 inches long is generally sufficient to stifle a wasps' nest for a reasonable length of time. It burns with a searching smoke for at least half a minute, and is easily lighted by holding the end to a candle. Of course, digging out the nest is necessary, and I do not know of any effectual way of destroying wasps without digging out.

Placing offensive-smelling substances at the mouth of the hole is an old-fashioned mode, as I have seen it adopted more than twenty years ago with a ball of loose tow or something of that kind soaked in turpentine, and put into the mouth of the hole, and sometimes the spirit has been poured into the hole, saturating the soil so as to give off deadly fumes to the wasps attempting to pass it; but they sometimes succeed in digging out for themselves another outlet. Other substances, as coal tar and muriatic acid, were recommended before paraffin became common, but I have most faith in some process in which digging-out forms a part, and I have also most confidence in the use of gunpowder as a stupefying agent. I may add that I have seen it often enough used alone in a wetted state, and made up into the form of a cigar; but it is more costly than when mixed with brimstone, and requires some little practice to wet it up into the proper condition to burn as long a time as possible, for if too wet it will not burn at all, and if not wet enough goes off too soon, whereas the squib rarely or never fails, and is in every way convenient.

Although we had quite the average number of queen wasps in the spring, I have since met with one but very rarely up to the time I write (August 10th); this is unusual, for we generally find them more or less abundant as the Gooseberries

ripen, whereas this year this fruit will be all gone ere wasps make an appearance. Another maxim seems also not to apply this season, that a good Plum year is sure to bring plenty of wasps. This season the crop of Plums is tolerably good around here. A near neighbour of mine gathered upwards of three hundred bushels last week—I believe all or nearly so of Early Orleans—and yet I do not hear of a single wasp. That we may have them yet is very probable, but that they are not likely to be so numerous as they sometimes are is equally certain. It is, however, somewhat strange that they are not numerous this season, as it has been unusually dry, and although we have been visited with frequent and sudden changes of temperature, there has been no lack of hot days, yet amongst the many enemies we have had to encounter, wasps have not been one. If they fail to appear at all, the circumstance will cause no regret, for although they, as well as most other things, have a useful mission, there are few amongst us willing to give them credit for anything but mischief, and we never hear of that very useful and praiseworthy Society which is instituted to prevent cruelty to animals ever throwing its shield over wasps and snakes, against which we all wage war.—J. ROBSON.

THE BEAUTIFUL AND USEFUL INSECTS OF OUR GARDENS.—No. 23.

It does not require a large amount of philosophy to make the fact obvious to us, that individuals of the genus *Homo* most remarkable for beauty or for size seldom possess in the like degree either wit or wisdom. The "Admirable Crichtons" of our race are rare; and we look upon it as a matter of course, with a few exceptions, that those who possess certain advantages or excellencies lack others which their neighbours boast of. Thus things are equalised; and though here and there we find a man head and shoulders above those of the race around him, like Saul of old, yet through all human diversity there is generally traceable a weak point or deficiency which prevents, or ought to prevent, each one from unduly exalting himself at his neighbour's expense. Curiously enough, matters are very much the same in the insect world. The handsomest, rarest, largest insects are not at all of necessity the most sagacious and the most active. Look at the Lepidopterous order for instance, comprehending the butterflies and moths. Throughout that division of insects we find the wings clothed with scales, giving bright and varied tints, surpassing what is displayed by most of the species belonging to the other orders, yet that marvellous instinct, almost akin to reason, which has rendered some tribes of insects so memorable, is less noticeable among the butterflies and moths. We must seek it in its potency in the dwellings of the bee and the ant, or study it in the despised gnat or beetle.

I have been particularly struck with this fact in rearing the Hawk Moths, where we have both beauty and size. The caterpillars of several of these seem exceedingly dull and stupid. Should the pod, plant, or twig on which they are feeding wither-up, they do not appear to have always sense enough to quit it and start on an exploration to obtain a fresh supply. In a breeding-cage, though green twigs may be placed almost touching the heads of some of these, such as the Poplar and the Eyed Hawk Moth, they still hold on the dry or well-nigh bare twigs, unless removed from them. Nor is this an easy thing to do, the grip of one of these caterpillars being exceedingly firm, no doubt given as a natural protection against their being wafted away by the wind against their will; but still one would suppose they would have the sense to loosen their hold rather than suffer injury. It is not so, however, and more than once, in attempts to lift a Hawk Moth caterpillar from a twig, I have seen the body torn from the claspers, which remained attached to the object, and the creature thus perished through what might be called a perversion of instinct. Then, again, when a number are kept in the same box, they in their wanderings about, though they may be well supplied with food, are apt to fall to and nibble the curved horns with one of which the back of each individual is adorned. As there is no proof that in such cases the individuals have quarrelled, and, like the Kilkenny cats, resolved not to spare each other's tails, but begin the onslaught by seizing these, it seems rather like a foolish sort of experiment on a new food, scarcely likely to be very palatable. Nor do these caterpillars when adult show the judgment we might suppose they would, in the selection of a place for pupation. The Eyed Hawk caterpillar which often devours the Willow

leaves on trees situate in marshy land, may be seen entering clayey earth, which, becoming hard, leads ultimately to the death of the insect. Smaller species are often to be observed crawling about seeking for earth to their mind, but this does not usually suit a gentleman of the more elevated race of the Hawk-Moths.

Just about this time, on Privet, Lilac, Ash, and occasionally on wild Apple or Plum, feeds the caterpillar of the Privet Hawk Moth, *Sphinx Ligustri* (see figs. 48, 49, and 50), which takes its name from its more common food plant, according to a plan once followed by entomologists, which has caused some confusion. Often as this species has formed a subject for comment, it is yet hardly fair to exclude it from the present series of papers, its beauty being noteworthy both in the larval and imago states. It is frequently found on the borders of the garden domain, if not within its boundaries; and though the caterpillars lay bare a few twigs in the months of August and September, the species cannot be reckoned as a garden foe. I opine it has rather aristocratic tastes, as year by year I have hardly ever failed to find the caterpillars, when I sought them, on the hedges environing the central spaces in our Belgravian squares. Tradesmen's boys occasionally parade one upon the top of a stick, but as a rule, particularly when it is getting large, the Privet Hawk caterpillar keeps itself well concealed in the day, feeding chiefly at night and in the early morning, and then retiring to the thicker places in the tree or bush. Some

tongue with which the head is furnished is kept ready for action as the insect passes from flower to flower. Those caterpillars that have been fed-up on the leaves of the Lilac have no chance when they emerge as moths the following year, of tasting the honey of that tree, since the blossom is over before the Privet Hawk Moth is out of the chrysalis; but about the flowers of the Privet in June and July the moths float with delight, now and then careering-off to visit some flower bed.

The eggs, which are large, yet not easy to find, having much the colour of the Privet leaf, are laid in those months, and the young caterpillars emerge in a few weeks. The seven stripes with which the body is marked are not so obvious to the eye at first, and the skin of the caterpillar has rather a wrinkled appearance, which disappears as it grows older.

After four successive molts during the course of seven or eight weeks, the Privet Hawk caterpillar exhibits itself in its last garb. The surface of the body is now a light green, the head being of the same colour, with a band of black encircling it; the extremity showing the usual horn of the tribe, which is now black above and yellow beneath. The seven stripes on each side are lilac and white, at least the latter colour is not disputed, but the former has also been called blue, or purplish blue, violet, and "mauve" by the ladies. What is known as the "sphinx" attitude is seen to perfection in this caterpillar when it happens to be reposing on a twig—that is, the claspers and part of the body are firmly at rest on the twig, though

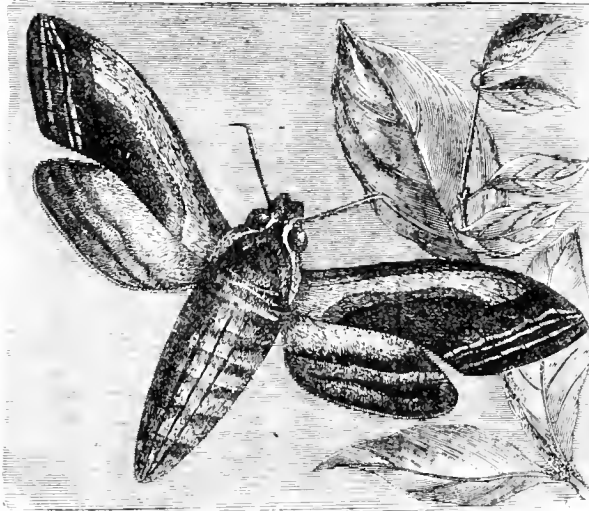


Fig. 48.—Privet Hawk Moth (*Sphinx Ligustri*).

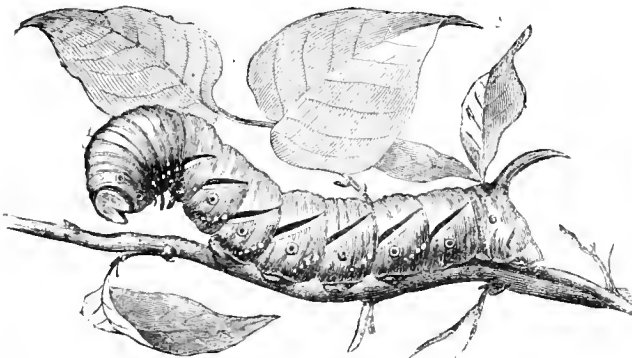


Fig. 49.—Privet Hawk Moth, larva.

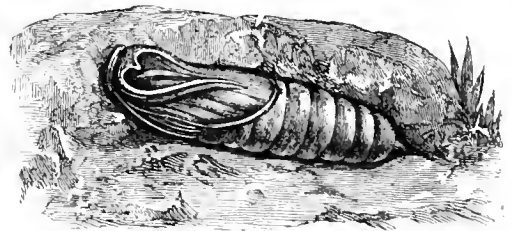


Fig. 50.—Privet Hawk Moth, pupa.

of its brethren, as for example, the Unicorn Hawk, descend to the earth or even enter it, and come forth to banquet at sunset or soon after. I have not ascertained that this caterpillar has received any special designation from the cockneys, though occurring in various parts of London. In some of the midland counties all large caterpillars of the Hawk Moth are called locusta, or, more exactly, "lokus." How this strange misappropriation of a name arose is not easily explainable.

The Privet Hawk Moth has wings about 4 inches across when stretched-out fully, and the nervures are remarkably strong, enabling the insect to take long and rapid flights, and from the size of the species, moths when on the wing high in air are sometimes mistaken for bats or small birds. The fore wings are grey and brown, with a rich tint of rose at the base; the hind pair of wings have a rosy pink as their ground colour, crossed by three bands of dark brown. The body has very distinctly marked bands of pink and black, and it is stout and heavy. In the dusk of evening the eyes of this moth are seen to sparkle like two balls of fire, while the long proboscis or

the head, legs, and the first segments of the body are raised in the air. Hence, as the story goes, the gardener of Roessel, the German entomologist, was greatly disgusted with these caterpillars, he considering the posture as a proof of self-conceit and vanity! The object is probably the deceiving of birds, which might otherwise carry-off this caterpillar as a large but choice morsel. That they do occasionally pick it up, I have had positive proof. Should anyone touch a caterpillar gently while thus in repose, it will be found to shake itself to and fro as if resenting the affront; should the assault be more violent most generally the creature falls suddenly to the ground. Mr. Wood tells a droll story, not much to the credit of a University man, who asserted that a Privet Hawk caterpillar assaulted a lady and bit a piece of flesh out of her arm! Certainly it is well provided with jaws, but it shows no desire even if irritated to seize the human hand; and, indeed, from the sideway manner in which the jaws of a caterpillar cut, it could not easily do so were it disposed. There are some caterpillars, several of them belonging to the family of Pseudo-Bombyces, which exhibit

such grotesque shapes, that do open the jaws and attempt to bite the skin. This has never been noted as the habit of the species before us.

Having reached maturity, the caterpillars of this moth lose their bright tints, cease to eat, and, becoming of a livid hue, they excavate a chamber in the earth, the interior of which is beautifully smoothed-off so that no rough particles of soil can annoy the chrysalis. The case or shell in which the proboscis is enclosed is distinctly seen folded round on the breast of the chrysalis. In some years, instead of the emergence taking place during the following season, the chrysalis stage lasts on through another summer and winter, the moth coming out in the second year. There have—so some report—been instances where it has been the third year; but even this is surpassed by the small Egger Moth, which has been known to pass six winters in a state of dormancy.

I will end this paper with a few words on a moth of very different size and appearance, which is produced from a caterpillar which feeds on the Hawthorn, and the perfect insect is therefore often seen flying about gardens where the Hawthorn grows in the vicinity. In the day a tap of a stick given at intervals along a Hawthorn hedge during August will bring out one after another of these, each falling like a snowflake amongst the grass. This is popularly known as the Chinese Character (*Cilix spinula*), and the beauty of it lies especially in the silvery scales which are arranged along the wing-rays, and which have been thought to bear a resemblance to Chinese letters or characters. But there is also much elegance in the greyish band and spots as they are set out on the pure white of the wings. All the wings are thickly clad with scales, and when at rest the moth folds these over the body in a roof-like manner. The caterpillar is of a singular shape, having a double row of small humps or warts along the back, and the pointed head is cleft on the crown. At the tail there is a spike or point, which the caterpillar lifts in the air as it crawls, much in the fashion of the caterpillar of the Puss Moth. When it forms the cocoon it usually fastens on the outside a leaf, or a part of one, in such a way as to give concealment, and then weaves behind that a close abode of silk, in which it only continues two or three weeks. The species has been seen in all parts of England.—J. R. S. C.

LEEK CULTURE—CABBAGES CLUBBING.

The following, in answer to "AGRICOLA," may be useful to other readers as well.

To grow Leeks to a full size the highest cultivation must be given. Instead of planting them out on a border of rich soil, as many do, and with good results, for "AGRICOLA'S" special purpose I would advise him to make preparation for them the same as for Celery, and grow either one or two rows in a trench. For one row the trench will do about 15 inches wide, but for two it should be not less than 18 inches in width; and in either case not less than a foot in depth, filled up with good substantial manure, afterwards covered over with about three inches of soil. First of all, however, fully 6 inches of manure ought to be dug-in at the bottom of the trench, as the Leek is a vigorous and deep-rooting plant. It also requires full time to develop itself; therefore the seed ought to be sown by the middle of March on a bed of deeply-worked rich soil. When the plants are 6 or 8 inches high select the best of them and trim back the long weak roots a little, cut the loose leaves off, and dibble into the trench—not deep, but just sufficient to hold the plant in its place; water them every day, if the weather is dry, until they have established themselves, and once or twice a-week afterwards according to the state of the weather. When the soil is dry enough, after every second watering it should be stirred to promote the free growth of the plant, and to keep down weeds. In about a month after planting another 2 inches of soil may be added to the surface, and again once or twice afterwards; and when they have nearly attained their full growth the plants may with advantage be earthed-up a little.

By the above treatment "AGRICOLA" will perceive that the plants will produce enormous leaves as well as large stems; but in order to increase the size of the latter he must keep the large leaves trimmed back to half their length according as new ones are produced, and I doubt not he will realise what he desires.

In reply to "AGRICOLA'S" second question, I think his system is as good as any other, for I have never known any remedy prove effectual for a series of years. For years we have

been little troubled with the disease called clubbing, and this season, so far, I have not seen one plant affected by it. I rely as much upon cultivation as I do on a remedy; and if I had a sandy loamy soil I should apply manure in lieu of salt, but with lime and soot, and that, too, in the bed where the seed is sown, because it is there that the plants are first attacked. The following is my practice: Prepare the seed bed by working the soil fully a spit deep, adding rich half-decomposed manure and lime about 4 inches under the surface, and when raking this down also work-in a quantity of quicklime and soot in equal proportions. Sow the seed and rake it in. The lime and soot act as a preventive to the attack of the insect, and the manure from the time the seeds are up acts as a stimulant for the plants to grow out of the way of its ravages. Again, we see more of this clubbing in dry summers than in wet ones: therefore from the time the seedlings are up do not allow the soil to become too dry: the frequent waterings cause the insect to leave the ground, as it does not thrive in wet places. The next thing I do is to prick-out the plants also in well-prepared soil, and both at this moving and when the plants are transferred to their final quarters each is examined and the warty substance cut off: the plant is none the worse, and is seldom attacked again. Should any affected plants escape notice at the time of planting-out they may soon be discovered by their pallid appearance and by flagging under the sun; then by moving away the soil and cutting off the protuberance the plant recovers if supplied with plenty of water. I ought to say that at every transplanting lime and soot are worked-in with the soil.—THOMAS RECORD.

SEEDLING BRIAR STOCKS.

In reply to "P.," page 138, seedling Briars can be raised from English seed, but the French seeds are much better, and they can be purchased in Paris. Briars are extensively cultivated in France for stocks by the French rosarians. I would recommend "P." to purchase the stocks in the season. I usually get mine over in December. Any amateur requiring either stocks or plants can be supplied with any quantity by a Rose-grower with whom I am acquainted.—JOHN MAYO, *Oxford*.

MELONS SPLITTING.

THE same rational method which "VIRIS" recommends to prevent Grapes cracking, a plan I know to be effectual, is equally useful in arresting the splitting of Melons. In houses it is comparatively easy to prevent Melons flying to pieces by withholding water soon enough, but it is not so easy to do so in the case of ordinary frame and manure-bed culture. Towards the end of the season the roots are apt to pass into the then-decayed manure of the bed, and the result is a splitting of the fruit. This is perhaps more common than the world is aware of, and numbers of Melons are every year thrown away "on the quiet," because they are "not fit to send in." At this season splitting often follows the cutting of a few fruit from each plant, those left having a double influx of sap to deal with, and give way under the pressure. Cut the stem half through, or even the fruitstalk, when there are signs of splitting, and the evil will be averted.—CUCUMIS MELO.

ROSES AT WORCESTER.

I AM going to add an appendix to "D.," of Deal's, interesting account of the Cheshunt Roses by saying a few words with regard to Roses at Mr. Smith's at Worcester, where "D." and I went after the Birmingham Show on the 7th of July, but whence "D." had to depart before we had half gone through the Roses there. I cannot, and do not pretend, to give an adequate description either of the Roses or the nurseries, still less of Mr. Richard Smith's kindness and hospitality. I can only say that meeting Mr. Smith for the first time at Birmingham when the Judges and Committee were luncheon together, he pressed me most hospitably to come on to Worcester that night to stay with him and see his nurseries the next day, and that I was by no means prepared to see the state of perfection to which the whole of the arrangements of the large nursery grounds, propagating pits, vineries, orchard houses, &c., had been carried.

I had not time to make many notes, but I went carefully over about seven or eight acres of Roses; one-third on Briar, about two-thirds on Manetti, at a rough guess. I can quite endorse "D.'s" opinions about the new Roses of 1872; there are none like Etienne Levet or François Michelon of the pre-

vious year. Madame Lacharme seemed to me the best, and I am glad to find that "D." can so confidently state it is a good second bloomer. The best of the 1872 Roses were Pierre Seletsky, Mrs. Veitch and Marius Cote, both of them somewhat alike, of the Antoine Ducher style, and Reine Victoria, a soft pink, but chiefly good for pillars, as it is a Bourbon. I thought Claude Levet, Pierre Seletsky, MacMahon, Madame Moreau (the second, by the way, of this name), all either poor or doubtful; and even after making allowance for the dry season and the hot suns which were scorching Roses at that time, I do not believe any Rose of 1872, except Madame Lacharme, will last long in nursery lists.

Of older kinds—Abbé Brammerel, good as a garden Rose, is far too flat and rough for exhibition; André Dunand was blooming very freely; Baronne Louis Uxkull good, but I think it is too much extolled; Charlotte Corday and Charles Margottin were doing well, so were Henri Pages and Louise Corbet. Many of the whites of the Mdlle. Bonnaire type are very much alike, as Madame Noman, Madame Liabaud, Madame Freeman, and Virginal. The whites, in fact, seem divided into two types: one like Boule de Neige, Baronne de Maynard, and Madame Gustave Bonnet of the Noisette type, and the other of the H.P. type, inclined to a bluish centre, as Virginal. Richard Wallace and President Thiers disappointed me; the first was too hard in the bud, the second not so good as Countess of Oxford, which it somewhat resembles. Marquise de Mortemart was exceedingly pretty, though too flat, but the freshness of the newly-opening buds very beautiful. No Rose seems improving much more than Marquise de Castellane; it is good in habit and constitution, and will be sure to firmly establish itself with such well-known Roses as Charles Lefebvre, Alfred Colomb, Marie Baumann, La France, &c. Among very dark ones, Monsieur de Pontbrian was promising, with a very fiery centre, and Maxime de la Rocheterie would do were it not so flat.

These few remarks on Roses are very desultory, it is to be feared. I am glad "D." speaks so highly of S. Reynolds Hore. I have hitherto been afraid there was not sufficient size or substance for one to be called after the Rose king. Annie Luxton deserves all the praise he has given it; but I doubt if Bessie Johnson is as good as Abel Grand, from which it is a sport, and to which it has a tendency to revert.

The Roses at Mr. Smith's are all pinched back when making their first growth from the bud, so as to secure good and symmetrical heads; and in spite of the adverse season, the plants were looking healthy and well. The old-established sorts, as Gloire de Dijon, Maréchal Niel, Alfred Colomb, John Hopper, &c., were grown in great quantities, and the number of rows of each variety formed a test of public opinion with regard to them.

I cannot understand on what grounds Mr. Radclyffe praises up Edward Morren so much. I know it has occasionally a good bloom, but it is a rare exception; it is generally rough and coarse. Nor, again, why he should in 1866 designate Felix Genero and Madame Margottin first-rate, and call Annie Wood, Black Prince, Monsieur Noman, Princess Mary of Cambridge very good, as though inferior to the other two, whereas any one of the last four is better than the other two. I know he gave his flat once in favour of Felix Genero, and I ventured to doubt it, since which Felix Genero is always brought to the front by Mr. Radclyffe in any list he gives. I see occasionally good blooms, and it is useful in a stand as a contrast to others. What is there, again, to recommend in Madame Masson? Dull in colour, coarse, and flat. Why, again, omit such Roses as La France and Marie Baumann, and put in Madame Creyton and Thyra Hammerick? Well, I suppose opinions about Roses always will differ, but when we have Roses good in form and shape and colour, we do not want to go back to old flat, uneven, and ragged Roses, nor to adopt newer ones like Maxime de la Rocheterie, Vicomtesse de Vezins, and Abbé Brammerel, even though they be good in colour.

While on the subject of Roses, I do not think Mr. Camm need be afraid of quantity ousting quality at our English Rose shows. Masses of Roses shown as at a French show (as I saw last year, brought in tumbled together in hampers and baskets, and put into lumps of wet clay and rows of claret bottles) will not suit the English taste. We want perfection in bloom, and good opportunity to compare the varieties.

I can sympathise with Mr. Camm in the loss of his Peaches. Naturally I think them a good fruit, worth all the pains to cultivate. I recommend him a 2-feet glass coping and Nottingham net strained in front well off the wall, and kept on till the first week in June. The same treatment, with plenty of

guano water at the root, suits Maréchal Niel to perfection, and I hope that his clerical friends may once more pay him their annual visit under the united influence of Peaches and Roses.

I should have liked to have added more about Mr. Smith's nurseries, but they have already been well described in your pages. Suffice it to say that they will well repay a visit by anyone who is interested in almost any branch of horticulture, but more especially, I might say, they excel in fruit trees, there being nearly fifty acres devoted to trained trees, bushes, espaliers, &c., of all the best kinds of Apples, Pears, Plums, Peaches, Neectarines, and houses full of young Vines, &c. Mr. Richard Smith, too, has collected a most interesting variety of Oaks, and has also a wonderful collection of Acers of all forms and colour, including all the newer varieties of Japanese Maples. The nurseries, 150 to 160 acres in extent, are well and fully stocked with young plants from one end to another, and the long centre avenue planted with every variety of evergreen, and dotted with interesting deciduous shrubs, is quite unique in its way. However, it is not my intention, as I said to begin with, to attempt to give any adequate description of the nurseries. I have only written these few notes, being induced to do so by the remarks made on Roses in the last number of your Journal, as, though mine are desultory, I thought they might interest some of your readers. —C. P. P.

MADAME LACHARME ROSE.

I AM delighted to read in "our Journal" this week that my friend "D., Deal," thinks so highly of this Rose. I had determined not to bud a single stock with it this year, but as I have all my Manettis to work, I will give Madame Lacharme another trial. I speak, as my friend does, from what I have seen here and elsewhere. Neither in my own garden nor in the nurseries of Messrs. Cranston, Keynes, and Walters have I seen a good bloom of this variety, nor indeed has it been my good fortune to see one at any Rose show. With regard to Souvenir de John Gould Veitch, I saw some blooms at Salisbury which delighted me. The Rose is rather like Charles Lefebvre, but not of so velvety a texture. It reminded me very much of Mr. Paul's best, in my opinion, novelty—Wilson Saunders. But we require to work a new Rose, which has a good reputation, for a season or two before we can pronounce any judgment worth recording.

I am glad to see that "D., Deal," agrees with me in condemning the remainder of last year's novelties. I am surprised at Mr. Radclyffe's sticking to such Roses as Baronne Prévost, William Griffiths, Alexandrine Bachmeteff, and a host of other utterly useless varieties. Year after year he writes to you recommending Baron Chaurand as one of the very best dark Roses, and yet I can confidently say that I have never seen that Rose exhibited, and I do not know of a single large grower who cultivates it. Allow me to congratulate Mr. Radclyffe on giving up Madame Chirard. I went through his interesting list, each second expecting to meet the Madame, but she appears to have disappeared at last even from the garden of her one-solitary though staunch friend.

If such Roses as I have named above, and some others mentioned in Mr. Radclyffe's letter, as Pierre Seletsky, Madame Louise Carique, Madame Campbell, and Baronne Pelletan de Kinkelin are "the living dogs," then I prefer "the dead lions." There is one thing to be said about these living dogs—I know of no kennels whence they can be purchased. —JOHN B. M. CAMM.

THE FLOR DE ISABEL.—BARKERIA SPECTABILIS.

THIS genus contains but few species, but all of them are beautiful; in general appearance they resemble Epidendrums, and, indeed, saving the broadly-winged column, there is little to separate them from that genus.

The plant in question, as well as the other species which belong to this family, do not, I am sorry to say, receive that amount of attention at the hands of the amateur Orchid-grower which they merit. Not that I would infer that they are troublesome members, and require an extra amount of care, but one sees them really so seldom, even in collections devoted to "cool Orchids," to which Barkerias essentially belong, that it becomes quite a matter of surprise. True, these plants must be grown in a particular manner; again, they are deciduous, which has no doubt led in a great measure to their neglect, for without leaves they are not peculiarly ornamental.

but such reasons should not be sufficient to expel them from the cool Orchid house.

Barkerias should be grown upon pieces of rough wood, or, what is better perhaps, virgin cork, and they should be securely

fastened with copper wire until they fix themselves by their roots. There must not be any moss or peat used to cover the roots, as I have found they thrive much better without it. The roots are thick and fleshy, and whilst some attach them-



Fig. 51.—*BARKERIA SPECTABILIS*.

selves to the wood, others grow straight down, and with their large mouths drink-up ravenously the moisture from the atmosphere. It must, therefore, be well remembered by those who would succeed in their cultivation, that they require during the growing season an abundant supply of moisture in the atmosphere, and that although unattractive during the resting time, they must not be neglected, for if allowed to shrivel they will be sure to break weakly, and probably there will be no bloom to gladden the heart of the possessor. The coolest

house suits them best; indeed, they will melt away if subjected to great heat; and although they like abundance of air, a densely shaded situation is their delight.

The species which our figure is intended to represent deserves a place in every collection however small, whilst those who grow Orchids for exhibition purposes will find a good plant of it by no means a despicable object upon the table or stage when set-up for competition.

It is an erect-growing species, attaining a height of 9 to

12 inches, producing its leaves upon the stem in a distichous manner; scape terminal, erect, bearing from six to ten of its beautiful flowers, which are in the sepals and petals soft pink or lilac; lip of the same colour, but in addition more or less dotted and spotted with reddish crimson. It blooms during June, July, and August, and continues long in beauty if the blooms do not get wetted with water from the syringe. Native of Guatemala.—EXPERTO CREDE.

THE HERBARIUM.

HAVING read with much interest the article on the Herbarium in your Journal of the 30th ult., will you allow me to offer some additional remarks thereon? The eight new bricks proposed to be used as weights would, no doubt, be effective, but very cumbersome and clumsy, as frequent shifting is required; and the old newspapers are not so porous, and consequently do not absorb the moisture from the plants so quickly as the botanical paper commonly sold, and some expressly prepared, for the purpose. I much prefer, after many years' practical experience, two boards not so wide as 12 inches, and when the plants and papers are arranged the whole to be bound round with two leathern straps about the same as are used for travelling cloaks, as by means of the buckles with a little care a good pressure may be secured; and the apparatus altogether is much more portable, which is often a great consideration, and is very easily opened by merely unfastening the straps. If the straps are changed so as to be buckled the reverse of each other, they can, after being fastened, be strained tighter still. When the plants have been changed, the paper should be well dried in the sun or by a fire.—EDWARD COPLAND.

SALE OF THE MEADOWFRANK ORCHIDS.—The third and concluding sale of the Orchids which formed the grand collection of Thomas Dawson, Esq., of Meadowbank, near Glasgow, took place at Mr. Stevens's rooms on the 5th, 6th, and 7th inst., when the following prices were realised—viz., *Odontoglossum Alexandræ niveum*, with seven matured and two young growths, £6; *O. hystrix superbum*, with nine matured and two strong young growths, £6 6s.; *Oncidium cruentum magnificum*, with eleven matured and two young growths, with two flower stems, £8 10s.; *Vanda cærulea superba*, strong plant with twelve leaves, £7 17s. 6d.; *Oncidium cruentum Peleanum*, said to be the only plant in the country of the variety, four matured and one young growth, £6 10s.; *Zygopetalum maxillare Andersonii*, with eight fine pseudobulbs, very rich and brilliant in the violet colour, £6 10s.; *Cattleya speciosissima gigantea*, with seventeen fine pseudobulbs, £6; *Vanda Batemanni gigantea*, said to be the largest and finest specimen of the species in Europe—plant over 10 feet high, with four strong breaks, each a fine plant in itself, £13 13s.; *Angraecum eburneum superbum*, largest and best variety, plant with seventeen leaves and two breaks, each six to seven-leaved, £9 9s.; *Lælia anperbiens*, with fifty matured bulbs and several young growths, £9 19s. 6d.; *Odontoglossum Alexandræ*, nearly pure white variety, with twenty matured and four young growths, £7; *Odontoglossum radiatum majus*, extra fine plant, with eight matured and two young growths, £7 10s.; *Epidendrum vitellinum magnificum*, with thirty pseudobulbs, £6 6s.; *Cypripedium Fairrieanum*, plant with eight growths, fine and vigorous, £6 6s.; *Masdevallia Harryana*, Bull's blood variety of the collectors, £13 2s. 6d.; *Dendrobium cærulescens*, fine specimen, with two hundred pseudobulbs, £7 7s.; *Lælia Tuckeri*, £14 14s.; *Oncidium cruentum superbum*, with twenty matured pseudobulbs and four young growths, £8; *Lælia anceps gigantea*, £7 7s.; *Lælia anceps grandiflora*, £7; *Cattleya Trianae magnifica*, £7 17s. 6d.; *Angraecum eburneum superbum*, £11. In addition to the Orchids, fine plants of *Anthurium Scherzerianum* brought £9 9s., £9 19s. 6d., and £11 11s. The total amount realised was upwards of £1500, that at the previous sale being £3016 6s.

DOINGS OF THE LAST AND PRESENT WEEKS.

HARDY FRUIT GARDEN.

THE season for gathering the main crops of Apples and Pears is now at hand; and it is not enough that the fruit is brought to perfection on the trees, it must also be carefully gathered and stored. The fruit-cultivator, who takes as much interest in studying the formation and texture of the many varieties of Apples and Pears as the ardent Orchid-lover or the enthusiastic florist in admiring and noting the distinguishing features of their

respective pets, has quite as many cultural difficulties to overcome before success crown his efforts. The insect enemies of the Apple and Pear are numerous, and constant watchfulness is necessary from the time the buds open until the fruit is gathered. A maggot similar to that which feeds upon the Rose buds attacks the fruit buds as they are opening: it must be destroyed by hand-picking. The larvae of the Lackey moth, which congregate together and form a tent-like covering to protect themselves from inclement weather, whence they issue forth to their work of destruction, must be disposed of in the same manner. In hot dry summers in our gravelly soil red spider is very troublesome; it sucks the juices of the leaves, causing them to become brown and to fall off before their time. Another maggot attacks the fruit, and it persistently follows up its attacks from the first formation of the fruit until it is gathered—even further than this, it follows it into the fruit room and burrows into it there. It would be a timely warning to say that no fruit that has been attacked by this pest should be left lying about on the ground, or even left on the trees to fall off. Far better is it to sacrifice all such fruit than to allow it to be a medium of propagating the marander. Then as to gathering and storing. Of the two it is a greater evil to gather Apples under than over-ripe, and the reverse is the case with regard to Pears. The latter fruit should be taken from the trees in different stages of ripeness, although the best-flavoured fruit will be that gathered when the pips have become about half coloured. Gathered earlier than this, the fruit will probably shrivel towards the stalk, and if allowed to hang later it will certainly be wanting in flavour. More especially will this be found to be the case with Pears that ripen after November. Pears that would be in season in December and January may be kept until March by allowing them to hang on the trees a month later than usual; but as to the flavour of such late-ripened fruit, the less said about it the better, although such Pears may be useful to make up dishes if there is other fruit on the table for the use of the guests. It is well that Apples should be ripe before gathering. We have sometimes been tempted to gather the fruit before the pips were brown, to prevent it from being dashed from the trees by wind and rain, but it does not keep so well as that allowed to ripen on the trees. Do not gather Apples unless the fruit parts readily from the trees. When it does so it ought to be gathered, otherwise great loss will result should a high wind arise. All fruit ought to be gathered dry, and handled as a careful poultry-keeper handles eggs for sitting from the choicest strain.

Several questions have arisen lately as to the best place and manner to store Apples. Ours are carried at once to the fruit room, and carefully laid out on shelves; we would not lay them out more than one layer deep if we could help it, but it is sometimes necessary to place three layers one above another. When this is the case there is considerable difficulty in picking-out decaying fruit without moving the sound specimens more than is necessary. Ran the Dutch hoe through the borders, as weeds had grown more than they ought to have done.

FRUIT AND FORCING HOUSES.

Vineries.—Until last week no artificial heat had been applied to the late house of Muscats, Mrs. Pince, &c., since June; and as we like to have the fruit ripe about the first week of September, it has been necessary to warm the hot-water pipes. With ventilation at front and back, the minimum temperature ranges from 65° to 70°, and a nice heat in the pipes causes a good circulation of air in the house, which tends to give flavour to the Grapes. When the houses were built, six or seven years ago, and the borders made, it was intended to widen the space for the roots, which was made up only 6 feet wide inside, and 9 feet outside. All the interior portion has been renewed, and it has now been decided to add 8 feet to the outside. The ordinary garden soil and gravel is being cleared out to the depth of 4 feet, which will allow 1 foot for brickbats and 3 feet for the compost, which will be turfy loam eight parts, rotted manure one part, and to every cartload of this 14 lbs. of crushed bones will be added. Though this alteration is being made, recent experience rather goes to show that the Vine will extend itself, and bear immense crops of fine fruit with a very limited root-space. When the space is confined, annual rich surface-dressings and frequent applications of liquid manure are necessary.

Early houses, from which all the Grapes have been cut, are oftentimes left without any attention to the wants of the Vines. All young growths that are made should be stopped; the border will be dry, and common sense suggests that a thorough good watering will cause the buds, whence comes the crop for next season, to develop themselves. The leaves will be dnaty, and even if red spider is not discerned at a superficial glance, a little investigation will probably show that it is present; whether or not, a good washing from the garden engine will be very beneficial to the Vines.

Cucumber and Melon Houses.—During the last two months very little artificial heat has been required for the Cucumbers, and none at all for Melons. With shortening days and a lower night temperature more attention must be devoted to the heating apparatus. At present the Cucumber house is kept at 70°

though the glass falls to 65° occasionally no harm will be done. Seeds should now be sown for the winter plants. It cannot be expected that plants which have been giving a supply of fruit all the summer, will continue to do so satisfactorily all the winter as well. They will bear all through if overcropping has been avoided, but it is short-sighted policy to trust to them. Our own plants are kept up by cuttings struck twice a year, so that one set of plants will bear a succession of Cucumbers for six months. Melon houses, where the fruit is ripening, require a dry atmosphere, and, as the year goes on, increasing watchfulness is necessary to develop the flavour of the fruit.

PLANT STOVE.

Summer-flowering Cattleyas, such as *C. Mossie* and *C. Warneri*, are now starting into growth. Most of the plants required repotting, and this has been done. The pots are filled nearly three parts full of crocks, using the rougher portion at the bottom and the finer at the top. Equal parts of very fibrous peat, chopped sphagnum, and potsherds are the best material for the roots to work into. Cattleyas and other species of Orchids have been sent to us when the potting material has been peat and decayed sphagnum, firmly compressed into the pot to three parts of its depth, and the result was that all the roots that penetrated into it died; a live root or two may be found at the bottom of the pot amongst the drainage, the life of the plants being sustained by roots rambling over the surface and twining their way down the outer surface of the pot. In fact, no Orchidaceous plant will thrive if potted in a mass of sphagnum and peat in too large a body, and without any admixture of broken pots to keep it open; sooner or later, according to the fibrous nature of the peat, the mass consolidates, owing to the decay of the fibre, and the roots perish.

Potting Ferns and fine-foliated plants. The leaves being kept in health and free from dirt constitutes the beauty of these; they must therefore be kept growing freely, and should the house become crowded it is better to throw some of the plants away than to spoil the beauty of individual specimens. Insect pests also more readily attack root-bound plants than they do those growing more freely. Proper potting material and a moist atmosphere, with a free use of the syringe when necessary, will maintain any plant in good health. Of course there are some Ferns, and fine-foliated plants likewise, that never ought to be syringed, but these the cultivator will soon ascertain for himself. —J. DOUGLAS.

TRADE CATALOGUES RECEIVED.

Dickson & Robinson, 23, Market Place, Manchester.—*Catalogue of Hyacinths, Tulips, Narcissus, Crocus, &c.*

A. M. C. Jongkindt Coninck, Tottenham Nurseries, Dedemsvaart, near Zwolle, Netherlands.—*Wholesale Trade List of Nursery Stock.*

Robert Parker, Exotic Nursery, Tooting, Surrey.—*Catalogue of Alpine and Herbaceous Plants, Bulbous Roots, Fruit Trees, &c.*

James Veitch & Sons, Royal Exotic Nursery, King's Road, Chelsea, S.W.—*Catalogue of Hyacinths and other Bulbous Roots.*

W. Cutbush & Son, Highgate, London, N.—*Bulb Catalogue.*

B. S. Williams, Victoria and Paradise Nurseries, Upper Holloway, London, N.—*General Bulb Catalogue, Fruit Trees, Roses, &c.*

Francis & Arthur Dickson & Sons, 106, Eastgate Street, Chester.—*Catalogue of Dutch and other Flower Roots.*

Lawson Seed & Nursery Company, Southwark Street, London, S.E., and 1, George IV. Bridge, Edinburgh.—*Catalogue of Dutch Flower Roots, &c.*

TO CORRESPONDENTS.

It is particularly requested that no communication be addressed *privately* to either of the Editors of this Journal. All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only.

We also request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

SITUATION (B. T. S. L.).—Write to Mr. Smith, Curator, Botanic Gardens, Kew, and to Mr. Sowerby, Royal Botanic Garden, Regent's Park. They will answer you.

THE WELSH FOR HYACINTH.—"T. G." obligingly writes as follows:—"In your correspondent 'G.'s' interesting paper headed, 'In and Out of Aberystwyth,' No. 3, August 13th, he says that the Hyacinth, *Cerin y brain*, means The Leek of Dignity, or King of Leeks! The proper translation of brain

would be 'Crow's.' King would be *Breun*, an entirely different word. *Cerin y brain* means, therefore, Crow's Leek." In reply, "G." says that in Spurrell's Welsh Dictionary, "braint" is translated "dignity," and "bran" is a "crow." "G." thinks it much more likely that the first title was applied to a flower of beauty.

HAND BOUQUETS.—"Exhibitor" wishes to know at what show a five-guinea cup is offered for the best-arranged bouquet for the hand, and the secretary's address.

ARON'S BEARD (—).—This is a popular name of the Large-flowered Tutsan or St. John's Wort, *Hypericum calycinum*. The Bearded St. John's Wort, *H. barbatum*, is totally different.

IMPROVING A HEATHY PASTURE (A Ten-years Subscriber).—As you do not wish the turf disturbed, and under ordinary circumstances it would not be advisable to do so, we should recommend the heath to be cut off a little below the surface by a sharp spade, or, what is better, a half-mattock hoe made tolerably sharp, taking care to cut away as little of the turf as possible. After removing the heath a few hay seeds may be sown on the bare places, and if a little fine soil can be had cover them with it. We like the beginning of September as well as any time for sowing grass seeds, as they will come up and form a good covering during the autumn, and the whole of the ground might have a good dressing of manure or compost during the autumn or winter. If the turf is mossy, or is of a harsh unpalatable kind, a good harrowing before the compost is put on will do good, as it will break up the tough decayed herbage and encourage fresh. All such dressings should be free of stones, or contain as few as possible; and if of a rough kind the earlier in the autumn they are put on the better, so as to mellow-down by the frost during winter. It is hardly necessary to say that after the compost or dung has been on the ground some time it will require to be more finely broken either with a chain-harrow, or with what is called a brush-harrow, which is a frame of some kind about the size of an ordinary gate, interwoven with suitable pieces of Hawthorn or other hard-wooded tree, and then drawn over the land with a horse. If the land is poor you may apply from thirty to forty one-horse loads of manure to the acre, the latter quantity being as much as turf will bear without destroying it in places, which it is not advisable to do.

POT PLANT (N. B. W. S.).—You could not interpret "a pot of Lilies" as a pot plant, unless the pot contained a single bulb only. "A pot plant" is a single plant in a pot when the term is used in connection with an exhibition schedule, and the same rule ought to be applied to Lilies as to any other plant when this term is used. If it is desired to have as good a show as possible of a Lily in a single pot, then the term "a pot of Lilies" ought to be used in the same way as is done in the case of Lily of the Valley or any other plant which is reproduced by rhizomes and bulbs.

SEEDLING BRIAR (P.).—"I know of no one who sells them. Certainly Mr. Prince cannot spare any of his. I do not know of any other nurseryman who cultivates the seedling Briar. What your correspondent had better do is to save his own Briar seed, and have patience, for it will require a precious lot of this virtue to cultivate the seedling. It never occurred to me that anyone would think of purchasing the seedling Briar stock. What I recommended was the purchase of a certain number of Roses worked on the seedling Briar. Of these your correspondent can obtain any number of Mr. George Prince, Market Street, Oxford.—JOHN B. M. CAMM." [See also what Mr. Mayo says in a previous page.]

MARÉCHAL NIEL OR GLOIRE DE DIJON ROSE FOR STOVE (Marlow).—Neither will succeed in a stove, especially as they would be planted in a wet border and shaded by plants on a stage in front. The best plant for such a position in a stove is *Cissus discolor*, but it requires to have the soil rather dry in winter when it is leafless. An evergreen covering for such a wall would be *Ficus elastica*, the most accommodating plant known.

BOTTLE-BRUSH PLANT NOT FLOWERING (Idem).—Give it a light and airy position in the greenhouse, repotting in spring when it begins to grow, watering copiously when in free growth, and only moderately when the growth is complete, and it will flower when it is sufficiently strong. The pruning should be confined to the removal of irregularities of growth.

CUTTING-DOWN LAVENDER HEDGE (H. G. M.).—If your hedge has become bare of young wood at the bottom, having no young shoots, it is likely if it were cut back to the old brown wood that it would not shoot again, but die. We lost a great many bushes by such a proceeding a few years ago, and we have since cut back only to within an inch or two of the old wood.

SEEDLING CYCLAMEN PERISCIUM TREATMENT (H. N. O.).—Pot them off singly at once in 3-inch pots, and place in a frame, keeping close, moist, and shaded until established, then admit air and light. When the pots become full of roots shift the plants into 4½-inch pots, and remove them to shelves in the greenhouse, keeping moist. They will hardly be sufficiently strong for flowering next spring, though some may do so, and most would were they wintered in a stove or warm greenhouse, so as to keep them in freer growth. Place in a frame after May, and water moderately, only just keeping the soil moist. In August they will again be growing, and should be shifted into 6 or 7-inch pots, and removed to the greenhouse in September. They will flower well in the following winter and spring.

NORTHERN SPY APPLE GRAFTING (Idem).—The trees of this we presume are not on their own roots, but worked on the Crab or Paradise stock. In either case you may graft upon them any kind of Apple you wish, with every prospect of success. The Northern Spy being a late grower will not injuriously affect the growth of the kinds worked upon it.

TACSONIA VAN-VOLKXEM NOT FLOWERING (Idem).—Your plant does not flower because it is not sufficiently advanced in growth. Could you not plant it out, or give it more root space? It would grow more freely; and the shoots being trained out at full length, and about 4 to 6 inches apart, and 9 inches from the glass, ought to flower freely. With us it flowers most of the year, but principally late in summer, autumn, and during the winter.

VIOLA CORNUTA ALBA AND BLUE PERFECTION IN BORDER (T. F. P.).—You may keep the plants where they are for another year, cutting away the flowering parts in autumn, and top-dressing with rich soil. Shoots will come from the base, which should be preserved, but cut off any straggling growths so as to give a neat appearance. We should put in cuttings now, in a shady border of light soil, to be kept moist. The cuttings ought to be of the shoots which come from the base of the plants. They will be used plants for planting by October, and will be available for next spring and summer bloom.

PROPAGATING VARIEGATED ARABIS (Idem).—Now or early next month slip off the shoots, each separately, from the stem it originates from, and insert them about 2 inches apart in rows 3 inches asunder, in light, moderately rich soil, in a shady border, and up to the leaves, keeping moist. They will be well rooted by spring, and may be moved to where they are to remain.

STOVE PLANTS FOR WINTER FLOWERING (D.).—*Echea fulgens*, *Anthurium Scherzerianum*, *Apelandra avaritaca* Roeblii, *Burchellia capensis*, *Ceratopogon* *Lucaeana*, *Conoclinium ianthinum*, *Dalechampia Noebliana* rosea, *Eranthemum pulchellum*, *Euphorbia jacquiniiflora*, *Franciscia calycina* major, *Gardenia citriodora*, *Gesnera exoniensis*, *Ipomoea Horsfallii* (climber), *Madettia bicolor*, *Monochatum ensiferum*, *Plumbago coccinea* superba, *Poinsettia pulcherrima* and vars. *alba* and *major*, and *Thysanotus rutilans*. *Begonia hybrida* multiflora, *Ingramia*, *insignis*, *maicata*, *fuchsoides*, and *nitida* are good free-flowering winter plants. Of Orchids—*Calanthe vestita*, *Barkeria Skinneri*, *Cologyne cristata*, *Lycaste Skinneri*, *Odontoglossum Pescatorei*, *Phajus grandifolius*, *Odontoglossum Alexandrie*, *Dendrobium nobile*, *Epidendrum tigrinum*, *Cypripedium barbatum*, *Miltunia Warscewiczii*, *Zygopetalum erinitum*. The best Roses for forcing are the Tea-scented and Hybrid Perpetuals.

EVERGREEN CLIMBER FOR SHADED WALLS (Terandah).—There is but one plant close-growing and clinging to the wall like Ivy—viz., *Ficus repens*, which would probably succeed, the roots being in the open ground. *Escalonia mucrantha* and *Garrya elliptica* are fine for a south wall, but they would need to be secured to the wall by shreds and nails, or be tied to a trellis.

FIG-TREE CULTURE (A Young Gardener).—Your treatment as described to us is sound, but their having the roots under the path is not good, as they must in summer be deprived of moisture, and this is probably the cause of the fruit falling before ripening. Could you not make holes with a crowbar in the walk, and into these pour water two or three times during summer? It is not good practice to shorten the shoots of trees out of doors; a better practice is to thin-out the long and bare shoots, replacing them with fresh.

STRAWBERRIES IN POTS (Idem).—Do not place them in the house as soon as they have perfected the growth, but pack them in ashes outdoors until January or February, or when you commence forcing, then introduce.

MARROWS OF LORNE CUCUMBERS CROOKED (Tomlin).—It is difficult to account for the fruit being crooked, but they are disposed to be crooked when the bottom heat is deficient and the growth not free. The fruit may be kept straight by placing them whilst young in glass tubes, which are sold by most dealers in horticultural requisites, or could be procured to order. Three pieces of half-inch deal nailed together, so as to form a box without a lid and open at the ends, answer very well; the fruit being laid in them after it begins to swell. They require to be about 3 inches wide and deep.

QUEEN ANNE POCKET MELON (Idem).—Your plants must have been strong when planted, and have done remarkably well, setting the fruit quickly. We have no experience of Melons being planted so late and producing fruit so quickly as yours have done. We agree with you that Queen Anne Melon fully ripe is most beautiful.

MELONS DEFICIENT IN FLAVOUR (A Lady in Cheshire).—There is much in the power of the Melon-grower as regards imparting flavour to Melons. Being grown in a house with Cucumbers is sufficient to account for want of flavour. Melons when ripening require to have the soil and atmosphere drier than for Cucumbers, and on this account it is not desirable to grow both in the same house. The shrub of which you sent us a specimen is *Symphoricarpos racemosus variegatus*. The back numbers of this Journal may probably be disposed of through a bookseller, or an advertisement in our columns.

PINES NOT FRUITING—GLASS GREEN PAINTED (Britannicus).—We do not wonder at the plants becoming drawn and not fruiting in the midst of so much gloom. We should have them potted at once, the paint removed from the glass, and they will probably start for fruit early next year. Slight shade is not amiss for Cucumbers or even Melons when growing, though when ripening they cannot have too much light. The intense gloom caused by the coating of the glass with thick green paint is sufficient to cause them not to do well.

PESTROYING SNAILS AND SLUGS (Willington).—Sprinkle quicklime over the plants and over the ground in the evening just before dark or early in the morning, and this repeated a few times after rain or heavy dew will effectually clear them. It is best done in moist weather after a rainy day, as they are then most active.

SHEEP BARKING ORCHARD TREES (Idem).—Mix equal proportions of cow dung and lime together, with water, to the consistency of paint, and apply to the stems as far as the sheep can reach. It will keep them from barking the trees, but will need to be renewed. There is a composition to prevent hares and rabbits from barking trees, and it would no doubt answer for sheep. It may be had of most nurserymen.

WALCHEREN BROCCOLI HEADING PREMATURELY (A. E. G.).—It is due in a great measure to the plants having remained too long in the seed bed, the check on planting being great, which causes the premature heading. Prick them out when they show the second rough leaf, and plant out when they are stiff sturdy plants, before they become drawn and weak, watering well.

VINES GROWING IN PIT (S. E. T.).—Of the places you name, the greenhouse would be the best suited for Vines, but as you have pits at the sides you could not well provide a suitable border. The span-roofed pit would answer for a couple of Vines, a proper border being made for them outside, the stems introduced through a hole in the wall, the portion outside being protected with a hayband. A Black Hamburgh and Buckland Sweetwater, the one a black and the other a white Grape, would be suitable. Our "Vine Manual" will suit you, price 2s. 6d., or free by post, 2s. 7½d.

STACKING PEA HAY (Sahib).—The haulm of any Pea may be kept for months if thoroughly dried before it is stacked.

WATER IN HEATING APPARATUS (Rus).—It may be not only heated to 170°, but to 212°. We do not know the graduation of a brewer's thermometer, but we presume it is on Fahrenheit's scale, and capable of showing the temperature of boiling water.

THRIPS ON VINES (A County Dublin Reader).—The leaves you sent are attacked by thrips. The remedy is to thoroughly fill the house with tobacco smoke, choosing a calm evening, shutting up the house closely, and having the floor moist. It will be necessary to repeat the fumigation every alternate evening for a week, and in about a week after the last fumigation examine the leaves carefully, and when any of the insects are seen again fumigate.

NAME OF PEA (J. Halstead).—It is impossible to name Peas from the pod only; the plant throughout its growth needs to be seen.

NAME OF FRUIT (S. L. E.).—Lord Suffield.

NAMES OF PLANTS (R. J. S. B.).—1, *Heeria rosea*, Tr.; 2, *Physianthus albus*, Bot. Mag., 3231. (R. J. W.).—*Polypogon monspeliensis*. (Britannicus).

—Many thanks for the last. 1, *Thuopsis borealis*; 3, *Abies Menziesii*. 4, *Abies orientalis*; 5, *Taxus adpressa*; 6, *Abies Nordmanniana*. (A Juvenile).—It seems a *Scirpus*, but we cannot name it unless we see the flower.

POULTRY, BEE, AND PIGEON CHRONICLE.

FRENCH POULTRY IN ENGLAND.

CONSUL HOTHAM, the British representative at Calais, in his last report to the English Foreign Office on the trade of Calais, refers to the attempts which have not unfrequently been made to introduce French poultry into England. This has been done under the impression that with proper care and management these fowls may become a fair source of profit, as far, at least, as eggs are concerned. Mr. Hotham has not yet, however, succeeded in discovering that the French hen, when removed from her native land, has behaved herself with that productive alacrity which distinguishes her in many, though not in all parts of France. The Consul has been informed, and for many reasons he is inclined to believe, that the reason of this is to be found in the following circumstances:—In the neighbourhood of Calais, as well as near Boulogne, there exists a marked quantity of silex in the soil, highly favourable for egg-laying purposes; remove the fowls from this peculiar soil, and their excessive fecundity ceases, and that this is the case is well known. At Amiens, again, this same quality of soil is found, and the poultry from the district are remarkable for their laying qualities; "indeed," continues the Consul, "perhaps they are the most celebrated 'layers' in France." If, therefore, the same breed lay better in one part of France than another, it is not unreasonable to suppose that the change of soil is the principal cause of attempts having hitherto failed to transplant French poultry into England for commercial purposes. Otherwise, Consul Hotham thinks, it surely would be worth our while to turn our attention seriously to the subject, instead of importing hundreds of millions of eggs yearly from France. The reason sometimes given of our climate not being suitable for poultry is, with all due deference to those who advance that theory, more fanciful than real; for, however much our climate may be abused, there are many districts in the south of England which, without a doubt, might compare favourably with the north coast of France, and as to the expense of keeping poultry, the egg-dealers in Calais state that they hardly feed them at all, but let the fowls run about and pick up what they please in the fields and hedgerows. Consul Hotham believes the whole secret to be in the quality of the soil. Whether this could be successfully made up to the French fowls in England by artificial means, is a matter which he is not prepared to discuss. (Land and Water.)

[We think "Consul Hotham," though correct in his facts, is quite wrong in his inferences. Silex is the predominant constituent of all cultivated soils, therefore the French fowls would not lack this aid in England. We do not admit that they are more egg-prolific than many other breeds are in England; but the real reason why so many eggs are imported from France is that its peasantry more generally keep fowls than they do in England, and sell the eggs in quantities too large for home consumption. In England a labourer who keeps fowls eats most of their eggs, and rears chickens from the surplus.—Eds.]

PRODUCTIVE DUCKWING GAME BANTAMS.

I HAVE a pair of Game Duckwing Bantams. The hen began to lay in the middle of last December, and up to the present date (August 13th), she has laid 135 eggs. Is that a usual occurrence? I had a brood hatched on the 14th of last April, three of which were pullets. Two of them have laid this day their first egg; they will be only four months old to-morrow. Is not this also very early for Bantams?—J. STOKES, Ipswich.

[Such laying as you describe is not by any means a common occurrence, but is nevertheless greatly to be desired. The two pullets you mention have begun to lay at the earliest possible period—viz., sixteen weeks. These events are the more to be noted, because they happen to be a sitting breed. Among the non-sitters we not unfrequently hear of large numbers of eggs laid during the year, but we do not hear of their laying so early.—Eds.]

BLACKPOOL POULTRY SHOW.

This was held in connection with the Agricultural Show, on the 12th inst. The awards made by the Judge, Mr. Fisher, of Leeds, were as follows:—

SPANISH.—1 and 2, J. Leeming, Brimington, Preston.
DOBERGERS.—1, J. Robinson, Garstang. 2, W. H. King, Rochdale.
COCHINS CURRA.—1, H. Tomlinson, Birmingham. 2, J. Robinson.
GAYS.—1, C. W. Brierley, Middleton. 2, J. Leeming.
HAMBURGERS.—*Golden-spangled*.—1, J. Robinson. 2, G. & J. Dackworth, Church. *Silver-spangled*.—1 and 2, J. Robinson.
HAMBURGERS.—*Golden-pencilled*.—1, J. Long, Bromley Common. 2, J. Robinson. *Silver-pencilled*.—1, J. Robinson. 2, J. Long.

ANY OTHER VARIETY.—1, T. F. Ansdel, St. Helens. 2, J. Robinson.
 BANTAMS.—1, E. F. Addie, Preston. 2, G. Anderson, Accrington.
 GAME.—Cock.—1, J. Laming. 2, C. W. Brierley.
 DUCKS.—Aylesbury.—1, J. Robinson. Any other variety.—1 and 2, H. B. Smith, Doughton, Preston.
 GEES.—1, G. H. Catterall, Lytham. 2, T. Fare, Skippool.

HEREFORD POULTRY SHOW.

THIS Show proved a most successful one, so much so that the most practical amateurs confessed the competition was much greater than they had anticipated. We can with justice speak very highly of the general arrangements and the attention paid to the specimens, the only drawback being that some of the high-class breeds of Pigeons were placed decidedly too high from the ground for comfortable inspection by either visitors or Judges, a mismanagement that only interfered with the general appearances of the Show. Three tiers are always to be avoided if possible, more particularly if placed upon the poultry pens.

Grey *Dorkings* were very good, Mr. Walker's first-prize-and-cup bird being penned in admirable condition for the time of year, and it also was especially good about the feet for so large a bird. Messrs. Burnell and Darby had an especially close run in hens, as both of the prize pens of *Dorking* hens were so good, we could see but little for choice between them. In *Dorking* cocks of any other variety Mrs. Bailey's very true-feathered cock, a grand Silver-Grey, stood very far ahead of its rivals; for purity of colour it has but very rarely been equalled. The second-prize was also a Silver-Grey, but infinitely inferior. The remainder were White *Dorkings*, but shown in anything but good feather, whilst most of them proved unusually faulty in combs. In the hens a very nice pair of Silver-Greys, exhibited by Mr. Cresswell, took the first prize, and two pens of superior White hens were second and highly commended. The entry of Dark *Brahmas* cocks consisted of only four pens, the first prize being won by a really good one, but the second-prize pen was not of remarkable excellence. In pairs of hens or pullets Mr. Edwin Pritchard had an easy win with a lovely pair of Dark pullets, also securing the silver cup allotted to Dark *Brahmas*. They were one of the chief attractions at Hereford. As might be anticipated in this neighbourhood, the Light *Brahmas* were heavy classes of good well-shown birds, Mr. Dean taking first for cocks, and Mr. William Harris that for hens with a specially fine-plumaged pen of pullets that also secured the cup for the best pen of this fashionable variety. Mr. Henry Tomlinson took both first prizes in the cock class, also for hens in Buff *Cochins*, the hens taking the cup. These latter birds were well shown; the cock, however, was certainly not looking so well as he has done heretofore. Mr. Winwood and Mr. Bloodworth were the respective second-prize winners with very fine pens. White *Cochins* and a pen or two of excellent Partridge-coloured were much admired. The *Game* fowls throughout could not be spoken of highly, the majority of them being in heavy moult. A large entry of first-class *Hamburgs* proved a general attraction, a pen of Golden-spangled taking the cup, the hen being of an extraordinarily clear and rich ground colour. *Spanish* and *Houdans* might easily have been of a better character. Why it was so seems an enigma, with very fair prizes offered; but only two pens of *Game Bantams* were entered, and neither of them really high-class birds. The Black *Bantams* and the Silver-laced *Sabretrons* were unusually perfect. Really good Malays and Black *Hamburgs* were shown in the Selling cock class, and very fine Dark *Brahmas* and White *Cochins* in the hen class. So very indifferent were the entries of Pencilled *Hamburgs* in the Any other variety cock class (a Selling class), that the prizes were withheld altogether; the hens were, however, praiseworthy. Black *Spanish* and Black *Hamburgs* being the prizewinners.

Of *Ducks* of every kind, *Geese* both White and Grey, and *Turkeys*, few, if any, shows could boast of better, and we cannot but specify the cup-winning Turkey hen, she being one which from her large frame was a treasure to any Turkey-breeder. Buenos Ayrean *Ducks* took first position in an exceedingly well-filled class against many capital pens of fine-plumaged Waterfowls of the choicest kinds. Mr. Walker's *Geese*, both Embden and Toulouse, were remarkably well shown.

Pigeons were unusually good, as may be well imagined when we say Mr. Fulton and Mr. Spencer were the most important competitors. Almost every breed of Pigeons was represented by the best birds to be met with, and the generality were sent in excellent condition; but, as may be gathered from what has been before stated, a great portion of the attractiveness of this division of the Show was lost from the pens being placed far above the heads of most of the visitors.

(From a Correspondent.)

THIS Show was held on the 11th, 12th, and 13th of August in a large tent in the grounds of the Agricultural Society, and proved a great success. There was some little delay in penning the birds, but this was caused by the carpenters being behind time with their staging. The birds were well attended to, but we should have preferred to have seen more soft food given them,

and less whole maize and barley. The two most experienced Judges were employed, and as usual, when such is the case, general satisfaction was given to exhibitors. Mr. Birch, the Honorary Secretary, cannot be too "highly commended" for his attention and courtesy.

Coloured *Dorkings* came first. In this, as in the other classes, adult birds and chickens competed together. The prizes were given to two grand adult birds about equal in weight. The first-prize bird was in the best condition, but the second was certainly the better *Dorking*, being short, broad, and deep, while the cup bird was leggy. A forward cockerel was highly commended. In Coloured hens first were old birds, in good condition for the time of year; second, splendid chickens, which we should have liked to have seen put first. Mr. Walker's hens were large, but in dreadful feather. In the Variety *Dorking* class both prizes were given to Silvers. The second was the larger bird, but the first the best colour. A White cock deserved notice. In hens, first were large Silvers, second very good Whites. In Dark *Brahmas* the first prize went to a promising chicken, while the cup Dark *Brahma* pullets we have rarely seen equalled, being good all round; they were claimed at £25, and went to the north of England. The second-prize pullets were rather light in the throat, but far too cheap at £2; they were quickly snapped-up by a "knowing one." Mr. Dean's Light *Brahma* cock again took a first prize, but he was in a woeful state, and sadly requires a new suit. The second-prize bird was in better feather, but rather yellow. Mr. Lingwood showed an enormous cockerel of the American pattern sadly wanting in chest. We liked his second-prize pullets much, quite as much so as those that won. Buff *Cochins* were good, especially the second-prize pullets, which were claimed at seven guineas, and will be cheap if they do not become "mealy-winged." In the Variety *Cochin* cocks first was a White, second Black; while Blacks won first in hens, White chickens second. One of Mr. Feast's White hens was found dead on arrival. Surely, from the way this exhibitor sends his birds about from show to show without anyone to look after them, he must be very deficient in common humanity, to say the least of it; he has had several hints on this subject, but does not seem to be able to take them. We hope no more will be required. *Game* were poor, if we except the cup pen. In *Hamburgs* a local exhibitor won the cup in good competition. The first-prize *Crev-Ceurs* were particularly praiseworthy. In *Dantams* the first-prize Blacks were extra good, particularly in earlobe. Some good Silver-laced chickens were shown, and deservedly won a prize.

Ducks, *Geese*, and *Turkeys* were all good classes. In the Local classes a protest was lodged against the first-prize birds winning, as, though exhibited by a local man, they were found to be borrowed, a plan we do not at all admire.

DORKINGS (Coloured).—Cock.—1 and Cup, J. Walker, Spring Mount, Rochdale. 2, A. Darby, Baschurch. *he*, T. C. Burnell, Micklethorpe. *c*, E. Shaw, Plas Wilford, Oswestry. *Hens*.—1, A. Darby. 2, T. C. Burnell.

DORKINGS (Any other variety).—Cock.—1, Mrs. H. T. Bailey, Tenbury. 2, T. C. Burnell. *Hens*.—1 and *he*, O. E. Cresswell, Earlywood, Bagshot. 2, A. Darby.

BRAHMAS (Dark).—Cock.—1, Hon. Mrs. A. B. Hamilton, Ridgemoor, Woburn. 2, J. Watts, Hazlewell Hall, King's Heath, Birmingham. *Hens*.—1, E. Pritchard, Tettenhall. 2, W. Plummer, Holmer, Hereford. *he*, H. B. Morrell, Cemaaw, Clyn.

BRAHMAS (Light).—Cock.—1, T. A. Dean, Hereford. 2, Mrs. A. Williamson, Leicester. *he*, T. A. Dean; Horace Lingwood; J. Rooke. *c*, M. Leno, Markyate Street. W. H. Mitchell, Moseley, Birmingham. *Hens*.—1 and Special Cup, W. Harris, Bridgend. 2, Horace Lingwood. *he*, T. A. Dean; W. H. Mitchell; Mrs. A. Williamson. *c*, E. Kendrick, Jun.

COCHINS (Cinnamon and Buff).—Cock.—1, H. Tomlinson, Gravelly Hill, Birmingham. 2, E. Winwood, Worcester. *he*, A. Darby; C. Sulzwick; Ryddenden Hall, Keghly. *c*, J. Bloodworth, Cheltenham. *Hens*.—1 and Cup, H. Tomlinson. 2, J. Bloodworth. *c*, C. Bloodworth; H. Feast.

COCHINS (Any other variety).—Cock.—1, Mrs. A. Williamson. 2, H. Feast. *Hens*.—1, A. Darby. 2, C. Bloodworth.

GAME (Black-breasted Red).—1, J. Mason, Worcester. 2, J. J. James, Sketty, Swansea. *he*, W. Jones, Worcester.

GAME (Any other variety).—1 and Cup, C. W. Brierley, Middleton, Manchester. 2, E. Winwood.

HAMPSHIRE (Golden or Silver-spangled).—1 and Cup, Mrs. G. M. Rolls, Hendre Morrhay. 2, J. Long, Bromley Common. *c*, P. Hanson, Wheatonhurst, Stanchouse.

HAMPSHIRE (Golden or Silver-pencilled).—1, P. Hanson. 2, J. Long. *c*, H. Feast.

CREVE-CEURS.—1 and Cup, J. J. Malden, Biggleswade. 2, H. Feast. *Houdans*.—1, G. W. Hibbert, Godley, Hyde, Manchester. 2, D. Lane, Hardwick, Gloucester.

PANISH.—1, E. Winwood. 2, H. Feast.

POLISH.—1, C. Bloodworth. 2, H. Feast.

BANTAMS (Game).—1, A. Darby. 2, H. Feast.

BANTAMS (Black).—1, J. Walker. 2, R. H. Ashton, Mottram. *he*, H. Feast.

BANTAMS (Any other variety).—1, M. Leno. 2, J. Lloyd, Kingston, Herefordshire. *he*, J. Bloodworth; J. Watts.

ANY OTHER VARIETY.—1, C. Sidwick (Black *Hamburgs*). 2, Rev. N. J. Ridley, Hollington, Newbury (Malays). *he*, Rev. A. G. Brooke, Shrawardine; H. Feast; J. Long.

SELLING CLASSES (*Brahmas*, *Cochins*, and *Dorkings*).—Cock.—1, J. Walker (Partridge *Cochin*). 2, T. A. Dean, Marden (Light *Brahmas*). *Hens*.—1, T. A. Dean. 2, C. Bloodworth. *c*, T. A. Dean; J. Bloodworth.

ANY OTHER VARIETY.—Cock.—Prizes withheld. *Hens*.—1, E. Winwood. 2, E. Slake, Bromfield, Salop.

LOCAL CLASS.—1, Mrs. T. A. Dean. 2, Mrs. H. T. Bailey. *c*, C. J. P. Nash, Blakeney, Hereford.

DUCKS (Aylesbury).—1, Cup, and 2, J. Walker. *he*, Mrs. H. J. Bailey; S. R. Harris, Cusgarne; T. Sear, Aylesbury. *c*, H. Feast.

DUCKS (Rouge).—1, J. Walker. 2, T. Wakefield, Golborne.

DUCKS (Cabo).—1 and *he*, Mrs. H. T. Bailey. 2, T. Wakefield.

DUCKS (Any other variety).—1, J. W. Kellaway, Merston, Isle of Wight. 2, M. Leno. *he*, M. Leno (2); C. H. Mayo.

GEES (Grey or Mottled).—1, J. Walker. 2, Mrs. H. T. Bailey.

GEESSE (White).—1 and Cup, J. Walker. 2, Mrs. H. T. Bailey. *hc*, Mrs. W. Berrow, Alconbury; Mrs. A. Dugham, Ross.
 TURKEYS.—Cock.—1, Rev. N. J. Ridley. 2, Mrs. H. T. Bailey. *hc*, A. Armitage, Radnor. *Hen*.—1 and Cup, Rev. N. J. Ridley. 2, E. Kendrick, jun.
 SELLING CLASS.—Ducks.—1, J. Walker. 2, T. Sear.
 LOCAL CLASS.—1, Mrs. H. T. Bailey. 2, C. J. P. Nash.

PIGEONS.

CARRIERS.—1 and Cup, P. R. Spencer, Hereford. 2, S. D. Baddley, Hereford.
hc, R. Fulton, Bruckley Road, New Cross; J. James, Bath (2); P. R. Spencer.
 POUTERS.—1 and 2, H. Pratt, Hampton-in-Arden. *hc*, Rev. W. C. Ballen, Bath; Mrs. Ladd, Calne; P. R. Spencer.
 ANTWERPS.—1, P. R. Spencer. 2 and *hc*, H. Gough, Wolverhampton.
 BARBS.—1, R. Fulton. 2 and *hc*, P. R. Spencer. *hc*, G. H. Gregory.
 FANTAILS.—1, P. R. Spencer. 2, G. Holloway, jun., Stroud. *hc*, R. Fulton; J. F. Loversidge, Newark.
 JACOBINS.—1, R. Fulton. 2, P. R. Spencer.
 DRAGONS.—1, W. H. Mitchell. 2, R. Fulton.
 TRUMPETERS.—1, R. Fulton. 2, P. R. Spencer.
 TUMBLERS.—1, R. Fulton. 2, P. R. Spencer. *hc*, R. Fulton; P. R. Spencer.
 ANY OTHER VARIETY.—1, R. Fulton. 2 and *hc*, P. R. Spencer.

JUDGES.—Mr. Hewitt, Birmingham; Mr. Teebay, Fulwood, Preston.

THE POULTRY-KEEPER.—No. 15.

THE SPANISH HEN.

THE hen has nearly the same characteristics as the cock. She is sprightly, and holds up her head and tail proudly. Her plumage is like that of the cock, but the iridescence is less varied and brilliant.

Weight.—5½ lbs., a little more or less.

Head (fig. 52).—Delicate, sprightly, and of rather small size.

Comb.—Long, finely denticulated, bent near the base, and falling on one side of the head without touching the cheeks.

Wattles.—Long and round.

Ears.—Large and white.

Tuft.—Larger than the cock's.

Cheeks.—White like those of the cock, but without the wrinkles, and scattered over with small black feathers, imperceptible at a distance.

Nostrils.—Ordinary.

Beak.—Like that of the cock.

Eye.—Iris, red; pupil, dark chocolate.

Feet and Toes.—Ordinary, somewhat long.

Laying.—Excellent; eggs white, very large and delicate; non-sitter.

GENERAL OBSERVATIONS.

This variety is of remarkable beauty as a fancy bird, and of great fecundity; it may be added, also, that it is excellent for the table.

The cock is an admirable bird, contrasting with all the other varieties, and the hen lays very many large milky-white-shelled eggs, and of an exquisite flavour. The flesh is very abundant, of a remarkable flavour; the skin white and fine. The comb, by its shape and the contrast of colour, is a very peculiar ornament. The comb is very tender in cold seasons, and may be destroyed by even a slight frost if the birds are not shut-up in time; therefore this fowl is only to be recommended for warm localities. The chickens are covered with a bluish black down, marked with white, which comes off, and often leaves them naked. They are extremely susceptible of cold, and take a long time to feather. It is not till they are five weeks old that they begin to have feathers, which first appear on the back, and the birds are not entirely feathered till about two months and a half old. They decline much when the large tail feathers begin to grow, which takes place at the fourth month. The colour of the skin is fine, and they can be set free at the end of five or six months; a projecting breast and long limbs give the bird a disadvantageous aspect, and but an erroneous idea of the quality and abundance of its flesh.

The old, like the young ones, feel much the moulting, and their productiveness makes them always irritable. The rearing of the chickens must be watched very carefully, and especially during the first six weeks, and they require delicate food, given often and in small quantities. The hen will lay six eggs a week from February to August, and from November to February three eggs a week, smaller than those of the summer. If the poultry-yard is well sheltered they commence laying at five months old, and continue to do so during the winter. The eggs can only be sat on in April. The white on the face appears more with the cock than the hen, and modifies according as the bird is more or less amatory.

The pure black colour is the only one very much esteemed. When one has been imprudently exposed to too low a temperature, and the comb is frozen, which may easily be seen by its black colour, care must be taken before putting it again into a warm place, to directly rub the affected part with snow or ice till it becomes red again.

There are some varieties. The *Minorca*, of which the cheek of neither the cock nor hen is white, though the ear is the same as



Fig. 52.

Spanish Hen's Head.

in the Spanish. It is higher on the feet, and preferable for the table on account of its more rounded form.

The *Ancona* like the *Minorca*, if it were not that the plumage is sometimes white, sometimes black, and sometimes partridge.

The *White Spanish*, which is none other than albino reproducing black.

The *Andalusian*.—Cock from 6½ to 7½ lbs. Hen from 5½ to 6½ lbs. Colour of feathers slate or greyish blue. Feathers of the hackle, back, tail, the upper coverts of the wings and shoulders, vary between slate grey, black, and ringdove. Feathers of the thighs, the throat, the under coverts of the wings, slate or greyish blue. The plumage of the hen is all over bluish grey. The comb of the cock is very high and very large, also that of the hen, which is large and hanging. In both sexes the ears are white, the cheeks red, the eye and beak black.

PADDOCK (NEAR HUDDERSFIELD) POULTRY SHOW.

THIS took place on the 8th inst. The awards were as follow:—

BRAMMAS.—Cup, H. Beldon, Goitstock, Bingley. 2 and *hc*, J. H. Pickles, Southport.
 HAMBURGS.—*Golden-spangled*.—1 and 2, H. Beldon. *hc*, N. Marlor, Denton, Manchester. *Silver-spangled*.—1 and 2, H. Beldon.
 HAMBURGS.—*Golden-pencilled*.—1 and 2, H. Beldon. *Silver-pencilled*.—1 and *hc*, H. Beldon. 2, H. Smith, Keighley.
 HAMBURGS.—*Dark*.—1, H. Beldon. 2, N. Marlor. *hc*, H. Beldon; C. Sidgwick, Keighley; W. Bentley, Holmfirth.
 GAME.—1, J. Fortune, Keighley. 2, R. Walker, Gomersal. *hc*, H. Beldon.
 BANTAMS.—1, G. Noble, Staincliffe. 2, R. H. Ashton, Mettram. *hc*, F. Steel, Halifax.
 SPANISH.—1, J. Thresh, Bradford. 2 and *hc*, H. Beldon.
 POLANDS.—1 and 2, H. Beldon.
 COCHINS-CHINA.—1, W. Harvey, Sheffield. 2, J. Walker, Rochdale. *hc*, H. Beldon; C. Sidgwick; G. Palfryman, Sheffield.
 DORKINGS.—1, J. Walker.
 HOUDANS.—1, J. Healey, Hepworth. 2, G. W. Hibbert, Hyde.
 SELLING CLASS.—1, W. Harvey. 2, H. Beldon.
 GEESSE.—1, J. Walker.
 DUCKS.—*White Aylesbury*.—1 and *hc*, J. Walker. 2, J. Newton, Silsden, Leeds. *Rouen*.—1, J. Walker. 2, J. Newton, Silsden. *hc*, T. Halmshaw, Earsheaton.

PIGEONS.

CARRIERS.—Cup and 2, G. J. Taylor, Fartown. *hc*, W. H. A. Millar, Walsall.
 CROPPERS AND POUTERS.—1, W. Harvey. 2, G. J. Taylor.
 TRUMPETERS.—1, W. Harvey. 2, F. Steel.
 TUMBLERS.—*Abundant*.—1, W. Harvey. 2, J. H. Sykes, Huddersfield. *hc*, J. Ainsworth, Hyde. *Any variety*.—2, G. J. Taylor.
 FANTAILS.—2, G. J. Taylor.
 BARBS.—1 and *hc*, G. J. Taylor. 2, W. Harvey.
 TURBOTS.—1, E. Burton, Huddersfield. 2 and *hc*, G. J. Taylor.
 JACOBINS.—1, W. Harvey. 2, G. J. Taylor.
 ANY OTHER VARIETY OR COMMON.—1, F. Steel. 2, G. J. Taylor. *hc*, G. J. Taylor; G. de Lisle, Loughborough; A. Saul, Paddock.
 SELLING CLASS.—1, J. H. Sykes, Huddersfield. 2, W. Harvey. *hc*, G. J. Taylor.

CATS.

PERSIAN.—1, H. Appleton, Huddersfield. 3 and *hc*, M. Peel, Edgerton.
 AGOUTI.—1, E. Morrison, Huddersfield.
 MANX.—2, W. Shaw, Trimrose Hill.
 TORTOISESHELL OR TORTOISESHELL-AND-WHITE.—1, H. Binns, Height, Lindley. 2, W. Greenwood, Chapel Hill.
 BLACK.—1, J. Hellewell, Huddersfield.
 GREY TABBY.—1, J. Hampshire, Little Liversedge. 2, J. Broadbeat, Paddock.
c, G. Ainley, Castlegate, Huddersfield.

JUDGES.—*Poultry and Pigeons*: Mr. James Dixon, Clayton, Bradford; Alderman J. Jordan, Dalton, Huddersfield. *Rabbits and Cats*: Mr. Fisher, Carrhead, Crosshills; Mr. G. Johnson, Kettering.

MALMESBURY POULTRY SHOW.

THIS was held on the 13th inst. The following are the awards:—

DORKINGS.—1, T. C. Burnell, Micheldever. 2, H. Feast, Swansea. *hc*, J. S. Chisholm, Swindon.
 SPANISH.—1, E. Winwood, Worcester. 2, W. Kent, Tetbury.
 GAME.—*Black-breasted Red*.—1 and *c*, E. Bowly, Cirencester. 2, E. S. Godsell, Stroud. *Any other colour*.—1, E. Winwood. 2, G. Hanks, Malmesbury.
 COCHINS.—1, Hon. Mrs. Sugden, Wells. 2, R. S. S. Woodgate, Pembury, Tonbridge Wells. *hc*, Hon. Mrs. Sugden; H. Tomlinson, Birmingham; E. Winwood; H. Feast.
 BRAMMAS.—*Dark*.—1, H. H. Haddrell, Calne. 2, J. Triander, Cirencester. *hc*, R. Smith, Calne; H. Feast. *c*, E. S. Godsell; J. S. Maggs, Tetbury. *Light*.—1, T. Dore, Marden, Hereford. 2, E. Scammell, Hiperton. *hc*, Rev. N. J. Ridley, Newbury. *hc*, H. Feast; T. A. Dean.
 HAMBURGS.—1, H. H. Thompson, Farringdon. 2, H. Feast. *hc*, P. Hanson, Stonehouse.
 ANY VARIETY.—1, H. Feast. 2, J. Hinton, Warminster. *hc*, Rev. N. J. Ridley; J. S. Maggs. *Cock*.—1, Col. Miles, Malmesbury. 2, G. Hanks.
 BANTAMS.—1, J. Mayo.
 HAKES.—Miss Johnson, Malmesbury; G. Stratford, Didmorton; E. Bowley. *Any other variety*.—1, H. Yarley, Birmingham. 2, J. Mayo. *hc*, C. Lewis, Charlton; G. Holloway, Stroud; T. C. Buraell, Micheldever; J. S. Maggs.
 SELLING CLASS.—1, J. S. Maggs. 2, E. S. Godsell. *hc*, G. Hanks; P. Hanson, *c*, J. S. Maggs.
 DUCKS.—*Rouen*.—1, E. Clark, Malmesbury. 2, G. Hanks. *hc*, Miss E. R. Dillar, Christian Malford, Chippenham. *c*, J. Collinghurst; J. S. Maggs; G. Hanks. *Aylesbury*.—1, E. Bowley. 2, J. S. Maggs. *hc*, J. S. Maggs; G. Hanks. *Any other variety*.—1, J. W. Kelleway, Isle of Wight. 2 and *hc*, G. S. Samsbury.
 GEESSE.—1 and 2, G. Hanks.

PIGEONS.

CARRIERS.—1 and 2, T. Jones, Malmesbury. *hc*, T. Jones; R. Barrett, Stroud.
 COCK.—1, P. R. Spencer, Hereford. 2, H. Yardley. *hc*, R. Barrett.
 POUTERS.—1, G. Holloway, Stroud. 2, R. Barrett. *hc*, H. Yardley; P. R. Spencer. *Cock*.—1, H. Yardley. 2, P. R. Spencer. *hc*, R. Barrett.
 TUMBLERS.—1, H. Yardley. 2, R. Barrett. *hc*, J. S. Maggs.
 TRUMPETERS.—1, P. R. Spencer.
 JACOBINS.—1, H. Yardley.

ANTWERPS.—1, H. Yardley. 2, J. S. Maggs. *hc*, W. Tomlins, Oxford; P. R. Spencer.
 FANTAILS.—1, P. R. Spencer. 2, G. S. Sainsbury. *hc*, Dr. Kinnier, Malmesbury; H. Yardley; G. Holloway.
 ANY OTHER VARIETY.—1, P. R. Spencer. 2, H. Yardley. *hc*, G. Holloway; W. Tomlins; P. R. Spencer.

RABBITS.—*Lop-eared*.—1, Hon. M. Howard, Charlton Park. 2, Mrs. Bailey, Malmesbury. *Himalayan*.—1, R. Barrett, Stroud. *Silver-Gray*.—1, E. Crawford, Cirencester. *Any other variety*.—1, J. Moore, Malmesbury. 2, Dr. Kinnier.

JUDGES.—Mr. J. Martin, Baschurch, Salop.

ROYAL AGRICULTURAL SOCIETY OF IRELAND'S POULTRY SHOW.

The following prizes were awarded at this Exhibition, held at Wexford on August 13th, 14th, and 15th.

DORKINGS.—*Silver-Gray*.—1, S. Mowbray, Monntrath. 2, J. C. Cooper. *hc*, D. A. Milward, New Ross. *Chickens*.—1, D. A. Milward. 2, Withheld.
DORKINGS.—*Coloured*.—1, J. C. Cooper. 2, S. Mowbray.
SPANISH.—1, J. C. Cooper. 2, S. Mowbray. *Chickens*.—1, S. Mowbray. 2, J. Harvey. *hc*, J. C. Cooper.
GAME.—1 and 2, J. C. Cooper. *hc*, F. Carr, New Ross.
COCHIN-CHINAS.—1, J. C. Cooper. 2, No competition. *Chickens*.—1 and 2, Mrs. Harvey, Wexford.
BRAHMAS.—*Dark*.—1, R. W. Boyle, Milltown. 2, J. C. Cooper. *hc*, Mrs. Taaffe; C. H. Peacocke. *Chickens*.—1 and *hc*, J. C. Cooper. 2, R. W. Boyle.
BRAHMAS.—*Light*.—1, J. C. Cooper. 2, No competition. *Chickens*.—1, J. C. Cooper. 2, No competition.
HOUDANS.—1 and 2, J. C. Cooper.
HAMBURGS.—*Pencilled*.—1 and 2, S. Mowbray. *Spangled*.—1, S. Mowbray. 2, H. J. Oliver, Wexford.
ANY VARIETY.—1, J. C. Cooper (La Flèche). 2, J. Harvey (Crève-Cœur). *hc*, J. C. Cooper; S. Mowbray; Hon. Mrs. Keane; E. G. C. Harvey.
COTTAGE CLASS.—*Aylesbury Ducks*.—1 and 2, W. Magrath. *hc*, K. Byrne; M. Magrath.
DUCKS.—*Rouen*.—1, R. W. Boyle. 2, S. Mowbray. *hc*, D. A. Milward (2); J. C. Cooper.
GESE.—*White*.—1, J. C. Cooper. 2, S. Mowbray. *Goslings*.—1, J. C. Cooper. 2, S. Mowbray.
GESE.—*Gray*.—1, S. Mowbray. 2, J. C. Cooper. *hc*, C. H. Peacocke. *Goslings*.—1, J. C. Cooper.
TURKEYS.—1, J. C. Cooper. 2, C. H. Peacocke. *Poult*.—1, Miss H. Craith, Cahur. 2, E. Carr. *hc*, C. H. Peacocke.

JUDGE.—Mr. C. F. Staunton, 81, Strand Road, Sandymount, Dublin.

ALDBOROUGH AND BOROUGHBIDGE POULTRY SHOW.

The fourteenth Exhibition was held on the 7th inst. in a field near the town capitally suited for the purpose. The day was fine, and the attendance very numerous. The number of entries was more than double that of any previous Show, caused, no doubt, by the very beautiful extra prizes given in the shape of teapots, cups, &c. The quality of the poultry and Pigeons was very creditable, and many first-class specimens were shown. The number of entries in poultry was 150; of Pigeons, 122; and of Rabbits, 10.

TURKEYS.—Cup, I. Moorey, Mnlwith, Ripon. 2, Miss Parker, Thirsk. *Poult*. 1 and 2, T. H. Foden, Ripon. *hc*, I. Moorey; F. Parker, Roehiffe, Boroughbridge; Mrs. G. Mangles, Givendale, Ripon.

GESE.—1, J. Nicholson, Littlethorpe, Ripon. 2, J. T. Renton, Ripon. *hc*, Mrs. G. Mangles. *Goslings*.—1, Mrs. G. Mangles. 2, J. T. Renton.

DUCKS.—*Aylesbury*.—1 and 2, T. P. Carver, Langthorpe, Boroughbridge. *Ducklings*.—1 and 2, T. P. Carver.

DUCKS.—*Rouen*.—Cup, C. Graham, Aldborough. 2, T. P. Carver. *Ducklings*.—1, Mrs. G. Mangles. 2, C. Graham.

DUCKS.—*Any other variety*.—1, G. Sadler, Boroughbridge.

FARMYARD CROSS.—1, W. Woodward, Minskip, Boroughbridge. 2, A. C. M. Thompson, York. *Chickens*.—1, T. P. Carver. 2, A. C. M. Thompson. *hc*, T. P. Carver; E. Williams, Sharow, Ripon.

CHINESE FOWLS.—1, W. H. Young, Driffield. 2, J. King, Ripon. *hc*, J. T. Renton.

DORKINGS.—Cup, Lady A. Beresford-Peirse, Bedale Hall. 2, T. P. Carver. *SPANISH*.—1, Pickering & Duggleby, Driffield. 2, Pallister & Hawkins, Topcliffe.

COCHIN-CHINAS.—1, R. J. Raworth, Harrogate. 2, F. Horseman, Boroughbridge.

BRAMA FOOTBALLS.—Cup, Lady A. Beresford-Peirse. 2, Mrs. G. Mangles. *hc*, T. P. Carver.

GAME.—Cup, J. Watson, Knaresborough. 2, Pickering & Duggleby. *hc*, S. Shaw, Langthorpe.

DORKINGS. **SPANISH**. **COCHIN-CHINAS**. **BRAHMAS**. OR **GAME**.—*Chickens*.—1, Lady A. Beresford-Peirse. 2, Pickering & Duggleby. 3, T. P. Carver. *hc*, Mrs. G. Mangles (2); R. R. Farrar, York; Pallister & Hawkins.

HAMBURGS.—*Gold or Silver-spangled*.—1, Pickering & Duggleby. 2, T. P. Carver. *Gold or Silver-pencilled*.—1, Wells & Sherwin, Ripon. 2, J. Robshaw, Whitley, York.

POLANDS.—1 and 2, C. Walker, Boroughbridge.

BANTAMS.—*Game*.—1, Wells & Sherwin. 2, Lady A. Beresford-Peirse. *Any other variety*.—1, Wells & Sherwin. 2, F. Powell, Knaresborough. *hc*, T. P. Carver (2).

ANY OTHER VARIETY.—Cup, T. P. Carver. 2, G. Slater, Ripon. *Chickens*.—1 and *hc*, J. Robshaw. 2, C. Holdsworth, Harrogate. 3, F. Horseman.

SELLING CLASS.—1, T. P. Carver. 2, H. Taylor, Boroughbridge. *hc*, Wells and Sherwin.

PIGEONS.

POUTERS.—1, Wells and Sherwin. 2, R. R. Farrar.

CARRIERS.—1, G. Sadler. 2, A. T. Umpleby, Boroughbridge. *hc*, W. Boddy, Ripon (2); G. Sadler; Miss F. Seignor, Leeds.

TRUMPETERS.—1, A. Walker, Boroughbridge. 2, P. Wilson, Boroughbridge.

JACOBS.—1, T. Dale, Scorton, Catcliffe. 2, Miss F. Seignor.

FANTAILS.—1, J. Wetherill, Northallerton. 2, J. Umpleby, Boroughbridge.

hc, T. Horseman.

TUMSELMAN.—Cup, Miss F. Seignor. 2 and *hc*, Wells & Sherwin.

BABBS.—1 and 2, Miss F. Seignor. *hc*, A. J. Blakeborough, Harrogate; A. Russell, jun., Northallerton.

NUNS.—1 and 2, Miss F. Seignor.

ANTWERPS.—1, Miss F. Seignor. 2, J. Snowden, York. *hc*, B. Watts, Aldborough; E. Bowman, Boroughbridge; T. Horseman.

TURBOTS.—1, T. Dale. 2, W. Umpleby. *hc*, T. P. Carver.

OWLS.—*English*.—1, A. T. Umpleby. 2, G. Sadler. *hc*, G. Sadler; Miss F. Seignor.

ANY OTHER VARIETY.—1, G. F. Umpleby. 2, Wells & Sherwin. *hc*, Miss F. Seignor (2); Wells & Sherwin.

SELLING CLASS.—1, W. Scott, Boroughbridge. 2, Wells & Sherwin. *hc*, W. Boddy; R. R. Farrar.

RABBITS.—*Any breed*.—*Duck*.—1, S. E. Phillips, Ripon. 2, G. Grainger, Northallerton. *Doe*.—1, J. K. Swift, Boroughbridge. 2, S. E. Phillips.

EXTRA STOCK.—*hc*, J. H. King, Boroughbridge; W. Charlton, Ripon; J. & A. Pinkney, Aldborough.

Mr. James Dixon, Bradford, and Mr. Joseph Walker, of Birstwith, acted as Judges.

BISHOP AUCKLAND POULTRY SHOW.

The pens were arranged in double rows stretching from north to east in the most prominent part of the cricket field in which the Show was held, and the wind proving fresh, and the pens (which were Pothergill's, of Sunderland), having by some accident been left unfastened, a number were blown over, and the occupants let loose. These were only secured and repenned after considerable trouble. Most of the varieties were divided into classes for adult and young birds, and though the season is well advanced the old section was well filled, numbering 135 pens, with 173 chickens. The adult *Dorkings* were good for the time of year; the *Cochins* grand, every pen being noticed. The medal for several classes went to a splendid pair of Buffs. *Brahmas* were not good as a class; but in *Spanish* there were some good birds, although the best were sadly out of feather. *Red Game* proved good, the first-prize cock a most excellent bird in hand, but the hen was rather grey in body; the second were fully better in colour, but not so good in hand, many of the pens, mostly Brown Reds, coming in for high commendations. In other colours Duckwings were first, and Pileas second. *Hamburgs* were but poor. If we except the prize-winners and one or two pens, the Gold-spangled proved best as a class; while the winners in Silver-pencilled were of fair quality. The first in the Spangles were very good, while the cock in the very highly-commended pen was the best in the class, but badly matched. *Polands* were very good, the medal in this section being awarded to a nice pen of Golden, which were, however, closely pressed by good Silvers.

In Black Red *Bantams* were some stylish birds, but many were scarcely fit for the show pens, owing to want of feather and condition. The first prize for Any other variety of Game was won by Piles and Duckwings respectively; the first in fair order, and the second out of feather, but very stylish. Rose-combed Blacks won in the following class.

The winning *Rouen Ducks* were very large and good in beak, especially the first. *Aylesbury* were failing in feather, but large and of good quality. The Variety class was interesting, every pen being noticed. The first were Widgeons, second Black, and all the rest White Decoys, very small and neat in form.

In the Variety class capital Crève-Cœur were first, and Houdans second. Single cocks were a really good collection; the first a grand La Flèche, the second a Buff Cochon. Pairs of hens were also well shown, and in this case La Flèche were again first, and Black Red Game second, the La Flèche cock taking the medal also.

Many of the young birds were forward and well shown, this being the case especially in the *Cochins*, where the first of the medals for young was awarded; the *Dorkings* were also very promising birds. *Brahmas* were not forward, if we except the first-prize Dark chickens, which pen contained a well-marked pullet; the second being Light birds, but though large they were rather raw. *Spanish* were moderately good, but *Game* only poor in the Red class, except about three pens, two of which were Brown Reds. In the Other variety class a grand pair of Yellow-legged Piles stood first, good Duckwings second. In *Hamburgs* there were not many good pens, with the exception of the winners; but in the Pencilled, both Gold and Silver, these were very good. The winning *Polands* would have looked quite as well with the fostering care of the old hen. In *Red Game Bantams* the first were in full feather and very stylish Black Reds, the second of that kind also being good. In the class for Any other variety the first prize and medal went to a pair of superb Piles, although young. In the next class Silver Sebrights were first, and Blacks second. *Turkeys* and *Geese* were good, but young, though they were very promising as regards size. In *Ducklings* first were a grand pair of Ayleburys, and second Rouens, two other pens of that variety being very highly commended. In the Variety class the first were Dark Red Malays, and the second Houdans. The two Selling classes contained fifty-four entries; there were many cheap lots, and several extra prizes were awarded in both classes.

PIGEONS.—*Carriers* stood first, and were single birds, the quality being only moderate. The first prize went to a neat Black hen, the second to a young Blue cock. *Pouters* were good, but there were only five entries, the first being a really good White, and second Black Pied, both coming up well in measure.

ment and general properties. *Tumblers* were a mixed class, but two Almond cocks bore off the honours, nothing else approaching them in winning properties. There were some good *Jacobins*; the first prize went to a Red cock, very good in all points, and he won the medal for birds of the parish; second came a Red hen, good in all points but flights, which were a little foul; and highly commended a Red hen, failing a little in hood. *Turbits* were a nice lot, and mostly noticed; first stood a small good Yellow, and second a grand Silver, with rather kitey bars. In *Fantails* Mr. Loversidge was again first and second, but the wind was too strong to show them to advantage. The first in *Owls* was a very good White foreign, and second a moderate Silver. The Variety class was large, and some good specimens were shown, the first being a most perfect Grizzled Frillback, second a Nun, and third a Red Barb.

RABBITS were shown in pairs, the Lops numbering ten entries; the first and second good in length and general properties, but the third, though large and good in other points, was rather short. Fourteen pairs were shown in the Variety class, and some of these were very good; the first an almost perfect pair of Silver-Greys, about half-grown; second Himalayans, good in most points, but a little mousey on the feet; and third two neat Belgian Hare Rabbits; several moderately good pairs coming in for high commendations.

MALTON PIGEON SHOW.

This took place on the 11th inst.

TUMBLERS.—1, Miss Seanoor, Leeds. 2, G. Eash. *che*, C. Anton, York. *hc*, Miss Seanoor.
POUTERS—1 and 2, J. Blanchard, Driffield. *che*, Miss Seanoor.
JACOBIANS.—1, J. Blanchard. 2, Miss Seanoor. *che*, C. Anton (2); Miss Seanoor; J. A. Conly, R. Sedale.
FANTAILS.—1, C. Anton. 2, Miss Seanoor. *che*, C. Anton; Miss Seanoor.
CARRIERS.—1, J. Alconly. 2, Miss Seanoor. *che*, C. Anton; Miss Seanoor.
TRUMPETERS.—1, Miss Seanoor. 2, J. W. Hild. *che*, C. Anton.
SPOTS.—1 and 2, J. Muckle, Malton.
TURBITS.—1, C. Anton. 2, Miss Seanoor. *che*, J. Alconly; J. Blanchard; C. Anton.
NUNS.—1, Miss Seanoor. 2, J. Blanchard.
BARBS.—1 and 2, Miss Seanoor. *che*, C. Anton; J. Alconly.
ANY VARIETY.—1 and 2, Miss Seanoor. *che*, J. Blanchard; C. Anton; Miss Seanoor (3); J. Alconly.
DOVES.—1, T. Elms. 2, Miss Hartley.

RABBITS—Longest ears.—1 and 2, T. Myton, York. Extra 2, R. Addison, Malton. *Any other variety*.—1, Miss H. Taylor, Malton. 2, H. Jones, Malton.

JUDGE.—Mr. Shaw, Newlay, near Leeds.

BIRMINGHAM BIRD SHOW.

This Show, which opened on the 18th inst., and will conclude on Friday, is held in the Exchange Rooms, New Street. The following are the awards of the Judges, Messrs. Barnesby, E. Sandell, jun., and A. Willmore:—

NORWICH.—*Clear Yellow*.—1 and 2, W. Walter. 2, J. Bexson. 3, J. Adams. *hc*, W. Shakespear. *Clear Buff*.—1, W. Walter. 2, J. Adams. 3, J. Bexson. *hc*, W. Smith.
NORWICH.—*Marked or Variegated Yellow*.—1 and 2, W. Smith. *Marked or Variegated*.—1, J. Bexson. 2 and 3, H. Simpson. 3, W. Shakespear.
NORWICH.—*Clear and Ticked, high colour*.—1, Brown & Gayton. 2 and 3, J. Adams. *che*, W. Walter (2). *hc*, R. Simpson. c, Hampton & Chamberlain.
Marked or Variegated, high colour.—1 and 2, J. Adams. 2, Brown & Gayton. 3, Hampton & Chamberlain. c, F. Schweiss.
NORWICH.—*Marked or Variegated Crested Yellow*.—1, C. Hillier. 2, F. Woodward. 3, J. Spencer. *Marked or Variegated Crested Buff*.—1, W. C. Simpson. 2, F. Woodward. 3, W. Shakespear. c, J. Riddam; F. Schweiss.
BECHAN.—*Clear and Ticked Yellow*.—1, J. N. Harrison. *Clear and Ticked Buff*.—1, Withheld. 2, J. N. Harrison.
LIZARD.—*Gold-spangled*.—3, F. Schweiss. *Silver-spangled*.—1 and 3, C. Greenwood. 2, Withheld.
CINNAMON.—*Jouque*.—1 and 2, J. Adams. 3, J. Bexson. c, W. Smith. *Buff*.—1 and 2, J. Adams. 3, R. Simpson. c, J. Bexson.
GOLDFINCH MULE.—*Evenly marked Buff*.—1, Hampton & Chamberlain. 2, J. Adams. 3, J. Bexson. c, F. Schweiss (2).
GOLDFINCH.—*Any other Class of Yellow*.—1, Withheld. 2, J. Bexson. *Any other Class of Buff*.—1, Withheld. 2, J. Gann. 3, F. Schweiss.
GOLDFINCH MULE.—*Dark Jouque*.—1, F. Schweiss. 2, Withheld. 3, Hampton & Chamberlain; J. Bexson. *Dark Mule*.—2, W. Smith. 3 and Equal 3, F. Schweiss.
SIX NORWICH CANARIES, IRRESPECTIVE OF COLOUR.—1, J. Adams. 2, W. Walter. 3, Rev G. Herbert. *hc*, W. Smith; F. Schweiss.
MISCELLANEOUS.—1, F. Schweiss.

BRITISH BIRDS.

GOLDFINCH.—1, W. H. Cane. *hc*, R. Pearson; J. N. Harrison. c, J. Brittain. **LINNET**.—1, J. N. Harrison. *che*, Rev G. Herbert. *hc*, R. Pearson. c, W. W. Elliott.
SKYLARK.—Prize, F. Schweiss.
BLACKBIRD.—Prize, F. Schweiss.
SONG THRUSH.—Prize, Hampton & Chamberlain.
STARLING.—Prize, F. Schweiss.
MAGPIE.—2, — Voigt. Equal 2, F. Schweiss.
JACKDAW.—Prize, Master J. Bell, Bradford.
ANY OTHER VARIETY.—Prize and *che*, J. Mallett (Wood Lark).

FOREIGN BIRDS.

RED-HEADED CARDINAL.—*Single*.—1, Miss M. A. Robinson.
ANY VARIETY.—**WAXILLS**.—*Pairs*.—1 — Voigt. Equal 1, F. Schweiss. *che*, — Voigt; W. Walter.
JAVA SPARROWS.—*Pairs*.—1, — Voigt.
COCKRETAILS.—*Pairs*.—1, Miss M. A. Robinson. c, W. Walter.
PARAKEETS.—*Australian or Broadtail*.—1 and *hc*, M. George. *Ring-necked or Indian*.—1 and *hc*, — Voigt. *che*, — Schweiss.
PARROTS.—*King*.—1, — Schweiss. Special 2, Mrs. Weeks. *Green or any other variety of Large, except Grey*.—1 and 2, — Schweiss. *Grey*.—1, Mrs. D. Staithforth. 2, — Selwicks. *che*, Miss Sprague. c, Miss Johnson.
COCKATOOS.—*Leadbeater or Rose-breasted*.—1 and 2, Miss M. A. Robinson. *hc*, W. H. Wood. *hc*, W. Walter. — Schweiss. c, — Voigt. *Lenon or Orange-*

crested.—1, M. George. 2, Withheld. *Any other variety*.—1, Miss M. A. Robinson. *che*, — Voigt; Miss M. A. Robinson.
FOREIGN BIRDS.—*Any other variety*.—Equal 1, — Voigt (Toucan); P. T. Warren (East Indian Lora). *che*, — Voigt (Glossy Starling and Mynor); W. Walter (Parakeet); — Schweiss; M. Roberts (Flamingo). *hc*, — Voigt (Indian Blue Bird and Australian Lora). c, Miss M. A. Robinson.
NIGHTINGALES.—*Prize*, B. Smith.
MARSH TIT.—2, E. Martin.

POUTERS, ANY OTHER COLOUR OR MARKINGS.

On the first day of January this year, there appeared in the columns of THE JOURNAL OF HORTICULTURE a short paper of mine upon the exclusion of this class of Pouters from some of our shows. Those remarks have led to a lengthened debate, partly conducted in this Journal, and partly in the pages of a contemporary.

The controversy seems now to have attained a definite form. It is self-evident that it is the North British Columbarian Society *versus* the Pouter breeders and fanciers of Scotland.

Mr. Wallace has replied, I presume, so far as he intends, and he is supported by a writer dating from Greenock, unknown to the fancy till his name appeared a few weeks ago. Mr. Stuart and Mr. Ruthven follow in the same "confusion worse confounded" style, each and all condemning me and those who agree with me, for supporting a class for "mis-marked" Pouters; but anyone would have supposed that after reading the early portion of the correspondence the true meaning of the debate would at once have been seen. Indeed, my first paper (see THE JOURNAL OF HORTICULTURE, 1st January, 1874) is so plain that a very young fancier might have understood it from the beginning.

The class in dispute, so far as I am concerned, is "Pouters, any other colour or markings," as headed at the commencement in THE JOURNAL OF HORTICULTURE, not "mis-marked" Pouters, which I neither keep, breed for, nor ever supported. Surely this is plain enough.

To Mr. Stuart's letter I do not reply, because it contains neither argument nor fact, but on the other hand shows a spirit to which I can be no party, and which does not sit gracefully upon a young and ever-changeable fancier, therefore I decline all further correspondence with him. Mr. Ruthven quite surprised me. I thought he would have sided with me out and out, as I have not known him for many years to be possessed of, or to have shown any one specimen that was not other than the standard-coloured birds; indeed, the "off-coloured" birds seemed to be his special favourites. But there is an insinuation in Mr. Ruthven's letter which I must notice. He says, "Mr. Ure and Mr. Huie are very extensive breeders of the Pouter class, and very enthusiastic fanciers I know, and from this very fact they must obtain in experimenting to produce fine standard colours an unusual number of mealies, chequers, and mis-marked birds, consequently there may be a strong desire to have classes to show them off." Now this is an insinuation which neither Mr. Ure nor I deserve; it will not be believed though put in print, and I cannot look upon it in any other light than unworthy of its author. I like all things put to the test, and I shall so treat this matter. From Mr. Ure's loft and my own combined, there are not one tithe of the "off-coloured" and "mis-marked" birds produced which some of the smallest Pouter breeders I know of turn out annually; and one thing is certain, which the show catalogues will prove—neither of us show them as some others do.

I hope I am now done with this controversy, and await the comments of my brethren in the Pouter fancy, not "a host" of those who know nothing about the peculiar class. One thing I am sure of is, that all committees of "first-rate" shows will have one or more classes for "Pouters, any other colour or markings." If not I must repeat that they will "not only be damaging the Pouter fancy, but quarrelling with their 'bread and butter.'"—J. HUIE, Glasgow.

[A letter from Mr. Ure on this subject shall appear next week.—Eds.]

COMING RABBIT SHOWS.

Bury and Cirencester have managed to clash this year, but of the two Bury is the better, having six classes against four of its rivals. Spanish, Angora, Himalayan, Silver-Grey, Any other variety, and Selling classes, with prizes of 10s. and 5s. form the prize list.

Cirencester has a class for the best Lop, Himalayan, Silver-Grey, and Any other distinct variety, with the same prizes as the last-mentioned Show. The Judge is Mr. Tegetmeier, who has all the arbitration to do.

Middleton holds its next Exhibition on September 1st. The classes for Rabbits are six in number, distributed in exactly the same manner as those of Bury, but with prizes of less value.

The Vale of Todmorden Show will take place on Sept. 5th. The classes assigned are similar to those of its two predecessors.

Long Sutton, on September 23rd and 24th, gives seven classes with prizes of £1 and 10s. to each, and an extra prize of two guineas to the best Rabbit in the Show. There is a class for

Lop bucks, and one for Lop does, one for Silver-Greys (buck or doe), and one for the heaviest. Then comes a class for "Any other pure breed (bucks)," and a like one for does follows. I regret to see this arrangement, for where five distinct breeds that are generally allowed a class each, are huddled up in one class, the Judge cannot be expected to do justice to them, particularly if there should be anything like a large entry, and as the prizes are rather higher than usual, such I suspect there will be. A sale class with the price unrestricted finishes this badly-arranged schedule, which I hope will be thoroughly revised before next year's Show.

A glance at any of the above-mentioned prize lists will show that committees are more liberal in the number of classes they give than hitherto; yet, as will be perceived, there is ample room for additions to the number. But though Rabbits may have more classes than they had formerly, are the prizes in these classes of sufficient value to encourage exhibitors to send their stock? I think not. Exhibitors, as a rule, do not care to send valuable Rabbits to a show where, though they may be almost certain of winning, the first prize is about 7s. 6d., well knowing that the entry fees and carriage to and from the show often takes nearly if not all of the prize money.

As an instance of the support given to exhibitions which will give liberal prizes, let me refer to the Leeds Ornithological Show, held in April last, when no less than 120 Rabbits were entered in four classes. Why? Because the prizes were worth the attention of fanciers, being a silver medal for first, and 10s. for second in each class, except the sale class, which had a silver cup for first, a silver medal second, 10s. third, and 5s. fourth. The consequence of this liberality was, that forty Rabbits were shown in this class alone. Here, then, is an instance of a show which, giving good prizes and well-arranged classes, secured itself one of the largest entries of the season.

Exhibitions after September are few and far between, but the Crystal Palace schedule will doubtless require a short notice.—A RABBIT FANCIER.

DRIVING AND UNITING SWARMS.

As "F. C." and others want to know which is "the best time of the day for driving and uniting bees," I shall here state that we have always found the afternoon or evening to be better for this work than the earlier parts of the day. After the labours of the day are over bees are at home, and may be driven hither and thither at will without molestation from the bees of other hives flying about. Of course, if bees are not at work they may be driven as quietly at 12 o'clock noon as at 6 p.m., but for those who have not their evenings to spare, let me say that bees can be easily driven in warm weather at any time of the day. In cold weather, and when they have been nesting for some time amongst the centre combs (and not at work), they are more difficult to drive. They are reluctant to leave their cozy quarters. In cold weather we feed the bees before we begin to drive them, by pouring half a pint of syrup over the combs and bees. In about fifteen or twenty minutes after they have been fed the heat of the hive, together with the gladness and noise of the bees, becomes very great. They are now easily driven. Even in the coldest months of winter bees thus treated may be readily driven into other hives. In very cold weather we carry them into a vinery or a room of a dwelling house when about to drive and unite them. All this is stated that bee-keepers may know and bear in mind that warm weather and warm hives cause bees to run better and faster when driving and artificial swarming are practised. In hot honey weather four minutes' drumming will be ample for an artificial swarm, and from fifteen to twenty minutes' constant drumming will drive nearly all the bees into an empty hive.

As to the best time of the day for uniting swarms I think there can be but one opinion—viz., about sunset. We frequently drive bees in the forenoon, and unite them in the afternoon. By feeding the hive to receive the bees some twenty minutes before the union takes place, fighting is prevented. Feeling thus, we throw the bees of the hive into a state of hilarity and joy. Dr. Cumming has told us that honey to breakfast makes people sweet-tempered. Perhaps this was said by way of banter. We all know that a child with a lump of sugar candy in his mouth is difficult to exasperate, and that bees after being well fed are not disposed to quarrel and fight. This, touching bees, cannot be too widely known and practised. As soils are prepared for the reception of seeds, hives should be prepared for the reception of bees. Inattention to this particular will be frequently followed by failure. As bees know each other by smell, I use and recommend minted syrup when uniting swarms. Success is certain if these conditions are complied with. By feeding bees at sunset, and casting a swarm amongst them twenty minutes after, we have never failed in uniting swarms, and very often without the loss of a bee. If bees united abstain from fighting for fifteen minutes at first, they do not fight at all. A union lasting as life is thus cemented.

Such is our practice and experience; but there are other ways of uniting swarms. Chloroform, a puff-bill, are resorted to in

this work of unions. Both of these when properly used produce prostration and unconsciousness amongst bees. They fall from their combs as dead bees, and may be safely united in their state of unconsciousness and helplessness. The use of chloroform and puff-bill is so hurtful and dangerous to bee life that I follow, and recommend others to follow, a more safe and merciful course.

As the honey hives of "F. C." are at one end of his garden, and his young stocks at the other, he seeks for advice how to proceed. He has not told us whether he wishes his stocks to remain where they are, or whether he wishes them to occupy the place of the old ones. It does not signify. He should drive all the bees from the old stocks into empty hives first, then bring the stocks and bees together at 7 o'clock p.m., and unite them as described above. There is but little risk at this season in changing the positions of hives in a garden, if all be moved at once; the bees could be taken to the stocks, or the stocks to the bees, or both on being united could be placed half way between the two stands, or in any other part of the garden. But let it be understood, if such change of position be contemplated and undertaken, all the hives must go at the same time. One hive left on a stand from which others were removed but a short distance would draw the bees that returned to the stand from their new position. We have known bees removed from one side of a dwelling house and from one side of a garden to the other side without injury, but then all the hives were removed at once.

The hive that gathered 10 lbs. of honey in one day belongs to Mr. Shearer, near Huntly, in the north of Scotland. The case was mentioned to stimulate the apiarians in the south. "They are far behind who cannot follow."—A. PETTIGREW.

THE HONEY SEASON.

It is difficult not to feel envious as one reads the accounts now coming in from many parts of the country telling of glorious harvests of honey, while no such plenty has blessed one's own vicinity. I will not say utter barrenness is our experience *per contra*, but it is as near to that as possible. I left home on the 18th of July for the Lizard district in Cornwall, and was absent three weeks. My bees at home had managed in the splendid comet weather to recover themselves somewhat, and honey was glistening in many cells, but evidently gathered with difficulty. On my return home three weeks later, hearing of abundant rains in many quarters, I hoped to find that my own bees had shared in the good luck reported from other parts of England. Not so, alas! on the contrary, my bees had fallen off unquestionably, breeding had quite ceased in most hives, and all was still as in September, that dreariest of months for bee-keepers. The cause of all this poverty in our country is that which has prevailed throughout this remarkable season—namely, the absence of moisture. Rains have fallen elsewhere in abundance, floods even occurring in some places; here nothing beyond a good shower occasionally from the 14th of April to the 7th of August, showing a drought unparalleled in this west English county. Grass is only just beginning to grow. The curious thing is, that only a few miles from us there has been a fair quantity of rain. Nevertheless, matters are certainly much better than they were last year. Then every hive was impoverished; now half my stock is sufficiently supplied with sealed honeycomb to survive the winter, and the rest will only require partial feeding. Moreover, I have actually harvested from two or three hives several pounds of honey.

Curiosity moved me to carry-off a "turnout" hive into Cornwall, as I did two years ago, the history of which hive was given in this Journal. I wished to see if they would do as well as they did then. They travelled well, and were full of brood all sealed-up at the expiration of my three-weeks holiday; but although the weather was generally fine, and heather was within reach as well as clover, the result was certainly no more increase to their stores than 3 or 4 lbs. of honey at the utmost! and yet I took down rather more bees than I did two years ago. They travelled well thither, but remembering how the heat of the train caused the collapse of the comb two years ago, we thought it advisable to destroy the bees the day before our return, save only the queen and a few workers. These were fortunately saved, as I found one of my hives which had recently swarmed minus a queen. Over these the rescued queen with all the brood was immediately put. I had the pleasure of seeing her majesty well received by her new subjects.

It is to be hoped that further reports may be sent in from other parts of England. I am curious to learn if in the great plains of Berkshire, Lincolnshire, or elsewhere, droughts have prevailed as largely as in our smaller Somersetshire levels.—B. & W.

OUR LETTER BOX.

YOUNG DORKINGS AT BISHOP AUCKLAND SHOW.—Allow me to inform you that I took first and second prizes for young Dorkings.—C. WIDDAS, *Houghton-le-Wear*.

BOOKS (W. B.).—Our "Poultry-keeper's Manual" gives all the essential information you need. If you enclose sixpence stamps with your address you can have it post free. (D. B., *Enfield*).—Our "Bee-keeping for the Many." You can have it free by post if you enclose five postage stamps with your address.

BRIDGEPORT POULTRY SHOW.—The first prize for Polish was awarded to Mr. Bloodworth, and not to Mr. Jones, as stated in the prize list, the birds of these exhibitors having been placed in the wrong pens.

POWLS' LEGS SCURFY (T. H. Hall).—Rub the legs with citrine ointment daily. You can obtain it of any chemist.

RAIN PRODUCTIVE OF FOOD (J. C.).—It is possible to have too much of a good thing, and just as we often long for sunshine in April and May, so we have wished and waited for rain for some weeks past. We are convinced it is as beneficial to the poultry as to the garden. You need only look at the grass run. Ten days since it was plain unrelieved brown; the passage of a chicken raised a dust, and the poor, dead, moulted feathers flew about without hindrance. You might as well look for animal life and food on a London gas-pipe as on the parched surface. Now there is a shade of green, the earth is pleasant to walk upon, and at daybreak the long voyages of discovery undertaken by the chickens will show they know food may be had for the seeking.

POWLS IN CONFINED SPACE.—EATING HOME-FATTED CHICKENS (A. G.).—We are answerable only for our own writing, that is enough for anyone. If you had written to us we could have told you, you could not rear chickens in the space you came. It was large enough only during the first fortnight. We advise you to future to "go in" for eggs. Perhaps you will say as one of our correspondents did lately, that "it is very hard to keep poultry and never to eat a chicken." We are by no means sure those who keep the largest number of fowls eat the most poultry. Provocative wisdom says, "The cobbler's wife is the worst-shod woman." You say there is such a satisfaction in eating that you have had something to do in producing. We will meet that difficulty. Have a small fattening-coop made. ("Fowls," by Bailey, page 96). Buy four or six well-grown, lean, but fleshy chickens, put them up, and fatten them yourself. You can do this at small expense. You have space enough, but mind the fattening chickens must not be in any place used by birds at liberty.

DEFECTIVE FOWLS (G. W.).—Get rid of the faulty birds at once. Every mouthful they eat is waste. "Poor little pets," as they are called, are the plague and bane of the poultry-yard. They eat as much as the best birds, and cannot make any return for it. Where only fancy is concerned, do as you please; but if you want to show a balance, you must forswear sentiment.

KEEPING FOWLS PROFITABLY (Sarah).—You must keep account of the food consumed, and strike an average. With such meagre statistics as you provide, we cannot do it. The condition of the birds, whether recently purchased, the nature of their run, the breed of them, all have to be taken into consideration.

AVOID DEFECTIVE STOCK (J. J.).—Never breed from a cock with a disqualifying fault.

WATERY SWELLING ON HAMBURGH'S EARLOBE (T. L.).—We were not aware any query had escaped us. We are sorry if it is so. The white skin is only the outer sac or covering. The lobe within is perfectly red. If you think it is a watery swelling, puncture it so that it will not show from the outside, and let the contents escape. If it increase much in size, wash it frequently with a strong solution of alum and water. It is very unusual for any hen to lay thirteen eggs in thirteen days. It has not been very uncommon for a Spangled Hamburg to sit. Our experience in Black Hamburgs is not as great. We have, however, known a Pencilled hen sit and rear a brood.

DARK BRAHMAS (Changing).—Do not give up your Brahmas. They and Cochins are the only birds that will suit you, because they are the only breeds that respect fences. The non-sitters—Hamburghs, Crève-Coeurs, Houdans, and Spanish "fly like Pheasants." If you kept any of these you must cut one wing close, and even then we believe they would strangle over the fence.

FOWLS FOR LIMITED SPACE (G. H.).—Some fowls are not fitted for a confined space, and it is probable those you describe as barndoor are of the number. The Game cock has caught the disease from the hens. Do they get the sun? We should prefer the light sandy soil to the ashes for the flooring of the house. We should alter the feeding by giving ground oats or barley meal slacked with water in the morning, house scraps at mid-day, evening same as morning. Give them some lettuce, especially those that are gone to seed, and let them have dust heaps. On these conditions you can choose your breed. Keep twenty-four fowls in your space. They should be Brahmas or Cochins.

BRAHMAS BROODY (Novice).—Light Brahmas are not more prone to sit than any other birds, and you must, as in any other case, consider that the ordinary course of things cannot be altered, even though it should interfere with our wishes or arrangements. Broodiness is their rest. It is the sign of puberty, and their growth ceases; but beauty of form and plumage, excellence of condition, and general merit remain, and cannot fail to be appreciated. If they cannot be winning chickens on account of their precocity, they will be beautiful adults next January and February, because the blush of youth will remain upon them.

PIGEONS NEGLECTING TO FEED ONE OF THEIR YOUNG ONES (G. C.).—Pigeons will frequently do this. There is no cure if the birds be well supplied with food. Perhaps they are aware that one bird is too weak to live, and treat it as the Huddos are said to treat their sick or aged relatives—leave it to die.

WHITE CLOVER (A. J. W.).—Bees prefer the white before any other species of clover. A row of it between rows of peas and beans in your garden would not injure them, but the clover would be productive of very little honey in such a situation.

EMPTY BEE HIVES IN GARDEN.—FOLLOWING A SWARM (Morning Watch).—It is not illegal to have hives with comb in them left in a garden after the bees are dead. No one can legally follow a swarm of his bees on to another person's land. He should go to that person and ask permission to recover the swarm.

UNITING SWARMS (B. B.).—We cannot approve of putting so many swarms into one box in June and July. Probably you would have had more honey to take now, and more stocks for another year, if you had kept your swarms separate. Though you may have failed to find the queens cast out of Taylor's

hive, they were, doubtless, destroyed. We think that the 32 lbs. gained in the time mentioned by you is very good, and that as you are desirous to have some honey your better way will be to remove No. 2 box, and take all the honey you can get from it, then replace it on the hive. If some of the centre combs are filled with brood they could remain undisturbed, by cutting out the honeycomb only. If the weather become fine your bees should gather from the beehive 30 lbs. more. If they do, you may have a second harvest of honeycomb in about a month.

VERMIN ON CANARY (Yais-y-Cum).—Mr. Brent says—"The red mites or cage bugs are a species of Acarus. They live in the cracks and joining of the cages, and at night sallies forth to suck and annoy the birds; they multiply in great numbers about the cage and in the nests, tormenting the poor birds, causing the death of the young, and frequently of the old birds likewise. Some fanciers have recommended the use of the Persian insect-destroying powder; but I have not tried it, finding that by thoroughly cleaning the cages, saturating the cracks with linseed oil, and then filling them with flowers of sulphur, and dusting sulphur among the birds' feathers, also by cleaning the nest and sprinkling powdered sulphur in, that I can get rid of these pests. Wherever any floury or mouldy appearance is noticeable about the joints or crevices of the cage, these tormentors to the birds may be suspected, and no time should be lost in giving them notice to quit."

METEOROLOGICAL OBSERVATIONS,

CAMDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W.; Altitude 111 feet.

DATE.	9 A.M.					IN THE DAY.					Rain.
	1874. Aug.	Barom. at 32° and Sea Level.	Hygrome- ter.		Direction of Wind.	Temp. of Air at 1 foot.	Shade Tem- perature.		Radiation Temperature		
			Dry.	Wet.			Max.	Min.	In sun.	On grass	
	Inches.	deg.	deg.		deg.	deg.	deg.	deg.	deg.	In.	
We. 12	29.750	56.9	52.3	W.	59.9	63.6	48.0	120.5	46.7	0.182	
Th. 13	29.465	59.2	59.8	S.	60.5	66.2	55.7	93.8	54.8	0.107	
Fri. 14	29.447	59.8	56.0	S.W.	59.8	68.0	53.3	116.2	51.1	0.095	
Sat. 15	29.939	63.2	55.5	W.	59.0	68.8	49.2	14.0	48.1	—	
Sun. 16	30.105	65.4	60.2	W.	60.0	73.0	52.3	120.8	51.5	—	
Mo. 17	30.171	62.0	56.3	S.W.	59.7	72.0	49.5	114.8	47.3	—	
Tu. 18	30.232	66.6	58.9	S.W.	59.8	73.1	47.4	111.6	45.8	—	
Means	29.910	63.2	57.0		59.8	70.1	50.8	113.1	49.3	0.319	

REMARKS.

12th.—Fine morning, and moderately so till 5 P.M., when it clouded over; rain at 6 P.M., and wet night.

13th.—Showery till 4 P.M., after that time fine.

14th.—Stormy and boisterous all the fore part of the day, the latter part fine and less windy.

15th.—Morning and noon very fine; a very pleasant day, scarce any wind.

16th.—Fair all day, but rather cloudy and dull.

17th.—A very pleasant enjoyable day, and starlit night.

18th.—Another very fine day; much warmer in the after part of the day. The 12th, 13th, and 14th were stormy uncomfortable days, the wind on the 14th being particularly boisterous; the remainder of the week very pleasant. The mean temperature at 9 A.M. about 1° above that of the previous week.—G. J. SIMONS.

COVENT GARDEN MARKET.—AUGUST 19.

A GOOD supply and the fine weather favours the in-getting of a large quantity of Plums and Pears, a considerable portion of which goes to furnish the markets in the north and midland counties. Rough vegetables have much improved under the recent rains. Hot-house Grapes, both Black and Muscats, are plentiful. Peaches and Nectarines from the open walls sell at 3s. to 4s. per dozen.

FRUIT.

	s. d.	s. d.		s. d.	s. d.
Apples.....} sieve	1	0 to 1	Malberries.....	½ lb.	1 0 to 0 0
Apricots.....} doz.	2	0 4	Nectarines.....	doz.	5 0 10 0
Cherries.....} ½ lb.	0	0 0	Oranges.....	½ 100	12 0 24 0
Chestnuts.....} bushel	0	0 0	Peaches.....	doz.	4 0 15 0
Currants.....} sieve	4	0 0	Pears, kitchen.....	doz.	0 0 0 0
Black.....} doz.	3	0 0	Dessert.....	doz.	3 0 3 0
Fire.....} doz.	3	0 4	Pine Apples.....	½ lb.	2 0 6 0
Filberts.....} lb.	1	0 1	Plums.....	4 sieve	3 0 4 0
Cobs.....} lb.	1	0 1	Quinces.....	doz.	0 0 0 0
Gooseberries.....	qunt	0 6 0 9	Raspberries.....	lb.	0 0 0 0
Grapes, hot-house.....	lb.	1 6 0 6	Strawberries.....	½ lb.	0 0 0 0
Lemons.....	½ 100	16 0 24 0	Walnuts.....	bushel	10 0 16 0
Melons.....	each	3 0 6 0	ditto.....	½ 100	3 0 2 0

VEGETABLES.

	s. d.	s. d.		s. d.	s. d.
Artichokes.....	doz.	8 0 to 6 0	Lettuce.....	doz.	1 0 to 2 0
Asparagus.....	½ 100	0 0 0 0	Mushrooms.....	pottle	2 0 3 0
French.....	0	0 0 0 0	Mustard & Cress.....	punnet	0 2 0 0
Beans, Kidney.....	4 sieve	3 0 4 0	Onions.....	bushel	3 0 5 0
Broad.....	bushel	4 0 0 0	Pickling.....	qunt	0 0 0 0
Beet, Red.....	doz	1 0 8 0	Parsley per doz. bunches		2 0 4 0
Broccoli.....	bunch	0 9 1 6	Parsnips.....	doz.	0 9 1 0
Cabbage.....	doz.	2 0 3 0	Peas.....	qunt	1 0 1 6
Capsicums.....	½ 100	0 0 0 0	Potatoes.....	bushel	3 6 0 0
Carrots.....	bunch	0 6 1 0	Kidney.....	do.	4 0 8 0
Cauliflower.....	doz.	3 0 6 0	New.....	½ lb.	0 0 0 0
Celery.....	bunch	1 6 2 0	Radishes.....	doz. bunches	1 0 1 6
Coleworts.....	doz. bunches	2 6 4 0	Rhubarb.....	bunch	0 9 1 0
Cucumbers.....	each	4 0 1 0	Salsify.....	bunch	1 0 0 0
pickling.....	doz.	0 0 0 0	Scorzoneria.....	bunch	1 0 0 0
Endive.....	doz.	2 0 0 0	Sea-kale.....	basket	0 0 0 0
Fenel.....	bunch	0 8 0 0	Shallots.....	lb.	0 3 0 0
Garlic.....	lb.	0 6 0 0	Spinach.....	bushel	2 0 8 0
Herbs.....	bunch	0 3 0 0	Tomatoes.....	doz.	1 0 3 0
Horseradish.....	bunch	3 0 4 0	Turnips.....	bunch	0 3 0 0
Leeks.....	doz.	0 3 0 0	Vegetable Marrows.....	doz.	2 0 3 0

WEEKLY CALENDAR.

Day of Month.	Day of Week.	AUG. 27—SEPT. 2, 1874.	Average Temperature near London.			Rain in 43 years.	Sun Rises.		Sun Sets.		Moon Rises.		Moon Sets.		Moon's Age.	Clock before Sun.	Day of Year.
			Day.	Night.	Mean.		m.	h.	m.	h.	m.	h.	m.	h.			
27	Th	Tynemouth Horticultural Show.	73.3	49.1	61.2	12	6	45	57	6	27	7	29	4	Days	m.	23
28	F	Sandy Horticultural Show.	72.7	49.7	61.2	19	8	5	51	6	41	7	51	5	0	1	240
29	S		71.2	47.6	59.4	16	9	5	52	6	55	7	29	7	17	0	241
30	Sun	13 SUNDAY AFTER TRINITY.	74.5	48.2	61.3	11	11	5	50	6	9	8	49	8	18	0	242
31	M		71.5	47.4	59.4	17	12	5	43	6	24	8	13	19	19	0	243
1	Tu	Partridge Shooting commences.	71.1	47.5	59.3	21	14	5	46	6	41	8	47	11	21	after	244
2	W	Royal Horticultural Society, Dahlia Show, Fruit, Floral, and General Meeting.	71.0	47.6	59.3	19	13	5	43	6	11	9	after.		21	0	245

From observations taken near London during forty-three years, the average day temperature of the week is 72.2°; and its night temperature 48.1°. The greatest heat was 85°, on the 1st, 1843; and the lowest cold 32°, on the 20th, 1859. The greatest fall of rain was 1.59 inch.

COMPARATIVE HARDINESS OF FRUITS.



ALLOW me to call the attention of amateurs and others to the fact that there are among fruits some varieties that are comparatively hardy and productive of their kind. They can scarcely be made to fail in the worst of seasons and with the worst of treatment. Some of them, too, are fruits of good quality; I will mention two or three that are on my memory, and ask others who are experienced to add to their numbers. First and most familiar is Louise Bonne of Jersey Pear. Whoever saw a fair-sized tree of Louise Bonne that did not bear fruit? Last year it was especially conspicuous here. No other Pear of good quality in the garden, excepting those trained on walls, bore half a crop, the bloom being killed by frost; but Louise Bonne stood it bravely in spite of spring and midsummer frosts, and brought its handsome fruit to the greatest perfection amid the drenching autumn rains. Another fruit that was noticeable too amongst the general scarcity was Coc's Golden Drop Plum. It is always the same. Let all other Plums fail, there are always at least a few fruit on Golden Drop, and generally a large quantity. It is the best of all late Plums, and one of the hardiest. It succeeds tolerably well on a north wall, where the sun scarcely ever reaches it. Of course it has not so good a flavour there as when grown on an east or west wall, but it generally bears a quantity of moderately-good fruit that will at least do for kitchen use, and which, after a fine autumn, is not to be despised in November and December for the dessert.

I will name one other fruit, which, perhaps, is not so well known as those already mentioned, but I say the sooner it is the better for those who wish to provide for bad seasons, and they are all bad now-a-days. We get a glimpse of something very like summer weather in March or April, and we begin to count our chickens, but before the hatching season is fairly come we find the mercury in our thermometers nearly congealed, and our eggs are addled. We want fruits that will blossom and set and swell in spite of a few degrees of frost. Such a one, according to my experience, is Crawford's Early Peach. For three successive seasons, when all other kinds have been comparative failures, this has borne a heavy crop. I shall be very glad if others can speak as well of it, for I am inclined to plant it largely. It is a light yellowish-fleshed Peach of good quality, and ripens in the beginning and middle of August. It is, I believe, of American origin. Royal George Peach, on the other hand, I do not consider a desirable kind to plant outside, except in the most favoured localities. Of course it cannot be denied that it is a good Peach where it does well; but it is subject more than any other kind to all the maladies that a Peach is heir to, including mildew, gumming, and loss of limbs from some unknown cause; and besides, I do not think its flowers are so hardy as those of some other kinds.

Where one goes to the expense of covering walls with textile material I am inclined to think *frigi domo* is the

cheapest in the long run; the cost at first is great compared with netting, but with care it will last three times as long, and is certainly much more effectual. A broad temporary coping is a first necessity; mine is 13 inches wide, I wish it had been 3 feet.—WILLIAM TAYLOR.

ROSES.

I, AMONGST thousands, enjoy a weekly treat in reading "our Journal," yet never have a word to offer in return for the many pleasant jottings of others.

The remarks of our friends and real guides, such as Mr. Camm and Mr. Peach in last week's Journal, constrain me to offer a word to prevent misapprehension by many amateurs.

Confusion is often caused by confounding the mere flowers of a Rose tree and the tree itself. Whilst Mr. Radclyffe may be alluding to the tree, our exhibiting friends may dwell solely on the flower, and so mere amateurs get confused. And in like manner our best nurserymen unconsciously lead us astray.

Mr. Camm may buy Baron Chaurand Rose from Mr. W. Paul, or Mr. Cant, or Mr. Charles Turner; so he has not thought of all possible good nurserymen where this may be had; but I am bound to say I have patiently tried this Rose, and found it unable to bloom under the strong winds, wet weather, and cloudy skies of this neighbourhood.

I advise amateurs to well consider the meaning of strong recommendations of exhibiting Rose-growers. For instance, all of these speak highly of such Roses as Etienne Levet, Countess of Oxford, and other seedlings of Victor Verdier Rose, and one of our best Rose-growing nurserymen speaks of the former as taking rank with Alfred Colomb and Charles Lefebvre. Now this is a great mistake in the general sense as applied to amateurs who do not exhibit. Such seedlings, as well as Marquis de Castellane, never will rank with such Roses, for they are scentless, and this is a point of more value in a general sense than exhibitors count on. Of Madame Lacharme I had plants (standards) of Lacharme's own raising, and I am quite satisfied it will never take the rank of many Roses that we have had for years. This will not do as a first-rate Rose in any sense I feel satisfied, and Mr. Camm's first year's verdict will also be his last, I am of opinion. No doubt, in the absence of large whites, or even a large light good blush, it may be used until superseded; but I am clear that Mlle. Bonnaire or Souvenir de Malmaison are better on the whole as blushes, and Boule de Neige, though smaller, much better as a pure white.

My situation and climate are mild in winter, so that Teas need then little or no protection, and I have lost none out of many in winter for the last five years; yet the late spring and summer were most severely trying by strong continuous cold wet winds, and low general temperature arising therefrom. This will give amateurs a general idea of the situation and circumstances here, and prepare them to properly estimate my experience of the best twelve Roses, after patiently trying nearly all in cultivation. They are Madame Victor Verdier, Alfred Colomb, La France, Marie Baumann, Charles Lefebvre, Baronne Rothschild (no

scent), Gloire de Dijon, Prince Canille de Rohan, Abel Grand, Dupuy-Jamain, Louis Van Houtte, Boule de Neige (little scent).—*AMATEUR, Aigburth, Liverpool.*

WHAT ARE GARDEN HOUSES AND PITS?

WITH a view to elicit something like an editorial opinion on a subject in which writers on gardening seem decidedly to differ, I ask, Is it right to call a glass structure divided into compartments one house; or ought it to be named according to the number of its divisions? I ask this question without the least intention of cavilling or finding fault with those who consider a number of vineries, pinneries, or the like as one. My object is simply to obtain something like uniformity, for although I have been in the habit of considering every compartment an individual house in garden phrase, I am not by any means sure that I am right. I may be told that a house of another kind may be divided into any number of rooms and still be only one house, but this definition hardly applies to glass structures devoted to horticulture; and I presume as a body we have the same privileges that other classes have of making laws for ourselves, and consequently of deciding what a certain term implies in garden vernacular. Taking two terms for structures met with in every garden of note, some understanding ought to be come to as to what they respectively mean—houses and pits.

Beginning with pits, I find a great difference of opinion, some calling every glass structure having a fermenting bed in it "a pit," no matter what its size is; others limit the term to a smaller description of building. Perhaps it may appear presumptuous for me to say that I have been in the habit of calling every structure a house which has a legitimate pathway into or through it, and only such smaller enclosures as have no such pathways nor modes of ingress and egress for visitors, I should call pits. At the same time they must not be moveable but fixed on a foundation of brick or stone, or otherwise secured to their position to entitle them to the name of pits; while those of a moveable kind might be termed frames, limiting the latter name to such as are moveable as a whole, but not to include such structures as are prepared to be taken to pieces for removal at the expiration of a tenancy.

Coming now to the houses, assuredly it must be wrong to call a range formed into a number of compartments by divisions one house, even where all the compartments are devoted to the cultivation of one kind of fruit, or one description of plants, as is done in the description of the noble vineries at Longleat, in a recent number of *THE JOURNAL OF HORTICULTURE*, wherein it is stated the fine span-roofed house of 216 feet long by 32 feet wide, is divided into three compartments. Would it not be more fair to say there were three houses? for similarity of build is not enough to entitle all three or more to be called one, otherwise in many places ranges of several hundred feet might claim the same distinction, for outwardly the line of roof and general contour is the same throughout. Perhaps it may be urged that when a number of houses are all devoted to the cultivation of one kind of fruit; for instance, Grapes, the terming them one house is applicable or excusable, but I hardly think it is.

I would also ask some of your many correspondents to inform us where the largest vineries are to be found. If I am not mistaken, some one has described those at Clovenfords (Mr. W. Thomson's), as being even larger than that at Longleat, assuming it may be regarded as one, which I am unwilling to do. I may be wrong as to the size of Mr. Thomson's vineries, as I have not seen them, but I have seen other large houses, and as far back as 1860 described two at Mr. Meredith's, Garston, near Liverpool, one being planted with black Grapes the other with white, and each house was 144 feet long by 32 feet wide without any division. Subsequently, some half dozen years ago or more, I found that Mr. Meredith had erected two more vineries still larger than the first, being, I believe, upwards of 200 feet long and 32 feet wide; these were also without divisions. With the exception of two glass houses near Maidstone, those last mentioned at Mr. Meredith's are the largest houses for fruit-growing that I have ever seen; and in point of area occupied they were, perhaps, larger than the Maidstone houses, one of which was 387 feet long, and the other 377, both being 16 feet wide inside. One of these was occupied entirely with Peaches, the other partly with Peaches and some Grapes. The houses last referred to are what are usually called "half-span;" a short north light being united to a steep front one, gave more roof than is usually the

case with houses of greater width. All these houses are undivided, and consequently cannot be described otherwise than as one house. Larger houses may exist, but I have not seen any devoted to fruit-culture that exceed these; nurserymen, however, sometimes have larger plant houses. Some of the largest and in other respects fine houses of this kind that I have seen, are at Messrs. Smith's nursery, Worcester, but I forget the precise dimensions. They were each devoted to some special purpose, as a Rose house, an orchard house, and a house for hardwooded plants.

What, then, constitutes a house as usually understood when the term is applied to a glass structure? And if every compartment is entitled to that name, might not the distinction of "a series of houses," be applied in some of those cases where the singular number only is used?—*J. ROBINSON.*

NOTES ON LIFTING FRUIT TREES.

ROOT-PRUNING fruit trees dates from a period anterior to that of "lifting" them biennially or triennially, in order to continue them fruitful, but of a manageable size in a small space. The founder of the system was the veteran pomologist and rosarian, Mr. Rivers, of Sawbridgeworth, who in his "Miniature Fruit Garden," seventeenth edition, tells us in the introduction that his "attention was drawn to the benefits fruit trees derive from root-pruning and frequent removal, about the year 1810." This will undoubtedly give us the date of lifting, and, I think, of systematic root-pruning also; for though we have root-pruning alluded to before, so meagre were the details that no one could tell upon what subject to act, nor where to begin and end. The cutting-off a few roots was all that was considered necessary to lessen the growth of wood and induce fruitfulness. Our nurserymen from a remote date have, no doubt, been root-pruners and lifters of fruit and other trees in the course of business, quite as much to keep them with good roots and saleable as for any other purpose, they being unconscious of the effects on the fruitfulness of the trees. Mr. Rivers was the first to reduce root-pruning to a system. McIntosh certainly mentions "a rational mode" as adopted in the gardens of Lord Mansfield in Perthshire, "by cutting the roots of the trees nearly to their stems," but gives no date, and mentions it as an "adoption," not invention. The first notice I remember of seeking fruitfulness by acting on the roots is by Evelyn; but the "paring" of the roots we can only conclude to have acted by the disturbance at their origin tending to the emission of fresh fibres, on the presence of which near the surface depends fruitfulness.

Lifting, which tends to multiply roots by preventing the formation, or at least the continued extension, of the thick and fibreless roots with a tendency to go down into the cold, wet, unameliorated soil, appears the most rational, and, what is better in practice, the most effectual mode of promoting fruitfulness; but we must not practise it without discrimination, for it should not be forgotten that there is diversity of root as well as disposition and form of head or branch. Some trees or stocks have naturally fibrous roots put forth at and near the stem. Such they may have when very young, yet these fibrils soon enlarge, becoming thick and long with the fibres at their extremities; hence these are not fitting subjects for lifting, as from the character of the roots the operation is attended with, if only moderately distantly practised, great retardation of growth and considerable loss of vitality, not unfrequently proving fatal. Instances of these descriptions of tree or stock are the Crab and Apple from pips, the Pear, and the Cherry. Lifting if practised upon them seems not to be attended with any good result. It unquestionably tends to promote their fruitfulness, but the roots would appear not to be multiplied in sufficient numbers to cater for the increased crop so as to permit of their attaining a full size; the fruit for some time after the operation being considerably less in size though greater in quantity than on subjects not having their roots interfered with after planting. Lifting and root-pruning are not, so far as I have experience, nearly so well adapted for them as for the other description of trees, those of a much more decided surface-rooting and fibrous character.

Lifting, however, frequently resorted to, with trees on free stocks—i.e., the Crab, Pear, and Cherry, gives a check to growth greater than is experienced by trees on the "dwarf" stock, the former being longer in recovering from the effects of removal and consequent loss of roots. The trees mostly show the effect of removal by an attempt at fruitfulness; I say

attempt, because the result does not warrant our saying more, the fruit being small, and no sooner are the roots again in possession of the soil than they depart from the fibrous character given by the lifting, and strike out long in quest of nourishment, soon becoming thick and fibrous. At the same time as the roots extend considerably the head commences to make long shoots, which no amount of stopping will restrain. True, the head may be kept in reasonable bounds by pinching or stopping, but the trees will not form fruit buds; on the contrary, they will exhibit the desire to grow by putting out an infinity of spray. It is the nature of the tree, albeit the root, to grow in that way, and who can control Nature? Is it not better with subjects of this kind to allow the branches to extend, suffering no pruning nor disturbance of the balance between the roots and branches beyond what is necessary for the proper disposition of the branches? Should we not secure a greater, finer produce, and earlier than if the trees were subjected to frequent manipulation of the shoots in summer and of the roots in winter, allowing them to grow not restrained of necessity, no pruning whatever being practised but what is absolutely necessary to keep the head open for the due admission of light and air, and to secure the form of tree wished? "Well, the trees will become standards that may not be grown at less than 24 feet apart, giving but seventy-five trees to the acre!" "Think you not that these seventy-five trees, which may yield their twenty bushels per tree, will not afford as good a return as the same kind of trees at half the distance apart, or 12 feet, 302 trees root-pruned and summer-pinched? Yes, that they will, and double, both in quality and quantity." I have seen both Apples and Pears on the "free" stock, dwarfed with a result characterised only by sterility or insignificant fruit.

There are some kinds of Apple and Pear which on the "free" stock are prolific at an early age; they yield as fine or finer fruit, and are as manageable as those on the dwarfing stock. But a majority are so free in growth, their tendency so in unison with that of the stock as to be ill-restrained, the very act of restraining them by pruning causing the head to become thick and stunted, just as if the tree had in the first instance been suffered to become a large tree, and then the branches sawn off to what they are, the spray upon them being the result of the removal of the head. No tree on the free stock makes shoots approaching a yard long, without in the next year from almost every eye starting a short stubby shoot crowned by a tuft of leaves, a spur, and in due course a fruit bud. Shorten such a shoot one or two thirds its length, and it will in the following year put out from a majority of the eyes shoots of considerable strength, scarcely any having the short stubby spur type, and not unfrequently the shoots so monopolise the sap that the eyes below them remain dormant. So convinced am I of the injurious effect of severe pruning upon trees on the free stock, and of root-pruning except under special circumstances, that I feel justified in thus protesting against the practice.

Without pruning the trees would grow wild; this I know. The pruning should be of a kind to prevent this, and no more. Encouragement should be given to the spurs, their formation and maturation, and not to growth for no possible purpose but to be cut away, hoping that spurs may result. Vain hope! The tree is bent upon growth, refuses to be restrained; the more it is cut at the more it will grow. Root-prune it and obtain fertility. Praise this of fruitfulness. In a year or two the roots will have recovered; they will fashion the head again after their kind, the growth in a few years being almost as free as ever. Why, what is it that necessitates pruning? Culture—man making the tree assume a form upon a wall or trellis contrary to its natural habit, training the shoots horizontally when the natural habit is to grow upright or obliquely. This is one reason certainly, and another may be said to be in removing such shoots as interfere with the spurs and fruit by depriving them of light, air, and nutrition. But are there none other? Yes, there is one more, and may be others, one very often lost sight—limiting them to a space altogether inadequate to that which their growth demands. Do we not often see trees that, whilst growing and covering the space allotted to them, progressing in growth and fruitfulness each succeeding year after establishment, no longer to do so when the elongation of the branches ceases? The branches become spray instead of clusters of spurs, two or more crops of the spray requiring to be removed in a season. Think you it would be so were the branches allowed to extend—that barrenness would ensue, root-pruning be necessary, and not rather that this

extension would result in fruitfulness? One-half the ills of fruit trees are due to our not giving them what their nature requires. It is all very well to dwarf a tree. It takes up less space, enables us to have greater variety, but we should discriminate with what and upon which subjects we act. Free stocks mean large trees. The Crab is a tree, and so is the Pear, also the Cherry. Stunted and dwarfed they may be by frequent destruction of the roots, by cramping them, and by growing in a starving soil, but they will give poor small fruit. It cannot be said that making them bear brings quality and size. Nothing of the kind takes place. At the best they are bad rooters, and in consequence are not equal to the support of a mass of growth suddenly converted into spurs for blossom or fruit.

Numerous instances might be quoted as coming under my observation of the utter inutilty of a systematic persistence in lifting and root-pruning young fruit trees on the free stock; but I will content myself by naming two, the one relating to young trees, and the other to aged trees. In the case of young trees I may state that I had for some walls for Pears, which it was desirable to cover as soon as possible, trained trees of large size having a spread of branches of from 12 to 18 feet. They were well-furnished trees, and in a bearing state, and had from frequent removal—every second year, capital roots, and all took well. They gave a sprinkling of fruit the next three seasons, very small the first, a little better the second, and better the third season after planting. They had recovered the last planting, and made shoots characteristic of the roots. The growth was thought to be too free, and lifting being resorted to, opportunity was afforded of noting the runaway nature of the roots, and the absence of fibres near the stem, very few being emitted from the thick roots cut in the late removal, a few only being put out from their extremities, and those had become already comparatively thick and long—wonderfully so in so short a time. Growth the following year was poor, some trees making very small and few leaves, and the blossoming was weak, no flowers setting, or, if any did, they dropped off prematurely.

These trees were ten to twelve years from the graft, had been lifted every alternate year up to seven, and then in the third. If lifting causes fruitfulness, why did it not do so in this case? I admit the want of fruitfulness to be counteracted by the lifting; and though the removal did cause the formation of fruit buds in the season following the lifting, the roots had made such poor progress as to be unable to afford nutriment for and bring to a full size the resulting fruit. It could not be due to any other cause than lifting, for trees on the same stock and of the same age bore plenty of fine fruit. I have noted the like result from Apples and Cherries on the free stock—the year after removal the trees are scarcely able to exist; and notably I may allude to Cherries and some Pears putting out a few leaves, and after a short time drying up. Last autumn we lifted about two hundred, some on the free stock and others on the dwarf stock. They were in both instances large trees, and were lifted because they had been planted too deeply, a not uncommon error in planting. Probably they had been planted eight or nine years—not for a less time than the first. The difference in the rooting of the two stocks was very remarkable. Those on the free stocks it was impossible to move with more than a few thick roots without a particle of soil; those on the dwarf stocks were in every instance moved with balls of earth, and numbers of feeders beautifully fresh and white emanating from the main root-stem at, or a very little below, the surface of the soil. The difference in the growth it is scarcely necessary to note. Those on the free stock are barely alive; three Pears out of about fifty trained trees and the same number of pyramids have not put out a single leaf, the delinquents being a Beurré Giffard and Marie Louise, a Beurré de Capiaumont being now in full blossom, not having put out a leaf until after midsummer. All on this stock (free) are no more than alive: they blossomed, or strove to do so, abundantly, but failed. What a different prospect those on the dwarf stock present! All have made abundant foliage, short stubby shoots, and are carrying fruit; not so much, perhaps, as would have been the case had they not been lifted, but enough to show both in foliage and fruit the advantage of rooting and feeding possessed by the dwarf stock over the free, both in the Apple, Pear, and Cherry.

The best example of the effects of root-pruning a large free stock is a natural one—the Crab itself—blown over by a high wind, the roots being broken off on one side, and on the other partially. This tree the year following had a hard struggle for

life, for not only were the roots upheaved on one side, but they were partially or wholly broken at the other. It managed to blossom and to put forth its leaves, sufficiently so for the conversion of almost every bud into a fruitful state, for the year following, or second after the natural lifting, it bore an immense number of fruit, very small indeed, even for Crabs. No growth of note was made in either of those years; but along the central branches (which were, from the throwing-over of the tree, horizontally placed), some knobs or excrescences appeared, and from some of them a small shoot was noticeable. In the season following, from those knobs issued shoots which in three seasons have made 9 to 12 feet of perpendicular height, some almost at their base as thick as my wrist, and though so strong they are not unfruitful—in fact, large fine Crabs are produced.

This Crab tree is an example of the whole of my observation and experience in root-pruning and lifting Apples on this stock, and all fruit trees on the free stock. Bringing the branches into a horizontal position causes the upright sappy shoots, which are such a plague in all cultivated trees on walls, trellises, &c. Their removal answers only to confine them to a given space; it does not hasten, but renders more distant the bearing, convincing me that trees on the free stock are not for small gardens where they cannot attain their full proportions. The very act of restraining them, though inducing temporary fertility, renders them more barren, and instead of causing spurs to be formed, young strong growths are made, and the tree, on being root-pruned, appears as if resuscitated; fresh roots and new shoots being formed, which monopolise the sap, the old becoming enfeebled, decaying slowly but surely, and fruit shows itself, not on the old, but on the new parts.—G. ABBEY.

THE ROSE ELECTION.

TIME draws on for the calling-in of the voting papers. I should wish to get the returns printed if possible in the last week of September. As there is a large amount of labour in the summing-up, I shall be glad to have the returns from all intending voters as soon as possible. I propose to keep the poll open till Saturday the 5th of September, but I shall be grateful to have the returns as soon as possible. Often they are informal, and necessitate my replying, which delays the whole.

The question I again give: Name what you consider the best fifty Roses in cultivation (this, of course, includes any Rose in commerce of whatever kind), and underline the best twenty of these fifty.—JOSEPH HINTON, *Warminster*.

BEDDING GERANIUMS.

DR. DENNY and myself are anxious to get up some good prizes open to everyone for bedding Geraniums, subject only to the condition that the raiser's name be attached to each plant. Will any of my friends assist us? Any contributions to this object will be gladly received by me, and the names will be published in the papers. We are each prepared to give five guineas, and any assistance will be welcome. Our object is to gather together all the best varieties in the country, so that all may have an opportunity of seeing which are the best worth cultivation.—J. R. PEARSON, *Chilwell*.

I HOPE some one will do as "C. S. B." suggests, and contribute some fuller notes on bedding Geraniums, stating at the same time the soil and treatment under which they succeeded. When Geraniums are not bedded-out, as in many parts of the London parks, till the third week in June, they are not likely to make any growth so as to come into bloom till nearly the end of August. This I can testify, that by the 14th of June many beds of Geraniums, especially in the Green Park, were not planted; and even at the Crystal Palace, when I was at the Rose Show on the 20th of June, there were plenty of empty beds to be found. What chance had Geraniums, especially newer sorts propagated in spring, to succeed when a dry cold June was followed by a hot dry July? Young plants never got any hold of the ground in many cases till rain fell after the 27th of July, and plants must grow before they can flower. I am glad "C. S. B." speaks out about Vesuvius. I grew it one season longer than I otherwise should because it was so much cracked-up, but nothing would induce me to make another bed of it. Though Pink Queen is a shy bloomer till the plants get established, yet it is in very fine bloom

here. Several kinds besides Vesuvius are apt to shed their petals with hot dry sun or wind, notably Darius and Jean Sisley.

I fear none of the true Gold and Bronze section of Geraniums will be as strong as Beauty of Calderdale, Her Majesty, Kentish Hero. The very absence of chlorophyll (the green colouring matter of the leaves) will prevent this. Still Impératrice Eugénie, Crown Prince, Reine Victoria, Earl Rosslyn, and my namesake, Rev. C. P. Peach (which last seems the strongest-growing of all the true Gold and Bronze section), will always repay extra trouble. Mrs. Lowe, Amaranth, Violet Hill, Charley Casben are both growing and blooming well here, but then they were planted out before the end of May, and were good plants when put out.

I despair of getting either a good white of the Madame Vancher type, or a good one of the François Desbois style. Gloire de Corbenay was the best I ever had.

Many Geraniums, as well as double Marie Lemoine, would be better planted out as old plants, for other plants besides doubles do but little good till July is nearly over. Of strong growers, Col. Holden and Dr. Tait would suit many. Chief Justice was far too strong here, and had to be discarded. I hope others may record their opinions.—C. P. PEACH.

LITTLE HEATH MELON.

I CAN bear testimony to the great merit of Monroe's Little Heath Melon. In four lights of an ordinary brick pit I had fourteen good fruit, the largest weighing 5 lbs. They had no bottom or top heat other than sun heat, as the pit was filled with leaves only early in January for Potatoes, the Melons being planted after the Potatoes were taken up. The flavour, however, is not first-rate, although better than that of many varieties I have grown.

I may add that Gilbert's Victory of Bath has proved very good with me this year. It is very early and of good flavour, also an excellent bearer; I cut fifteen of fair size—from 2 to 3 lbs. each—out of two lights.—T. PROSSER, *Gardener, Bridge Hill House, Canterbury*.

UNDOUBTEDLY the Little Heath Melon is the best for amateurs to grow, and for flavour it ranks with first-class Melons. It requires no heat, so that the trouble of a hotbed as for less hardy sorts is dispensed with. All that is required is to raise plants, say two in a 60-pot, and when a cold frame is at liberty throw in a mixture of rather strong turfy soil three parts, and one part thoroughly rotted manure, to the depth of a foot. Level it, but leave a small hill in the centre of each light, in which plant. If the lights are large put two plants in a hill: if small, one. When the plant is in free growth give air on every favourable occasion, so as to secure short-jointed wood, and keep the atmosphere rather dry while the fruit is setting. By no means allow more than five fruit on one plant, for this number is all the plant can well carry. Trim and train the shoots regularly, keeping the main shoots thin, so as to allow space for the laterals on which the fruit will be produced. The soil should be made rather firm, which will tend to prevent over-luxuriant growth, and water should not be given too freely. Great care must be exercised to maintain a sweet healthy atmosphere and to guard against red spider. Dryness at the root and also in the atmosphere when the fruit is ripening will tend to improve the flavour. If "G. C." (see page 161), adopt this plan he will meet with the same success at much less expense and trouble, for this Melon does not require heat.—J. H., *Bickley, Kent*.

STAG'S-HEAD FERN.

IN reply to "F. P.," No. 699, page 165, I beg to enclose you three specimens of fronds taken from three plants in my possession. One is plain, the other two forked. In this part of the country they are commonly called Stag's-head or Stag's-horn Ferns. Botanically this is a misnomer, as the fronds bear no resemblance to the proper stag-horn (a specimen of a plant of mine I also enclose). The botanical name of the Ferns to which I referred in my first communication is *Scelopendrium*, Hart's-tongue. The two forked specimens enclosed may be classed as *crispum* (curl-leaved), or *multifidum* (many-cleft), and the plain-fronded one as *Scelopendrium vulgare*. Some seven years ago I gathered the roots from off a moor near Ulverston, called Birkkrigg. When I first had the forked kind, one frond only was forked, and that with a single fork.

Since then I have had it in a rockery in the open air for two years, and finding that it yearly continued to improve (it has never had a straight frond since the first year), I took it into the house and potted it. The improvement has been annually manifest, and at the present time a single piece of gold coin would not purchase it. On the moor above referred to, the limestone formation crops out to the surface in large boulders of quaint shape, the smaller ones of which are used in rockeries or as a top-dressing for garden walls. In the clefts of these rocks the *Scelopendrium* is found in large numbers, and also in the neighbouring hedges. Of course, the surrounding inhabitants are not insensible to their merits, and the forked ones are sought for, yet there are many still to be found. I have no hesitation in saying that in a day a man would be able to collect an ordinary cartload all in growing condition. Of these twenty per cent. would probably be forked. Some two or three years ago a friend of mine, now resident in Manchester, but a native of this district, wrote to ask me if a specimen of the many-cleft species could be found in its wild state here, and was not a little astonished when I sent him a similar frond to those I enclose to you. I also send you a specimen of the Maidenhair Fern, which grows here in great profusion.

—BETA.

PEACHES.

In conformity with Mr. Luckhurst's request, page 165, I write a line, premising that my experience is from orchard-house culture only. I strongly recommend Early Alfred as one of the best sorts—that is to say, at present, and I put in this proviso because I have found sorts which were excellent for a few years sink below old and tried varieties. This was the case with Dr. Hogg. After it had lost its first excellence I kept it on for two or three years, hoping that it would recover, but with me it never did. Early Rivers and Walburton Admirable I have discarded. As a late Peach take Rivers's Princess of Wales, a noble fruit, and for very late purposes his seedling No. 10, though far inferior to mid-season sorts. A most desirable variety is Pymond, an Exeter seedling, sold by Veitch.

—G. S.

A NEW PRINCIPLE OF GARDEN ARRANGEMENT.

THIS is the title of a little pamphlet by Mr. H. W. Cooper, in which what is termed the "natural style" of gardening is set forth as being altogether superior to "the present artificial style," and an attempt is made to show how improvements are to be effected.

It has so long been customary for many worthy horticulturists to indulge in sweeping invectives against the so-called artificial style, that some inquiry as to what this style really is may perhaps serve to enlighten even those who so stoutly rail against it. To quote Mr. Cooper's words, this is what it is: "For five months we may see our grounds brilliant, indeed resplendent, with Geraniums and a host of other bedding-out plants; but what becomes of those beds for the other seven months in the year? Have we not mostly seen dull gloomy-looking shapes of earth cut out of the grass or gravel, and prized in winter only for their quaint or elegant designs, or in remembrance of their past summer glories?" Thus it is resolved into five months' splendour and seven months' dullness in regular alternations. Spring gardening is indeed mentioned, but it is not advocated, being merely passed over as being "not very generally practised," and the spring-flowering plants are claimed as permanent fixtures under the "natural style."

Now, I have seen many of our finest gardens, and have during the last four years been closely engaged in working out the details of a new place, and do not hesitate to say that our present style of gardening is an excellent combination of nature and art; faulty it certainly may be, and susceptible of improvement in some of its details, but not to the extent or in the manner which theorists assert. Take, for example, a terrace garden replete with such architectural embellishments as noble flights of steps, balustrades, statuary, vases, and fountains attached to a pile of buildings of lofty proportions and stately aspect: is it not an art work of the highest order? and would not any attempt to copy or imitate Nature's wild grace in the planting prove altogether incongruous and out of character? The flower garden is undoubtedly a work of art, and a glorious one it is too; only let the design be pure, well adapted to its position, and the beds well filled—not with gaudy, glaring, overpowering masses of primary colours, but

with some full rich tones skilfully interwoven with various quiet tints and shades, rendering the beds objects full of beauty and unceasing interest, and we have a picture so expressive of poetry, and graceful yet dignified refinement, that we may, and do, claim by it to exemplify not "a flash of colour," but "the real and deeper mode of Nature herself."

Nor do we by any means confine our efforts to the production of a mere summer display, but, as has lately been shown in the papers on spring and winter gardening, the preparation of successive relays of plants for winter and spring immediately follows the summer planting; so that the beds never remain bare, the exhausted plants of each season being removed to give place to those which are adapted to the next. Thus we have for winter Holly, green and variegated, and numerous other very ornamental plants which have frequently been enumerated, such as *Pernettya*, *Cotoneaster*, *Gaultheria*, *Mahonia*, *Berberis*, *Pyracantha*, *Symphoricarpos*, *Skimmia*, *Ruscus*, and *Hedera*; with such dwarf Conifers as the violet red *Retinospora cricoides*, the compact and symmetrical *Retinospora leptoclados*, *R. obtusa nana*, and the golden form *R. obtusa aurea*, *Thuja aurea*, and *T. elegantissima*, the very symmetrical *Arthrotaxus selaginoides*, and the Chilean Yew, *Podocarpus andina*, with a perfect host of other shrubs, for the list affords ample materials wherewith an effect full of richness and warmth may be wrought out.

But it is in spring that the garden appears in fullest beauty; then the deep blue *Scilla*, the lovely *Myosotis*, with *Saponaria*, *Viola*, and all the wealth of vernal beauty which we now possess, burst upon us in such loveliness, that it is no uncommon thing to hear exclamations of genuine admiration from those who at other seasons hardly seem to notice or care for flowers at all. Thus we delight to keep the flower garden always bright, always attractive, with our best treasures. May we not call them "art treasures?" for are not most of them varieties and seedlings resulting from skilful and patient hybridising by masters of that art.

Now, what does Mr. Cooper offer us as a substitute for all this? Insisting upon the use principally of hardy plants, he enumerates *Yucca*, *Tritoma*, *Acanthus*, *Rhubarb*, *Dielytra*, *Asparagus*, *Thrift*, *Daisies*, &c., as worthy to form a "permanent foundation for the ornamentation of our grounds." It is true he is willing to admit a few of our usual summer flowers, but he confidently asserts that "the ribbon beds, and all similar preiseness of colour will soon be reckoned with the past." It is a remarkable fact that most of the really valuable hardy flowers do find a place in very many gardens, but then good taste leads us to form them into bold groups mingled with shrubs; they also most effectively fill many a niche in the rockery, or render mixed borders perennial with their almost continuous succession of bloom. But ornamental as they undoubtedly are, we never should dream of yielding many of them a place in the flower garden. That very much more can and should be done with hardy plants is undoubtedly correct enough, more especially in the formation of striking shrubby groups and beds. Take for example the *Yucca* for a bold effect upon a steep bank or abrupt declivity; the Heath tribe for gentle slopes; the Pampas Grass (*Arundo*), and *Gunnera* for rocky dells or the margin of ornamental waters; and so far as Mr. Cooper's advocacy of this goes, it is useful and praiseworthy. Unfortunately, however, he is so ardent a reformer, and his ideas wander so far out of the beaten track, that his last two or three pages are devoted to showing how, in his opinion, beauty and utility may be combined by associating the Raspberry, Currant, and Gooseberry with Hollies, Box, Yews, &c., and by mixing *Gladioli* and herbs, garnishing beds of flowers with Parsley! and so forth. The absurdity of such teaching must be so evident to all that any refutation is unnecessary.

It is altogether in vain for the advocates of hardy flowers to suppose that they will ever succeed in ousting the bedding system from our gardens. Depend upon it the education of gardeners is progressive, and instead of the adoption of any plan that is so retrogressive in its character, we shall strive rather to perfect and extend the system of which the foundation was so firmly laid by that master of the art, Donald Beaton. Let not anyone suppose that real lovers of gardening are content to remain passive in the matter. The very numerous inquiries that are constantly made, and the tasteful colour-arrangements sent for criticism, would alone afford conclusive evidence of the general prevalence of a lively and growing interest; and as time rolls on, instead of clashing with Nature, we shall, I doubt not, strive with increasing

earnestness and success to copy the lessons which she teaches—not so much when she presents herself in wild and rugged beauty, as in the softer and more pleasing aspect of flowing lines and harmonious tints. The work is a healthy and elevating one, and is far more generally appreciated than many persons appear to be aware of. It never palls upon the mind or grows tame; it appeals to our common nature so forcibly that whenever I see a well-kept and highly-finished flower garden, with the rich yet soft harmonious blending of its colours, the exquisite neatness of its keeping, the pleasing relief which the skilful intermixture of plants of stately or graceful aspect imparts, I invariably recall the exclamation which a bluff old nurseryman made years ago when speaking of such a scene, "Paradise, sir, paradise!"—EDWARD LUCKHURST.

CONSTRUCTING GREENHOUSES.—No. 1.

THIS is the usual season for erecting these structures, and many of our readers are now asking us for suggestions and directions. The late Donald Beaton wrote to us so fully on the subject that we republish his notes, and add some plans that our readers may select one that best suits their places and purposes:—

The best aspect for either a greenhouse or pit is south, but east or west aspects will answer. The angle of the roof is best when low, say about 30°; the width inside from 12 to 14 feet. Greenhouse plants always do best when the roof is pitched low. The usual objection to low roofs is, that the wind will drive in the rain between the glass, but that is easily got over by having the laps of the panes puttied. A higher angle for the roof than 30° is apt to draw the plants too much to one side. You always see nurserymen, who are good judges of what is best for their plants, use flat roofs to their greenhouses. The roof-sashes should be in two lengths, and the top ones one-third shorter than the bottom ones; they will thus be lighter for sliding up and down in giving air to the house. A better plan, however, would be to have all the roof lights or sashes fixed, and in that case they would be better in one length; but that could only be done well when a good dry shed is placed against the wall behind the greenhouse; into this shed large openings might be made at the top of the back wall for giving air. One of the greenhouses at Shrubland Park is thus constructed, and answers very well. This very house and shed may be described as an example of one very economical and useful for an amateur. This house is 12 feet wide inside, the back of it 13 feet high, and the front 6 feet, consisting of 2½ feet of brickwork, and the rest of glass. The front sashes move on hinges, by which they are fastened to the top plate, and when opened for giving air are retained in their position by a thin piece of flat iron 15 inches long fastened to the bottom frame of each sash. This flat handle, as I may call it, is pierced with ten holes along the centre, about an inch apart, and there is an iron pin 1½ inch long fixed in the lower wall-plate, which fits these holes. Now, when you want to give air you take hold of this handle, lift it from the pin, and push out the sash with it, say to the length of six holes; drop down the handle then over the iron pin, and your light stands open 6 or 8 inches wide. No wind or accident can alter it backwards or forwards till the handle is let go off the pin. There is nothing in this contrivance to get out of order, and it is the simplest thing possible. All the front sashes may be opened to 14 inches wide, and, with the door open, the plants are nearly as free as if they were in the open air. The roof sashes are all fixed, and just under the top angle there is an opening into the back shed under each light. These openings are 3 feet long and a foot wide, without any shutters to them; there they are wide open day and night, winter and summer. The shed behind is always dry, being used to hold large Myrtles, Fuchsias, &c., during the winter, and as a painter's shop and lumber-room in summer, so that a current of dry air plays over the plants all the year round. When the shed and greenhouse are closely shut up in frosty weather the current of air goes on nearly as strong as when all is open, by a very simple contrivance. The floor of the shed is 6 inches lower at one end, and here a hole is made through into the greenhouse; this hole is directly over the furnace which heats the greenhouse flue. As the air cools in the shed it rolls down to this opening, and is sucked into the greenhouse by the heat of the furnace; it then ascends over the plants till it escapes into the shed again by the top openings. For the economy of the thing the back wall is only made up of posts and strong boards,

plastered over on the greenhouse side, and whitewashed with lime on the shed side, and being always kept dry, will last a lifetime.

A shelf 30 inches wide runs along the front and one end of this greenhouse, and under this shelf the flue passes all the way. The shelf is 2 feet 3 inches high from the level of the path, the bearers which support it being cross-pieces let into the second course of brickwork next the top; the shelf thus standing one brick lower than the front glass. The path ought to be 2 feet 10 inches wide, or if you give it a yard it will be all the better. Recollect there will be a shelf on each side of it, and when your friends come to see your success in growing plants they have to walk, stand, or turn round in the path; and if there are ladies in the party their dresses are sure to be made so full that a narrow path will not allow them to pass without pulling down your pots and plants on either side of the way, and instead of getting any praise for your plants and for the laying-out of your new greenhouse, you will be told, and very properly too, that "you have made a poking place of it after all." Let us therefore have a wide comfortable path at any rate, though by doing so we encroach a little on the shelves. The front shelf need not be wider than 18 inches, just to cover over the flue, if you are tied for room, as no tall plants could occupy that part for fear of intercepting the light from the rest of the plants. The roof sashes are best made 4 feet wide, or as near to that as the size of the glass will allow; let them be made of the best red deal, primed, and once painted before the glazing is done. The reason for giving

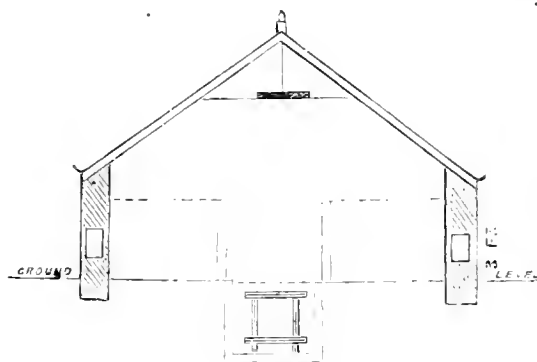


Fig. 53.

two coats of paint is, that after the glass is in there must be no more painting allowed for full three months. Now, if you contract with a builder to erect the house, recollect to enter this clause about the painting in the specification, as he will be sure to urge you to finish it off at once. The reason for the three-months delay is that the putty may get dry throughout before it is fit to be painted. Of course you will be told this is all fancy, and that ninety-nine persons out of a hundred never think of such a thing, and that a little white lead mixed with the putty will make it set hard in a few days; and so it would, but have nothing to do with that sort of putty. Gardeners never allow the use of that old kind of putty in these days, because once it gets dry they can hardly cut it when repairs or alterations are to be made afterwards. We have seen a good glazier break four squares of glass trying to mend one broken one, besides spending an hour and a half at the job, which a mere lad could do in five minutes, and without any breakage, if proper putty had been used in the first instance.

Hothouse putty is made with whiting pounded down and sifted very fine, and boiled linseed oil, making it into dough as the bakers do their bread; the more the dough of putty is worked the better it will be, and it should be at least ten days old before it is used; in that time a large lump of it will "sweat"—that is, slightly ferment, which is necessary to give it the proper adhesive power. When this soft putty, as it is called, is allowed to dry thoroughly before it is painted over, it will last as long as the hardest white-lead putty, and at the end of twenty years be soft enough to be cut away with your knife. If, therefore, you wished to remove your greenhouse at any future time, you could easily take out the glass, pack it in boxes, and the timber-work could then be handled and packed without the risk or annoyance of breaking the glass. We often see very neat well-built greenhouses in all respects, except that

the putty, having been painted over as soon as the lights were glazed, gives way the second season, the paint having blistered, not being able to fix or unite with the putty in a green or damp state. Then the rains drip in between the putty and the glass in all directions. Now, to guard against this everyday occurrence is the reason for my dwelling so long on such minute details. To say that this, that, or the other, should or should not be done, without assigning reasons for what you say, is no proof that the party giving such directions is any judge of what he recommends or condemns.

In making the shelves for the body of the house, the lowest shelf ought to be on a level with the front one, and the others carried up in regular gradations, according to the slope of the roof. If the house is detached from other buildings, both ends should be glazed above the level of the shelves. The door is to be at one end, and the fireplace behind the door, the flue passing under the path within the doorway, and on reaching the front wall, to rise with a gentle slope, and to be carried nearly on a level along the front wall, and within 2 inches of it, and to pass along to the farther end of the house into a chimney in the corner. The size of the flue to be 9 inches wide and 11 inches deep, made with bricks set on edge, and on no account to be plastered inside or out. The top and bottom of the flue to be made with thick tiles, called "foot-pamment," the bottom ones resting on flat bricks to clear them from the ground; the fireplace should be 18 inches long by 14 inches wide, and 14 inches high, with iron bars for a hearth. The door to be a foot square, and the asphalt 9 inches deep, and the same length and width as the fireplace above it. The door of the fireplace would be more effective, and less liable to warp with the heat, if it is made a "double" door—that is, by having a plain square piece of half-inch-thick iron riveted to the inside of it, and 2 inches apart from the inside of the door; this is a simple and very useful contrivance, but often neglected. British sheet glass, 16 ozs. to the foot, is the best kind to use; the width of the panes for the roof sashes should be about 8 or 10 inches, and they should be from 1 to 1½ foot long. For the front sashes the glass may be much larger every way. This kind of glass is sold in boxes, containing 100 feet of glass each, and sold from 2½d. to 3d. per foot. Sashes of the best red deal are generally made by contract at about 6d. per square foot; but the price, no doubt, varies in different parts of the country, but this will be sufficient to form a guess at what the sashes and glass will cost; for nothing of this kind ought to be attempted before every item of the expense is first ascertained. If the house is made by contract, let the contractor be responsible for the efficiency of the whole for the first twelve months.

on the same principle is shown in *fig. 51*; but to save expense the bottom is placed on the ground, and slates or tiles placed diagonally at the sides to prevent the soil coming against it, and thus let the heat ascend from the sides as well as top. This flue may receive a wide-enough cover to form the walk, or may be covered over like the rest of the floor, if tiled.

Supposing the doorway was at one end, or you had a doorway at each end, so that you could go right through the house, then the stovehole should be sunk a little at the side of the doorway, the flue turned a little until it got to the centre beneath the pathway, and then turn a little at the other end so as to avoid the doorway, if there is one, and go into a small chimney there. Such a flue in a length of 30 feet might rise from end to end some 2 or 3 inches, and to draw well the bottom of the flue ought to be from 15 to 18 inches above the firebars, so that for such a small fireplace as would suit this flue, you would have to sink a stovehole from 3 feet to 3 feet 6 inches below the ground level, and the small hole could be covered with a neat wooden flap.

But, now, supposing that your soil is so bothered with springs and swamps that you could not expect such a hole to be made without retaining in winter 6 or 12 inches of water, then all you have to do is to sink all that less, and take your flue along above the ground level, beneath the flower platform, instead of in the middle of the house. This house we would advise for a warm sheltered spot, and we think that in a short time it will prove cheaper than a pit, as though much more glass will be wanted, the fixed roof will otherwise cost much less than the sliding sashes.

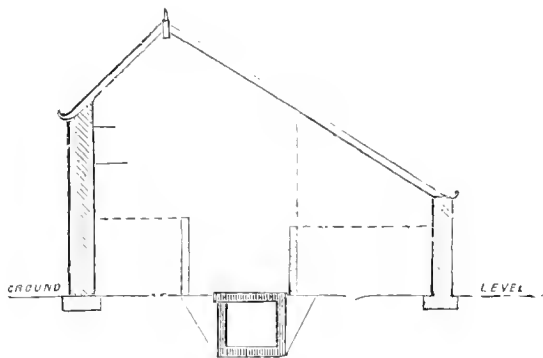


Fig. 51.

Fig. 51 is a form of house that we would recommend for an exposed place, and where even a little fuel would be a consideration; width the same, back wall 5½ feet, front wall 2½ to 3 feet, sashbars the same; but if the house were 30 feet long we would have two slight pillars in the middle, 10 feet apart, and an iron bar along the roof. The short-hipped roof at back might be glass, one-third of it moveable; or, if warmth were a great object, it could be wood, and be painted a light colour inside, and a ventilator placed in it all the length. The front ventilator we would secure by openings in the front wall and slides. If the house were to be filled with small plants brackets for shelves could be left in the back walls. The same principle would apply to the flues; and if a little more expense were no object, hot water might be substituted. Such a house with a fixed roof would cost little more than a pit with moveable sashes, and there could be no comparison of the pleasure it would afford, and that, too, ultimately in the most economical manner.

Now for the management of such a house. In summer, unless in boisterous weather, all the ventilators and doors may remain open for months; in winter the tenderest plants could be placed nearest the furnace. If the house were from 30 to 40 feet long it would be better to make two divisions, and place *Calceolarias* at the farther end, then *Petunias*, then *Verbenas*, and so on, keeping fine *Pelargoniums*, &c., at the warmer end. The admission of air will always regulate the temperature. Firing should not be given in frost to raise the temperature more than to 38° to 45°; never above the latter. We have made no allowance for moist heat, because from the soil in the pots, and from the floor, sufficient moisture will, in general, be obtained; but if in continued frosty weather the air should become too dry, that is easily remedied by syringing the plat-

The cheapest of all modes of heating a small house—say 9 feet by 20 feet or 30 feet, remarks the late Mr. Robert Fish, would be an Arnott's brick stove inside the house, or a portable iron stove, which, however, we do not like so well, and a small portable boiler might also be used; but in the case of those great numbers who would rather have the fire outside than inside the house, we would recommend such a house as shown in *fig. 53*.

Width 9 feet, height to apex 7 feet, height of side walls 3 feet, openings in these side walls for air 1 foot by 18 inches every 4 feet, ledge left out in side walls to receive the ends of flooring for pots, the other side being supported by posts at the pathway, and a plank some 4 inches square with a notch in it to receive the other ends of the boards or spars for pit platform. Underneath this platform there will be room for stowing *Dahlias*, *Salvias*, *Fuchsias*, old roots of scarlet *Geraniums*, &c. Roof all fixed, rafter sashbar 3 inches by 1½ inch, placed so as to receive squares 18 inches wide by 12 inches deep, and two squares at top every third row made in a frame, and made to slide or open on pivots. A crossbar every 6 feet across from rafter to rafter, and a shelf in the middle over the pathway if deemed advisable for small plants. The space beneath the platform, and also the sides of the pathway, would hold many things when first potted, before they began to grow, and were thus able to stand the sun on the platform without any shading.

We have represented this house as being heated by a flue sunk in the middle of the house, but free of the earth all round. If the floor were tiled the same tiles could go over the top of the flue, leaving the open spaces at the sides so as to secure more heat; or if the floor were earth or gravel, the top of the flue could form the path, or a sparred gangway could go over it. Either of the first two would be the cheapest. A flue

form, or damping the floor and walls. The same care must be attended to in giving air as in a pit; but here comes the advantage of a place to which heat can be applied: you can give just a little air at the top every day, so as to sweeten the air in the house; and in cold muggy weather you can put on a little fire, which will enable you to give such an amount of air as will make a little breeze in the house, and even cause the cold fogs to disperse, by changing visible clouds into invisible vapour.

CANKER IN TREES.

THERE is as much difference of opinion on this subject as on the Potato disease. It is variously ascribed to bad or wet soil and subsoil; exposure to cold bleak winds, in high situations particularly; black frost in spring checking the circulation of the sap, external injuries of different kinds; insects lodging in the cracks and under the old bark; the infirmities of old age in those varieties long cultivated in England; improper stocks or improper grafting. Though others seem to be of a different opinion, yet I think that no topical application will do any good, and that the disease is not of the bark, but of the wood; and I am inclined to believe that this may frequently be the case, for on removing cankered branches I have often remarked that the very heart was infected and discoloured, and the wood under all the three different barks rotten or diseased. That canker often proceeds from the old age of those varieties long cultivated in England I am also convinced, from its being so very destructive to young trees in new gardens, in many of which it is very prevalent where these old kinds are found.—J. H., *Bickley, Kent*.

TAUNTON DEANE HORTICULTURAL SHOW.

It is not recorded of the illustrious Mr. Mark Tapley that he was ever the secretary, or even the member of a committee, of a horticultural society, and I think it was an oversight of the author not to have put him into that position; for, as in that experience the morning of the exhibition day opening under a gale of wind with heavy rain and a tent blown to tatters is not an unusual thing, to have been jolly under such circumstances would have been more creditable than in any of the positions in which he has been placed. Such was the case at Taunton on the 13th, and things looked gloomy indeed. But yet there was no sign of despair. Hope was the order of the day; and the Secretary and Committee alike seemed to have heard the word of

"Hope is a lover's staff: walk home with that,
And manage it against despairing thoughts."

And their hopefulness was rewarded. The sun broke through; soon the crowds from the neighbouring places thronged in, and the clean comely town were quite a holiday aspect, for the flower-show day is the day of the year. The streets were one huge fair; and as one surveyed the delicacies offered to the strangers, the thought crossed me, Have these people such a thing as digestion? The grounds were soon filled with the *élite* of the neighbourhood, and as I left the multitude was pouring in; and although the attendance could not have equalled that of former years, still it must have been large.

I do not think that it is very interesting to enter into the details of the various exhibits at these provincial exhibitions, but to notice those things which are well done, and from which those who are in the habit of visiting our metropolitan shows might gain a lesson; and some such were to be here. Zonal Pelargoniums are among the plants one very seldom sees "done well" in or about London. The plants are either overgrown, and then they are leggy and sticky, or else they are miserably small. But those exhibited by Mr. Hoskin and Mr. Woodhouse were models of plants—plants of medium size, with about two dozen trusses of bloom standing up well above the foliage, good in quality and sturdy in growth. Then never did I see such Balsams as those exhibited by Mr. Woodhouse. There was one especially, a lilac one, which was more like an enormous Brompton Stock than anything else. I was not singular in my opinion, for Mr. Turner, who was with me, expressed the same opinion. Gladioli were exhibited by Mr. Kelway, and as they were close at home it may well be imagined of what character they were. A more beautiful stand it was impossible to imagine than his twenty-four, and, as usual, nearly all his own seedlings. Two new ones were marked for first-class certificates—Kriemhilda and Mrs. Dombrin, the latter a very lovely light flower. A very good stand was exhibited by Mr. Sampson, of Yeovil; most of them being also Mr. Kelway's seedlings. Mr. Dobree exhibited some very good ones including Ondine and De Miral, two of the new French varieties of this season, the latter a very fine flower. Roses and Dahlias were shown by Mr. Keynes, a sufficient guarantee of their excellence. The latter were especially good for the season, and one, Mrs. Harris, received a first-class

certificate. When I say that Mr. Coleman, gardener to Lord Feversham (whose Grapes have attained so great a character), and Mr. Pragnell, gardener to Mr. Digby, of Sherborne Castle, were amongst the exhibitors of fruit and vegetables, it will be seen that fruit was staged worthy of any exhibition, and certainly the Stirling Castle Peaches, the Muscat and Hamburg Grapes, were grand examples of culture.

I last year commented somewhat severely on the table decorations, and am glad to say that this year two very excellent tables were set up. There were faults in each, and I hope if either of the ladies who exhibited them read my notes they will pardon the freedom with which I criticise them. That which obtained the first prize was too crowded. Had those abominations the shallow trays sprawling about the table been removed it would have been a very excellent example. The faults of the second were that the garniture of the table was too scanty, the "converts" consisting only of a knife and fork—no second fork or spoons. This made it look meagre, while the centrepiece was too heavy and obstructing the view. The flowers on this table were very prettily arranged and good, but these faults counterbalanced its excellencies. I cannot say that the combination of specimen glass and napkin-holder on the first-prize table struck me as anything but vulgar.

It remains but for me to add that the same courtesy and consideration I have ever met with from the good folks of Taunton were freely given this year, and that among the red-letter days of 1874 must be marked in my calendar the day of the annual Show of the Taunton Horticultural Society.—D., *Deal*.

EARLY AND LATE STRAWBERRIES.

UNDER this head "D. F. J. K.," page 143 of "our Journal," asks whether there exist any Strawberries to beat Elton and Oscar for lateness, and Black Prince for earliness. The idea strikes me first that "D. F. J. K." does not possess either Oscar or Cockscumb true to name. Oscar is one of the earliest Strawberries we have, ripening frequently its first berries together with Black Prince if planted near each other, whilst Cockscumb is decidedly one of the largest kinds ever sent out; this latter is mostly of irregular and cockscumb shape, whence its name very properly given. It is quite as late as Elton and Eleanor (both sour), to both of which as regards quality it is greatly superior. The sort sent out many years ago by an Exeter firm under the name of Nimrod, proved to be nothing else than Myatt's Eleanor. I had my plants at the time direct from the advertisers through one of the leading London nurserymen, and can, therefore, speak of it with good authority. Frogmore Late Pine, though ripening the first berries at the medium season, continues in bearing quite as long as Elton and Eleanor, not to speak of its superior flavour.

Now as to early Strawberries. It is quite useless now—a days to propagate such kinds as Black Prince when we possess, thanks to Dr. Roden, the beautiful Early Prolific, which if planted side by side with Black Prince is quite as early. Then we are going to have from the same raiser (Dr. Roden) Alpha, which bids fair to be earlier still; in fact as early as we may expect to gather Strawberries in our northern climate. Here the strong April and May frosts destroyed the better part of the bloom; nevertheless I had Early Prolific, Duke of Edinburgh, Vicomtesse Héricart de Thury, Oscar, Marguerite, &c., ripe simultaneously with Black Prince.

Speaking of Strawberries, I cannot help alluding to another small article on the subject, headed "Notes on Strawberries." This note was signed "A. P., Germany," but I think the author, my friend Mr. Edmund Nebelsieck, the able head gardener at Villa Albertina in my neighbourhood, will not feel hurt in his modesty if I divulge his name. He speaks of my new seedling Unser Fritz in very flattering terms, and he is a good judge, growing at his employer's, the Consul Schön, a large number of the best varieties. I hope that—several parties in England having obtained from me plants of Unser Fritz—it will there likewise become a favourite, which it has become with all who possess it in this country. It begins to ripen at the medium season, and bears plentifully until all the known late sorts are over. The day before yesterday (August 14) I still had some very nice berries. As regards the quality, I leave the parties who have Unser Fritz under cultivation to be the judges.

In conclusion, I may add that there is still a very good late Strawberry "D. F. J. K." does not seem to be aware of—I mean Riddleman, raised at Frogmore. This is likewise decidedly a very late kind, and an enormous bearer.—FERDINAND GLOEDE, *Eppendorf, Hamburg*.

In reply to the queries of "D. F. J. K." (page 143), I beg to

say that in my high and exposed situation in the open, and without any protection whatever, we gathered Black Prince on the 8th of June in quantity, but had some odd berries ripe before that time. I have grown many so-called earliest Strawberries, including Knight's Princess Alexandra and Nicholson's May Queen, but for earliness have given all up in favour of Black Prince, and this year they have been better in quantity and quality than usual. Our last Strawberries in quantity were gathered July 27th, although we continued to get a few good fruit up to August 8th; these last were from Cuthill's Prince of Wales, a most excellent sort for general cultivation, being hardy, and a good grower on light as well as strong land, a handsome fruit, also a good cropper.

Brown's Wonder has again been a real wonder for quantity this year, some of the plants having as much as a hundred ripe and ripening fruit on at one time; the fruit has also been better flavoured and better shaped than usual.—H., *Belper*.

NOVELTIES IN THE ROYAL GARDENS, KEW.

Solanum venustum is a beautiful and little-known climber, flowering in the Palm house. The stems are slender, and with the foliage light green. The leaves are pinnately 3-5 foliolate, though the first produced on the young shoots are usually simple. The flowers are light mauve colour, and are borne in large terminal panicles. They much resemble those of *S. jasminoides*, to which it is nearly allied. It is supposed to be a native of Brazil, and so far as known requires a warm greenhouse or stove. Cuttings root easily. Close at hand a fine plant of *Passiflora macrocarpa* has about a dozen huge fruits. In this country the fruit is not so good as that of *P. quadrangularis*, but in South America it is much valued for the table.

The very rare *Rhexia virginica* is in flower at the Rockwork. It is the only hardy member of the order Melastomaceæ in cultivation. The flowers are rosy purple. It has a neat bushy habit, and grows about 1 foot high. It is difficult to cultivate in pots, and should be planted in a deep bed of peat where there is plenty of moisture. But few of the nurseries have a good stock; Messrs. Osborn, of Fulham, have, perhaps, the largest and in the best condition. *Micromeria piperella* has received but little attention. It is an extremely pretty Thyme-like plant, very suitable for rockwork. The stems are wiry, about 6 inches long, and produced in a tuft. At the extremities are borne numerous pinkish flowers. It grows readily from seed, and may also, doubtless, be increased by means of cuttings. A young plant of *Aeonium heterophyllum* has a few flowers. It was figured in the "Botanical Magazine" for April of this year, and though apparently of not much value for the ornamental border, is of importance for economic collections. "Is a very interesting plant, as being, though a member of a most poisonous genus, in extensive use as a tonic medicine throughout North India, under the name of Atees or Atis."—(Dr. Hooker, *Bot. Mag.*) It is a native of the Western Himalaya.

Cienkowskia Kirkii, a new plant introduced by the Royal Gardens, is flowering in the stove. It much resembles a small *Curema*, to which genus it is allied, but the flower instead of the bract is in this case the chief ornament. The flowers are pink and very pretty, though not sufficiently striking, and of too short duration for general cultivation.

Hemantus eoccineus is a great ornament in the Cape house from the brilliant crimson leaves of the involucre. It is an old plant far too rarely grown. There is no difficulty in its cultivation. Like most other Cape Liliaceæ, it does best when the pots are full of roots. The bulbs should be potted with porous loam, in pots or pans that will but little more than contain them. If carefully done they should remain in good condition, and will not require repotting for several years. When at rest they should be kept dry, a very occasional watering in fine weather excepted. After the flowers are over the leaves appear, and from their massive character the plant is still of value for decoration.

Of the species of *Clematis* in the Herbaceous ground, *C. æthusifolia* is one of the most elegant and graceful. The leaves are light green and delicate in appearance; the flowers are freely produced, they are somewhat tubular and yellowish white, not brilliant in colour. *Lavatera unguiculata* is handsome from its numerous rose-coloured flowers. It grows strongly, reaching a height of about 6 feet, and would be excellent for shrubberies and rough corners. *Trachymene (Didiscus) cærulea* and *Emilia sagittata* are worth the attention of those who

care to grow annuals. The former is of some interest as having showy blue flowers, and belonging to the Umbelliferae. It grows about 18 inches high. The stems are erect, and the leaves three-parted, each division again divided; both clothed with soft hairs. There is no disagreeable smell. *Emilia sagittata* is an Indian Composite with orange-scarlet-flowered capitula, much like those of *Kleinia fulgens*. The leaves are light green and rather succulent. It grows from 1½ to 2 feet high.

DESTROYING WASPS.

In my locality these insects have been the great consumers of my fruit this season, but their destruction I have found anything but difficult. Cyanide of potassium is sold by all druggists at moderate cost. I place a piece of this, about the size of a lump of sugar, in a piece of sponge sufficiently large to fill the hole of the wasps' nest, and thus I close the entrance. I leave it for some hours, and every wasp is killed. I then dig out the nest, and destroy the comb, so as to prevent the hatching of the grub. The remedy is easy and infallible, at small cost.—(GARDENER IN THE SOUTH.)

If instead of the squib or other devices which require preparation, about 12 or 18 inches of the ordinary fuse used by miners for blasting rock, &c., and which may be procured at any ironmonger's at a trifling cost, were introduced into the nest, and a light applied to the outside end and immediately covered with a turf, it would be found to be a much more simple and efficacious way of disposing of these pests. The nest must be dug out after allowing a few minutes for the fuse to exhaust itself. As the fuse will burn under water it does not require any air to complete its combustion. The fumes are more deadly than those of ordinary powder. I have never known this plan fail, and its great advantage is its easy mode of application.—ADMSTON.

Your correspondent Mr. J. Robson has mentioned the most convenient way of destroying wasps, but I think that if nitre in a fair proportion is added to the sulphur and gunpowder the strength of the squib is greater. I have used the above often with great success, and a few years ago I remember destroying eleven nests in the sandy turf banks at Formby Hall, near here, on one evening, and I dug every one out next morning at six o'clock without finding a wasp that could fly. The mixture should only have enough powder to make it burn fiercely, and a little pure powder in the top of the squib to start it well; and directly it is well alight insert it into the hole, and tightly press a turf, previously cut, ready over all. There is no fear of the squib going out if properly mixed, to be sure of which take a very small portion of the whole, make it into the shape of a pistil, and apply a match; if it burns fiercely and slowly it is right, and you can fill your eases made as Mr. Robson describes, putting a little dry powder at the mouth as above stated.—J. W.

THE DROUGHT AND ITS LESSONS.

THE very dry and hot weather we have so lately experienced will no doubt induce many owners of gardens to make provision for a better water supply, for I cannot agree with Mr. Taylor in his conclusions about watering, nor care much to see flower-beds covered with chopped straw. In my case, to keep up the supply of vegetables—they are mostly grown in trenches—all hands were kept at the waterpots, sometimes throughout the day. The flower-beds were watered at night, and next morning the soil was stirred with a fork or hoe. Cauliflowers were the only failure I had; all were indifferent after the first lot. As we have had very little rain in the south, and even now the surface is only dampened without watering, my failure in keeping up a supply of vegetables would have been complete. My plan is to give a soaking if possible; if not, to give what I can, and stir the soil afterwards. Even if the soil is not stirred the water will not all pass into the air, some will be taken up by the plants; and I think that this, though perhaps not sufficient for a healthy growth, is better than none. There is much advantage in growing vegetables in trenches as for Celery, and less water is required.—W. S.

MERCURY.—We are informed, but cannot believe the information, that some of our readers have thought we ignorantly recommended the common Dog Mercury (*Mercurialis*

perennis) as good for cooking as Spinach. If our notes on pages 258 and 441 of our last volume are referred to it will be seen that we especially pointed out that the plant is Good-King-Henry (*Chenopodium Bonus-Henricus*), and that the name of "Mercury" is the common name applied to this in Lincolnshire.

BELFAST INTERNATIONAL FRUIT AND FLOWER SHOW.

THIS was held on the 20th and 21st inst. in the Gardens of the Royal Botanic Society at Belfast, and under the management of the Ulster Horticultural Society. It was entirely successful, and we refrain from minute details, because we cannot afford space for the claims upon our columns made by many other exhibitions in England, Scotland, and Wales. Messrs. Veitch and Mr. B. S. Williams were to the fore among the English exhibitors, but we shall enumerate chiefly the Irish exhibitors. Messrs. Rodger, McClelland, & Co., Newry, exhibited more than a hundred specimen plants, and obtained three first prizes. Mr. R. B. Matthews, Belfast, had a large and meritorious collection. The Roses from the nurseries of Mr. Hugh Dickson, Belmont, and Messrs. Alexander Dickson and Sons, Newtownards, were, as might have been foretold, most successful. Among the fruit we will notice the monster bunches of Black Hamburgh and Calabrian Grapes from Lambton Castle. The Hamburgh bunch weighed 21½ lbs., and the Calabrian 15 lbs. The Queen's gardener at Frogmore, Mr. Jones, was the chief prizewinner for Pine Apples. The prizes offered by Mr. W. Bull, King's Road, Chelsea, went chiefly to Irish amateurs.

THE LADY APPLE.

It has been asserted that this Apple was brought from Peloponessus to Rome by Appian Claudius. Whether this be true or not, there can be no doubt it is of great antiquity, as all the oldest authors regard it as the production of an age prior to their own. Dalechamp and Harduin are of opinion that it is the *Petisia* of Pliny; but J. Baptista Porta considers it to be the *Appiana* of that author, who thus describes it, "*Odor est his cotoneorum magnitudo que Claudianis, color rubens.*" From this description it is evident that two varieties are referred to, the *Appiana* and *Clandiana*. Such being the case, J. Baptista Porta says, "*Quo sunt apud nos Mala, magnitudine et colore paria, et preciosa, quorum unum odorem servat cotoneorum, alterum minimè. Quod odore caret, vulgo dictum Melo rosa. Id roseo colore perfusum est, mira ténertudine et sapore, minimè fugax, pomum magnitudine media, ut facile cum ceteris de principatu certet, nec indignum Clandii nomine. Hoc Claudianum dicerem.*" This *Melo Rosa* may possibly be the *Pomme Rose* or *Gros Api*, and if so, we may infer that the *Api* is the *Appiana*, and the *Gros Api* the *Clandiana* of Pliny. This, however, may be mere conjecture; but as the authority referred to was a native of Naples, and may be supposed to know something of the traditional associations of the Roman fruits, I have deemed it advisable to record his opinion on the subject. According to Merlet the *Api* was first discovered as a wilding in the forest of *Api* in Brittany.

Although mentioned by most of the early continental writers, the *Api* does not appear to have been known in this country till towards the end of the seventeenth century. It is first mentioned by Worlidge, who calls it "*Pomme Appaise*, a curious Apple, lately propagated; the fruit is small and pleasant, which the madames of France carry in their pockets by reason they yield no unpleasant scent." Lister, in his "*Journey to Paris, 1698*," speaking of this as being one of the Apples served up in the dessert, says, "Also the *Pomme d'Apis*, which is served here more for show than for use, being a small flat Apple, very beautiful, and very red on one side, and pale or white on the other, and may serve the ladies at their toilets as a pattern to paint by." De Quintinye calls it "*Une Pomme des Damoiselles et de bonne compagnie.*"

Under the name of *Lady Apple* large quantities of the *Api* are annually imported to this country from the United States, where it is grown to a great extent, and produces a considerable return to the growers, as it always commands the highest price of any other fancy Apple in the market. In the winter months they may be seen encircled with various coloured tinsse papers adorning the windows of the fruiterers in Covent Garden market.

There are other varieties mentioned by J. B. Porta as belong-

ing to the *Api* family: one which ripened in August, in size like the *Clandiana* already mentioned, and commonly called *Melo Appio Rosso* because it retained the scent of the *Api*; this is probably the *Rother Sommer-api* of Diel. There is another, of which he says, "*Assererem tunc esse Melapinum Plinii*," and which was held in such estimation as to give rise to the proverb—

"*Omnem Malum malum præter appium Malum.*"

Fruit small, oblate. Skin thick, smooth, and shining, yellowish green in the shade, changing to pale yellow as it attains maturity, and deep glossy red, approaching to crimson, on the side next the sun. Eye small, set in a rather deep and plaited basin. Stalk short and deeply inserted. Flesh white, crisp, tender, sweet, very juicy, and slightly perfumed.

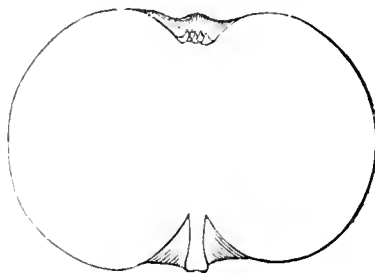


Fig. 55.—The Lady Apple.

A beautiful little dessert Apple, in use from October to April. It should be eaten with the skin on, as it is there that the perfume is contained. The skin is very sensitive of shade, and any device may be formed upon it by causing pieces of paper, in the form of the design required, to adhere on the side exposed to the sun before it has attained its deep red colour.

The tree is of a pyramidal habit of growth, healthy, and an abundant bearer. It succeeds well in almost any situation provided the soil is rich, loamy, and not too light or dry, and may be grown with equal success either on the *Doucin* or *Crab* stock. When worked on the French *Paradise* it is well adapted for pot culture. The fruit is firmly attached to the spurs, and forcibly resists the effects of high winds.—H.

PEACHES—STRAWBERRIES.

As Mr. Camm asks advice in respect to Peaches, and I suppose Nectarines, I am pleased to give it. He must use Parham's glass copings, which are successful, and which I have seen at Mr. Connop's at Fifehead Neville near here. He must buy Mr. Bréchant's admirable treatise called the "*Modern Peach-Pruner*," which can be had at the office of THE JOURNAL OF HORTICULTURE. He must read and copy, as near as he can, page 89, "*the theory of close pruning*," especially Mr. Knight's advice, beginning with the words "*Instead of taking*," to the words "*Cold and late ones.*" I use sheet copings, and have, on all walls in a most trying situation, a capital crop of Peaches and Nectarines. I practised Mr. Knight's plan long before I saw it brought forward. Mr. Sturt's under gardener has been here from Critchel. He was astonished at the fruit and health of the trees. The trees out of doors of the above fruits, he says, have been much blighted at Critchel. The fruits here have been slow in swelling, but the *Grosse Mignonne* Peaches are splendid, from 8 to 9 inches in circumference. That will be a large size for this year. They are splendid in form. *Noblesse* and *Grosse Mignonne* are, in my judgment, the best two Peaches. I cannot recommend too highly *Early Louise* Peach, ripe here on a severe east wall July 19th.

As regards Strawberries, I recommend "*A. P., Germany*," to have Wonderful. It beat all here this year, and is a capital culinary Strawberry, as it retains its firmness. I recommend "*D. F. J. K.*" to have *Frogmore Late Pine*. He is right in saying that the *Black Prince* is the best early out-of-doors Strawberry. There is one much earlier—*Nicholson's May Queen*, but it requires glass to ripen it, as it flowers in February. Baron Hambro's late gardener at Milton Abbey told me some years ago they forced a great quantity and found it very useful. It has been a bad season here, owing to the drought, scarcity of water, and fierce heat. Wonderful was finely cropped. Its chief fault is that it does not colour well to its

points. It is of fine pine flavour.—W. F. RADCLYFFE, *Okeford Fitzpaine, Dorset.*

THOMAS TUSSER.—No. 5.

THOMAS Tusser did not long continue servitor at Trinity College, or the service was compatible with his residing at Chesterton, about two miles distant from the college. He possessed lands in that parish, though of small extent, for in his will he devised to his wife and to his son Thomas, "those seven acres and a roode of copyholde which I now have, lying in the parish or fields at Chesterton. Also all suche estate and terme of yeares as I have yet to come in a certain close called Lawyer's Close, lyinge and beinge in the parish of Chesterton, which said close I have demised unto one William Mosse, for the terme of one whole yeare, beginninge at the Feast of St. Gregorie last past, yeldinge and payinge for the same xxxvs. rente. Also the residue of all my bonds, goods, and chattells, moveable and immoveable, in Chesterton aforesaid or ells where."

That it was his residence seems clear from the first clause of his will, in which he describes himself, "Thomas Tusser, of Chesterton, in the countye of Cambridge, gent." When or how he became the possessor of the Chesterton property we do not know; and though he might extract from it a subsistence, it could yield him no more, and he evidently looked upon it as only subsidiary, for says—

"Too foud were I, here thus to lie,
Unless that wealth, might further health,
And profit some, should thereby come,
To help withall."

Tusser probably inherited, or had devised to him, the Chesterton property from some collateral relative resident there, for it is certain that some branch or branches of the Tusseres were resident at Cambridge. Evidence of this are the following entries in the Treasurer of the Borough's accounts:—

"1515.—Item, for the ferme of another tent tenement, sett and buyld in the said butterowe, in the tenure of Willelm. Tusser, xxvii. viii."

"1525-6.—Item, of Thoms Tusser for the ferme of another tent buyld in the said butt'rowe, xvii. viii."

"1530-31.—Item, of Thoms Tusser for the ferme of another tent in the butt'rowe, xxvii. viii."

The plague continued devastating London until 1575, and between that year and 1580 Tusser returned to the city. It seems from his own autobiography that he felt "Death drawing near," and in wise preparation he executed his will, as thus stated in its preamble:—"In the name of God, Amen. The xxv. of April, 1580, I, Thomas Tusser, of Chesterton, in the countye of Cambridge, gent., being feble in bodye, but perfecte in memorie, thanks be to God, doe make and ordaine this my last will and testament." It was drawn-up in accustomed legal phraseology by "John Plommer, of Barnard's Inne," and among the witnesses to its execution was "Francis Shackleton, the Parson of St. Myldred's, in the Poulterie," in which parish he seems to have resided, for in its church was this epitaph recorded by the chronicler Stow:—

"Here, Thomas Tusser, clad in earth, doth lie,
Who sometime made the 'Points of Husbandry':
By him, then, learn thou mayst,—here learn we must,
When all is done, we sleep and turn to dust:
And yet, through Christ, to heaven we hope to go,
Who reads his books shall find his faith was so."

The church of St. Mildred was destroyed in the Great Fire of London, and with it perished Tusser's monument.

The original will is not to be found, but there are registered copies at Doctors' Commons, and in the Registry of the Bishop of Ely. The will states that William Tusser, the testator's brother, who we mentioned as being Fellow of King's College, owed him on a recognisance, "three hundrethe and thirtie poundes." Of this sum the testator, Thomas Tusser, directs £50 to be paid to each of his four children, Thomas, John, Edmond, and Mary, on attaining the age of twenty-one, and £5 a year until they attained that age, "for and towards their bringinge-up." Then the testator bequeaths "unto Amye Tusser, my wyfe, the summe of foure score poundes." To his eldest son, Thomas, he also bequeaths "my bookes of musicke and virginnalls;" and after providing for remainders, and that his funeral should not be above the summe of twenty markes " (a mark was 13s. 4d.), he appointed his eldest son his executor, and "Edmund Moon, gent., father of the said Amye my wyfe, and grandfather unto my forenamed children, guardian and tutor unto my forenamed children, and supervisor and

overseer of this my last will and testament." The will was proved by Thomas, the testator's son, on the 8th of August, 1580, in the Prerogative Court of the Archbishop of Canterbury.

We have now recorded all the information we have been able to collect, and it only remains for us, in a final communication, to detail from his published works the information they afford relative to the gardening of the time during which he lived.

MESSRS. HOVEY & CO.'S COLLECTION OF PEARS.

To go into a full account of our entire collection I fear would fill too much space, and be a repetition of what I had in past years written upon the subject; but as your readers may know nothing of that, I gladly give you pretty nearly the information you ask. And here I may say your supposition in regard to the age of the oldest tree was pretty near right—viz., thirty years.

We began our collection of trees in the autumn of 1844, our object being the study of the nomenclature rather than any other purpose, the fruit being altogether of a secondary nature. At that time our ground had just been reclaimed from an old pasture, and we had but a small portion suitably prepared for trees. About one hundred trees were planted in the spring and autumn of 1842, and from one hundred to two hundred every year, as the ground was ready, up to 1855, since which time only few trees had been planted to take the place of those which gave out.

Our grounds are laid out in squares, measuring about 150 feet on the sides, and the walks separating these squares are just 8 feet wide. Upon each side of these walks—though but one part of our grounds—borders were prepared 6 feet wide by simply half-trenching, and the trees were set out in a single file in the centre, just 3 feet from the edge of the walk, and 6 feet from centre to centre of each tree, giving about twenty-five trees to each border. These borders number about seventy, and are planted with about 1800 Pear trees. The entire walks between the trees would extend, in a straight line, a distance of over a mile and a half. Such was the style and formation of our plantation.

Of course our object being to study the trees and test every known variety, they were planted as thickly as possible on account of space, and as many upon the Quince stock as we could get, supposing, at that time, that one Pear would grow as well on the Quince as another. Up to 1844 we had planted every variety to be found in the United States, and many from abroad; but in the autumn of that year we visited the English and French nurseries, and selected every variety that could be obtained. M. Jamin, of Paris, assisted us in securing as many as possible. These were all planted in nursery rows, ready for removal as soon as the ground was prepared; but many of them remained four or five years before removal, subject all the time to pruning and pinching to make them perfect pyramids.

From the commencement of planting, another object was to show the perfection of pyramidal training, and up to 1854 this was kept up, every good tree branching to the ground, perfect in symmetry and form; a magnificent show indeed—but all show—no fruit, except those on the Quince. Ten long years of care and labour gave us but a slight opportunity to test the fruit. In the meantime tree after tree on the Quince had given out, and their places been filled with others. We had then learned that but few varieties of Pears will succeed on the Quince, and we gave up that stock for every variety not already proved or reported to succeed, making the further provision in all future planting to have the Quince stock every alternate tree, so that the rows might be somewhat uniform in appearance. We had, at that time, probably some 1500 varieties of Pears. A year or two more of care and labour we thought would bring about the brilliant prospect of bountiful crops; but alas! they failed to come—more than half of our trees were varieties which would not grow on the ground. Many of the latter had already fruited and died, and their places been filled with duplicates or new kinds. What should be done with the others?

Long reflection and close observation told us the pyramid was too slow and labour too dear for us Americans. If we would have fruit we must stop the constant heading and pinching-in, but rather prune up; and acting upon our corrections, we decided to let the trees "alone." Away they went, apparently as happy as a bird loosed from its cage, and

as if thankful for the brief respite from the knife. Their long branches had scarcely more than a year's growth before they were actually weighed down with fruit. We had a little less of symmetry, but a deal more of satisfaction. Our first real crop was obtained in 1862, since which period it has varied from year to year, constantly increasing, and in 1873 measured 2200 bushels.

As we have stated, we have fruited since 1842 more than 1500 varieties, probably 2000. More than one-half of our trees have been grafted over, so that our collection is reduced to some 300 varieties. Thirty trees of Glou Morcean, Beurré d'Aremberg, Easter Beurré, and others, we regrafted last month.

The trees are slightly enriched every autumn, and the ground lightly dug every spring; every two or three years some of the longest branches are shortened in to prevent them from becoming too thickly crowded, and no other care has been given them the last ten years.—C. M. HOVEY, Boston, Mass.—(*American Gardener's Monthly*.)

GLAZING WITHOUT PUTTY.

THE *Journal* has from time to time contained suggestions and drawings of methods for avoiding the necessity of putty for the glass in greenhouses, and a recent number contained one which, though good, necessitates "packing" with nail-bag strand saturated with white lead. The accompanying drawing avoids this necessity, and all substitutes for putty, as will be seen on reference to it.

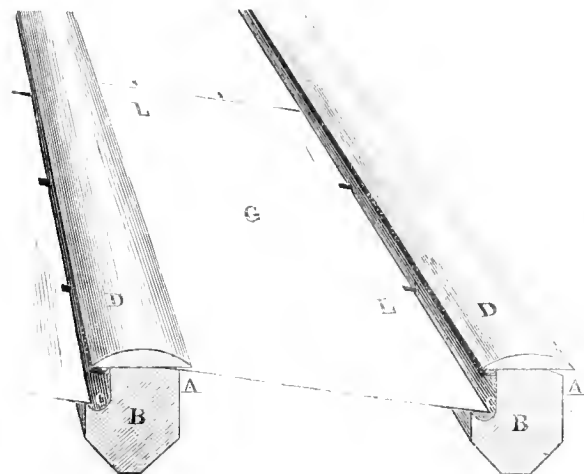


Fig. 56.

The left-hand side of the sashbar B (*fig. 56*), is hollowed-out to half the depth to form a channel, c, for the rain; the right-hand side at top, A, is bevelled for the glass to rest upon. On the sashbar is a cap, D, which may be rounded as in the drawing, or triangular, which would be more easily made; this may be permanently nailed on. Place the sheet of glass, G, on the bevelled part of the sashbar, pressing it well under the cap, and fix it by means of two or more pieces of lead clamps, L.

In addition to the usual inclination in the roof, there is also a fall from left to right in the glass, which projects halfway over the channel, the projection on the one hand and the cap on the other entirely preventing the rain from penetrating. A greater fall could be given to the glass by lowering the channel in the sashbar. A broken pane of glass can easily be replaced, or the whole may be removed for the purpose of being painted.—S. B.

NOTES AND GLEANINGS.

It is not generally known that the MAIDENHAIR FERN when cut and placed in water along with other plants speedily withers, but if kept by itself it will last for days. This curious phenomenon is more apparent if Mignonette or Heliotrope is along with it. Can this be owing to the odour emitted by these flowers?

— THE DROMORE HEATING COMPANY, formed for carrying into operation Cowan's system of heating by the aid of lime, is now established, and we are informed that they are erecting the apparatus in many places.

— ACCORDING to experiments lately made at Saint-Gobain, with PULVERISED BONES OF COD, from the fisheries at St. Pierre and Miquelon, it has been recognised that their *débris* could be used with great advantage as fertilising matter; but the quantities procured on the beach, where the fishermen leave them, would not be sufficient to furnish the basis of a large industry. The governing committee of the French permanent Exposition des Colonies is casting about, we learn, for a means of extending the supply. As far back as 1851 M. Demolon founded an establishment in Newfoundland, where the *débris* were boiled, dried, after extraction of the oil, and pulverised. Since then the idea has been taken up in Norway, and there is a growing demand in Germany and elsewhere for the pulverulent fish-manures. The fishermen of St. Pierre and Miquelon throw away the viscera, the middle skeleton, and most of the head of the cod; now they supply annually seven to eight millions of kilogrammes of prepared fish, and it is estimated that 890 kilogrammes of these give 1000 kilogrammes of *débris*; there is thus an enormous waste. The fishermen of the open sea could not probably be induced to keep the *débris*, and all that can be counted on at present is the local fishery, yielding about 2000 tons.

— SOME time ago the Paris authorities set up a large steam-engine at Clichy to supply the sandy plain of Gennevilliers, on the opposite side of the Seine, with SEWAGE WATER. The experiment has proved successful. The "*Journal of the Society of Arts*" says that the market gardeners are now eager for a full supply, and the machinery is not powerful enough for the extension of the service. The complaints of the increasing foulness of the river from the sewage still turned into it have become so loud, that it has been determined to erect another engine at the same place, so as to draw off 1000 to 1200 litres of sewage per second, which is about half the quantity brought by the collector; at the same time large conduits in masonry are to be constructed to carry the sewage to points which it has not yet reached. The cost of this work will be about £40,000.

— THERE are several modes of marking ZINC LABELS, the following are two of them:—Chloride of platinum dissolved in water will produce a permanent black stain on zinc. Use about a drachm to a half-pint of distilled or rain water. A strong solution of either nitrate of silver or sulphate of copper applied with a brush or a silver pen to the plate will have the desired effect. The plate must be well cleaned first.—(*English Mechanic and World of Science*.)

— WE notice with much pleasure that the Society of Arts has issued a prospectus of EXAMINATIONS IN THE TECHNOLOGY OF AGRICULTURE AND RURAL ECONOMY, proposed to be held annually by the Society, as a part of its excellent system of technological examinations in the various industries of the country. We sincerely hope that the proposed examinations will be largely the means of carrying out the object which the Society has in view in instituting them—viz., the promotion of a more extended and intelligent study of agriculture and of the sciences bearing upon it, by those intending to adopt farming as an occupation. The examinations will consist of three parts:—1, General Science, in which a very wide knowledge of the various sciences which lie at the basis of successful agriculture is demanded from the candidates; there are three certificates in this department—the elementary certificate, the advanced certificate, and honours. 2, Technology, in which a knowledge of the many points connected with agriculture and rural economy will be demanded from the candidates proportioned to the class in which they may have passed in the previous examinations; this examination looks very formidable on paper, and to pass creditably in it will demand extensive reading and hard work on the part of the candidates. 3, Practical Knowledge; under this head the candidate must forward to the Society of Arts a certificate, on a form supplied, signed by some agriculturist with whom he may have been practically engaged in farming operations, showing that he has a practical acquaintance with the subject. In order to render these examinations really useful, the Council are making application to the agricultural societies, local and general, for assistance in founding scholarships for successful candidates to undergo a regular course of instruction at an Agricultural College. We

hope the scheme of the Society of Arts will be productive of excellent results on the agriculture of the country.—(*Nature*.)

FLOWERS FOR OUR BORDERS.—No. 38.

BOMAREA ACUTIFOLIA.—POINTED-LEAVED BOMAREA.

THE Bomareas are very closely allied to the *Alströmérias*, and were formerly included with them. They differ, however, from the latter in their twining stems, and several details of their floral structure. In the genus *Alströméria* the two upper segments of the perianth differ generally from the others, either in form or colour, so as to give the flower an unsymmetrical appearance. In *Bomarea* it is destitute of this irregularity, the two series composing the flower, although differing slightly from each other, being composed of segments uniform in shape and colour.



Fig. 57.—*Bomarea acutifolia*.

Bomarea acutifolia is a tuberous-rooted plant, with twining stems, growing in the open ground to the height of 6 feet or more. The leaves are, as the trivial name suggests, long and pointed, smooth and dark green on their upper surface, but paler and strongly nerved on their under side, the nerves being clothed with numerous hairs. A curious feature, common, however, to all the species, as well as to the *Alströmérias*, is, the twisted petiole or leafstalk, by which the position of the leaf is reversed. It would seem as if Nature had, in a careless mood, originally attached the leaves upside down, and afterwards corrected the error by the very simple expedient of twisting the footstalk.

The plant luxuriates in a rich sandy loam, and when the soil is naturally heavy and retentive, a considerable proportion of sand should be mixed with it before planting the roots. In low moist situations it will also be highly desirable to place a few inches of drainage beneath the soil on which the tubers rest. This will give them a much better chance of enduring frost, for it is only in dry soils that they can be considered hardy. The tubers should be planted at least 6 inches deep, in a warm aspect; if at the foot of a south wall the plant will flower finer than in more exposed places.

When grown against a wall the stems of the plant may be secured to a narrow trellis; in other situations a neat stick will be requisite. In those localities in which there may be some risk in leaving the tubers in the ground through the winter, they should be carefully dug up soon after the stems

have died down, and be preserved in pots of sandy loam in a dry place until spring. It is not advisable to remove the soil entirely from them, or they will shrivel, and perhaps decay.

The increase of *B. acutifolia* may be effected by division of the tubers, or by seeds, which are usually ripened freely. Like those of some other endogenous plants, the seeds are apt to become so hard by keeping, especially if in a very dry place, that they will only germinate after a long interment, unless sown as soon as ripe, which is not always practicable or desirable.

This desiccation may be prevented to some extent by burying the seeds in a pot of sandy loam, which should be preserved in a dry cool place. It is usual to sow them on artificial heat in spring, but stronger plants are obtained by sowing in the open borders under a hand-glass about the middle of April. Soil of a light porous nature will be indispensable, and when the plants appear above ground air must be admitted, but they must be covered at night as long as there is any danger of frost. The snails and slugs are very partial to this genus, as well as to the *Alströmérias*, and should be watched for, or they will eat off a batch of seedlings in a single night. Some of the strongest plants may be expected to flower the second year, but generally blossoms are not produced until the third season.

In dividing the tubers, which in this and most of the species which have come under our notice, are small spherical potato-like masses, and suspended from the collar of the plant by a long footstalk, care must be taken to secure with each one of the eyes developed at the collar, the tubers themselves producing none.

Bomarea acutifolia is a native of the temperate parts of Mexico, where several other species are found.—(*W. Thompson's English Flower Garden, Revised by the Author.*)

NOTES ON VILLA AND SUBURBAN GARDENING.

THE time of year has arrived when it will be necessary to set about propagating bedding plants, and, as I imagine, there are very few whose gardens afford the convenience of a greenhouse, or a frame or two, and perhaps a few hand-glasses, who would not like to raise many of their own plants. It is a very pleasant and interesting employment, especially to those whose business calls them away for the greater part of the day, and when taken in time and ordinary judgment is used, the task is not a difficult one. It is reasonable to advise all those whose gardens are situated in or near the smoky atmosphere of large towns, and, perhaps, with scanty convenience, to aim at getting their young plants rooted and well established before the dull days of autumn and winter set in, and to begin to propagate those plants first which take the longest time to establish with limited means. This includes the different varieties of *Verbenas*, the several sorts of *Silver-variegated* and *Golden Tricolor Pelargoniums*. These last are mostly of slower growth than the coarser-growing *Bronze* or *Green Zonal* varieties. Another reason for early propagation is, that when only a frame is used there is a chance of working one batch of cuttings out of the way before others are put in.

In order to promote the quick rooting of *Verbenas* and other softwooded plants, such as *Heliotropes* and *Salvias*, and many other tender-wooded subjects, and likewise to secure a healthy leaf-growth, it is much the best plan to prepare a bed of heating material—such as leaves and manure of sufficient thickness, say 2 or 3 feet, beaten down tightly so as to prevent its heat from becoming strong, a very gentle heat only being required; or if there happens to be an old *Cucumber* or *Melon* bed, which with the addition of a little material would produce the requisite heat, so much the better. Place the frame upon this, fill-up inside to within a foot of the glass and firmly beat down, and if the cuttings are to be rooted in pots, cover the bed with 5 or 6 inches of coal ashes finely sifted. The pots may be plunged in these, which will keep the soil at a uniform heat. If the cuttings are to be rooted in the bed—which plan I think is much the better—instead of covering with coal ashes, 3 inches of finely-sifted leaf-mould and sand should be put evenly over the bed and pressed firmly down when it is in a moderately dry state. When the heat has risen, and there are no signs of its afterwards becoming strong or violent, the cuttings may be put in about an inch apart; make the soil firm about each cutting, and afterwards water moderately. Allow no strong sun to get at them until after they are rooted, neither allow the cuttings to flag. To prevent this, at times a gentle sprinkling overhead should be applied, and a little air given them until they are dry again. The cuttings ought not to be kept in a high temperature; only a mild and moderately moist one is needed. They may have air at times, and sometimes the lights may be thrown off for half an hour in warm mornings and nights.

When the cuttings have made good roots, say an inch or more in length, they will be fit to be transferred to pots or pans, and if more convenient, shallow boxes will answer as well. Whichever vessels are used they should be well drained, and the drainage covered with rough material so as to prevent the finer soil from washing-down and choking-up the outlets. Fill the vessels with a soil composed of two-thirds rich loam and the remainder well-rotted frame manure and sand thoroughly mixed. Put the plants about 2 inches apart and water well, and then take them to a cool frame, and set them on a bed of ashes; keep them a little close for a few days, and after that gradually let them have air, and they will become sturdy, strong plants; but as they grow, the strongest and most uneven growth should be repeatedly stopped, and all bloom-buds picked off.

Now, a word as to the selection of cuttings. Always look out for those shoots that have not flowered, not those even that are nearly approaching that period, for they are generally hard and wiry in the stem, and seldom root freely or ever make a plant worthy of the name under the best of treatment. The young tender-growing shoots are the very ones to seek for, and they are generally to be found about the heart or body of the plant. Each cutting should have at least two joints, and the lower leaves of one should be removed and inserted into the soil as above directed. Most of these softwooded bedding plants will root freely without a joint being left at the end; but if inserted so, the next joint above the end must be placed so that it comes in contact with the surface soil, and it invariably throws-out roots. This system is very useful when cuttings of a plant are scarce, and it is necessary to make every joint tell, but the plants require a little more care to establish, which few of those for whom I write are likely to have the convenience for. Moreover, I believe the plan is most suitable and would prove more successful for spring propagation, when the early spring months induce a more luxuriant growth in the plants that root quickly, and being assisted by increasing light and heat, such as that season would bring, plants would be more successfully reared.

The system of propagation above described would answer for nearly all bedding plants but *Pelargoniums*. Of these the variegated sorts should be propagated first, being more delicate, of weaker growth, and consequently longer in making a plant. They may be rooted either in or out of pots, the same as for Verbenas, but there is no need of making-up a bed for them. Place a few hand-glasses together upon a bed of coal ashes or any other bottom which worms are not likely to penetrate, if they are to be put in pots, otherwise a finely-sifted soil at least from 4 to 6 inches in thickness in the place of it, and the cuttings dibbled into it. I recommend, however, rooting them in pots filled with quite two-thirds coarse sand, such as washes down by the side of a road, adding a sprinkling of leaf mould and loam, to help to sustain a little vigour in the plants when rooted. Press them into the pots firmly and water well, place them under the hand-glasses, and allow them plenty of air at all times, but keep the tops of the lights on so as to shelter them from heavy rains. The sun will not hurt them; there is sufficient sustaining power in a cutting of this sort to carry it successfully through the ordeal of propagation, and it is the better for it, as it is harder and able to stand the winter better. Shading plants that will do without it makes them weakly and tender, more susceptible of injury from the sudden changes of temperature and situation. While cuttings treated in this way are rooting many dead leaves will appear. Now, my plan is to let these remain, for by pulling them off there is a risk of loosening the cuttings in the soil, which endangers them so much as to cause them to die-off in quantities. Touch them not until they are growing, and then the leaves may be picked-off in safety.

The next class I think about is the commoner sorts of Geraniums, such as Tom Thumb and other coarse-growing scarlet-flowering sorts. These will root very readily if dibbled into a bed of prepared soil on a border in the open ground, or under a wall perhaps would be better, where they might have protection afforded them if needed; but by rooting them in this way there is the double work of potting them into convenient pots and establishing them, whereas if they were rooted in pots this work would be spared and the cuttings do just as well. The latter for an amateur would be the more desirable plan, especially as with limited means for winter storing they would go into closer quarters and be moved about more conveniently when found necessary. In selecting cuttings for Geraniums, whether variegated or otherwise, the same rule must guide the propagator in his choice as for those of Verbenas and other tender subjects named above.—THOMAS RECORD.

DOINGS OF THE LAST AND PRESENT WEEKS.

KITCHEN GARDEN.

For work in this department twenty-four hours' steady rain would be acceptable, as in the dusty dry soil seeds cannot vegetate freely. Though most of the grain crops have been harvested,

large fields of Potatoes are all around us, and should a wet period occur, the disease, which in many instances has been detected, would doubtless assume a virulent character. It is of no use to come with the advice "Lift and store them;" eighty acres of Potatoes cannot be lifted and stored. A lengthened experience has taught the farmers that whether the market returns are high or low, it is the best policy to continue steadily lifting them, and send to market at once. There is also considerable loss with Potatoes stored in "clamps," or what in some districts are called "pits." What with loss in weight, storing, and weighing them up again, the cost is not less than 20s. per ton. Early Don (white) and the West Lothian Dalmahoy are most liable to the disease, and what is not required of these two sorts for plants next year will soon be all sent to market. Those who grow Potatoes for market would do well to try some of the new American sorts, not the reds, which partake of the character of Sutton's Flourball; these are too large and excessively ugly when grown in good soil. Springfield White, an enormous cropper, also ugly in shape, may do for cattle, but should be avoided as a field, garden, or market Potato. It is yet early to speak of the recent variety Snowflake, as it has only been proved during the present season in England; but Bresee's Climax has all the qualities of a first-rate market variety. In flavour it cannot quite come up to the best of the Regents, but it surpasses them in appearance, being round, and not having such prominent eyes; it is early, and an enormous cropper. Extra Early Vermont is also very early; 1 lb. weight planted in the garden, though the young growths were much checked by the frost, produced 80 lbs., and these contained a very large proportion of "ware."

Lifting the Onions. The surface of the ground is very dry, and no better manner of treatment can be suggested than to pull them up, lay them in rows on the surface of the ground, and when they are sufficiently dried store them away for the winter. An airy loft where they would be kept dry is a good place; there they should be spread out thinly on the floor, and if there is not accommodation of this kind, they may be strung up on ropes. Preparing the ground for the autumn-sown crop. It is well to sow now and also in spring. This year the spring-sown crop was the best; another season, owing to the maggot at the roots, the spring-sown crop may be a failure. Autumn-sown Onions do not suffer from the attack of the maggot; but as a rule the spring-sown stock do not start into growth so early in the spring as the others. Medium sized specimens keep better than very large examples. The Depthord is considered to be the best Onion for present sowing. We should also have made a sowing of Turnips in the garden, but that a large breadth has been sown in the field. A crop of Turnips after Potatoes is considered a paying crop by those who grow for market. Sprouting Broccoli and Coleworts also come in well. Sowed Parsley, and cut off the leaves from a portion of the old plants; these will form a fresh crop before winter, which will be much better for kitchen purposes than those which would be produced from plants not so treated.

FRUIT AND FORCING HOUSES.

Pinerics.—There are few gardeners having the charge of Pine houses who have not also the laudable desire to produce very large fruit. The plants are grown in large pots, and allowed plenty of space to develop, and with judicious treatment and well-directed energy no doubt success would be ensured. On the other hand, if one large plant has occupied the space that would otherwise have accommodated three smaller ones, and produced, after two years' growth, one fruit weighing, say 9 lbs., and the three plants would produce in from twelve to eighteen months three fruits to weigh 4 lbs. each on an average, then if such is the case, as no doubt it is sometimes, the large specimen has been obtained at too great a sacrifice. In most families fruit weighing 1 lbs. are more useful than large ones, while those who grow for market find that medium-sized fruit command the readiest sale, and are also more remunerative. All suckers that were potted six weeks ago should be examined. It is a serious mistake to allow them to become root-bound; when such is the case, the fruit oftentimes starts up prematurely. During the operation of potting it is well to be careful that no check is received; if the roots are in good condition and not matted, the ball ought not to be disturbed, but placed in the centre of the fruiting pot a little deeper than it was before, and the fresh compost rammed-in firmly around it. Old plants, from which the fruit has been cut when no suckers are wanted from them, are carried out to the rubbish heap at once, as if any insect pests are in the house, they are always more likely to be on the oldest plants.

ORCHARD HOUSE.

Nearly all the midseason fruit has been gathered, and upon the whole Peaches and Nectarines have been satisfactory; though the fruit has not been large the flavour has been good, and the latter quality is more important than the other. Plums and Pears grown in pots under glass and well exposed to the sun are fine, but they ought to have a house to themselves, and ought not to be with Peaches and Nectarines. The Peach delights in

a moist East Indian temperature just after stoning, and until the fruit is within ten days of being ripe. The Pear wants more ventilation, a drier atmosphere, and not quite such a high temperature. All the trees from which the fruit has been gathered would be potted at once, but other work is pressing, and that must be in abeyance for a few days. It is our usual practice to pot as soon as the fruit is gathered, nor do we make any scruple about reducing the ball of roots, and repotting in the same sized pot as that in which the trees were previously growing. If the roots are much hacked about, the trees will flag in the sun for a few days, but dousing the leaves over with water from the fine rose of a syringe will prevent them suffering to an injurious extent.

GREENHOUSE AND CONSERVATORY.

The choicer description of flowers are scarce at this season, either in the stove or greenhouse. As it is necessary to keep up a moist growing temperature in the stove, any plants in flower there are removed to the greenhouse. *Eucharis amazonica*, a veritable queen amongst bridal flowers, fades quickly in a stove temperature; either cut and the flowers placed in water indoors, or the whole plant removed to the greenhouse and shaded from the sun, they are much prolonged. Potting all hardwood flowering plants, as well as those grown for foliage; it is time all such work were done, in order that the plants may be well established before the cold weather comes upon them.

Recently the great value of the *Phlox* for decorative purposes in the greenhouse and conservatory was noticed; the plants are now nearly over, and as they go out of flower the stalks are cut down close to the surface of the pot, and the pots plunged in an open position out of doors. A new variety of the early-flowering section, named *Miss Robertson*, is said to be a great acquisition to the pure whites; and it must be a wonder in other respects, as a contemporary gravely informs its readers that if cuttings of this *Phlox* are put in in spring and grown vigorously in a cold frame until autumn, it will supply cut flowers at Christmas, and these are to be of a more lasting character than the usual run of forced flowers. Surely there is some mistake here, or *Miss Robertson* is quite different in character from other early-flowering *Phloxes*. With us cuttings of early-flowering *Phloxes* put in in spring flower in July, the late-flowering section in August; and as for the flowers lasting after they are cut, why, they fade as quickly as *Verbenas*.

FLOWER GARDEN.

We continue to get-in cuttings of all bedding *Pelargoniums*. *Mangles'* Variegated and the *Tricolors* strike root best under glass, the first-named in a close atmosphere, the others in a pit or house freely ventilated. All the more robust green and variegated varieties do well out of doors. We put in pipings of *Pinks*; it is rather late now, but under a north wall and protected by a glass frame they will no doubt form roots. *Pink* pipings should be put in about the end of June, and if they are taken from the plants in a wet day and inserted in the open ground they will do well; not one in fifty will fail.—J. DOUGLAS.

PROVINCIAL HORTICULTURAL EXHIBITIONS.

[SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held. Although we cannot report them fully, we shall readily note anything especially excellent, and we wish for information on such specialities to be sent to us.]

AUGUST.		SEPTEMBER.	
Skircoat (Yorkshire)	28	Alnwick	3
Sandy	28	Fermoy	3
Perth	23	Pasley	3
Chailey	28	Royal Oxfordshire	3
Falkirk	28	Woking	3
Bishop Auckland	28	Worsley and Swinton	3
St. Issell's (Cornwall)	28	Dundee	3, 4, and 5
Kilnham, Strone, and Blamore	29	Kenfrew	5
Thornhill (Yorks)	29	Brackley	8
Ryton	31	Kelso	8
		Eye	9
		Royal Caledonian Hort. Society	9
		Glasgow and W. Scotland	9
		Brighton	9 and 10
		Bury St. Edmunds	11
		Moffat	11
		Kilmarnock and Ayr	15
		Cambridgeshire	17
		Northampton	18
		Killington	21
SEPTEMBER.			
Barnsley	1		
Chippenham	1		
Daventry	1		
Manchester	2		
Undercliff	2		
Nottingham	2		
Bath	2 and 3		
Airdrie and Coatbridge	8		

TRADE CATALOGUES RECEIVED.

Sutton & Sons, Reading.—*Sutton's Autumn Catalogue of Bulbous Flower Roots, Seeds, &c.*

Dick Radclyffe & Co., 129, High Holborn, London.—*Catalogue of Dutch Bulbs, Sundries, Horticultural Decorations, &c.*

Joseph Schwartz, Rue du Repas, 43, à la Guillotière, Lyons.—*Catalogue et Prix Courant des Rosiers—Autumn, 1874, and Spring, 1875.*

J. Carter & Co., High Holborn, London.—*List of Dutch Flower Roots, Fruit Trees, Roses, &c.*

Hooper & Co., Covent Garden Market, London, W.C.—*Catalogue of Autumn Bulbs, &c.*

TO CORRESPONDENTS.

* * It is particularly requested that no communication be addressed *privately* to either of the Editors of this Journal. All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only.

We also request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

BOOKS (C. S.).—There is no work published on growing under glass fruit, &c., for market. (A. M. G.).—Hibbert's "Town Gardening."

PLUMBAGO LEAF (W. C.).—We do not think the variegation attractive.

GERANIUMS AND PELARGONIUMS (C. W. F.).—We have repeatedly published the botanical distinctions between these plants, but in the garden the bedding-out varieties are usually called *Geraniums*, and the pot varieties *Pelargoniums*. The French *Pelargoniums* have frilled petals.

ORCHIDS UNDER TREES.—VALLOTA LEAVES CURLING (Flora).—The trees not being very closely planted, though affording shade, the openers spots of ground will be suitable for the following plants of the *Orchid* tribe:—*Cypripedium acaule*, *C. macranthum*, *C. pubescens*, *C. latifolia*, *Gymnadenia conopsea*, *Habenaria hifolia*, *H. chlorantha*, *H. viridis*, *Listera ovata*, *Orchis maculata*, and *O. morio*. You may obtain plants of *Thalictrum minus* of any nurseryman dealing in herbaceous and alpine plants. It is difficult to account for the leaves of *Vallota purpurea* curling up, but we should think it arises from the plants being kept in a room of which the atmosphere is very dry. Place it out of doors from May to the middle of September, keep it well supplied with water, and afford it an open sunny position.

HYDRANGEAS AFTER FLOWERING (C. Cross).—If you have glass, keep them in a light airy position until the leaves fall; but if you have not a greenhouse, place them in front of a south wall, and water so as to keep the foliage fresh, and when the leaves fall plunge the pots in ashes to the rim in a sheltered position. The shoots that have flowered may be cut down to the next lower prominent eye or bud, and when the plants begin to grow repeat them and place in a window with a southern exposure, or give them the warmest position you can command out of doors. When they are growing water abundantly. At the base, or not very high upon rockwork, with good soil, abundant watering in summer, and a warm situation, we have no doubt they would do well, the main thing being to secure the ripening of the wood to make sure of future flowering.

ALPINE STRAWBERRY PLANTING (J. P.).—The Alpine Strawberries do not require different treatment from other kinds, only they need not be planted so far apart. The rows may be 1 foot apart, and the plants 9 inches from each other in the rows if plants from runners are employed, but such do not grow so freely as those raised from seed. We plant in rows 15 inches asunder, and the plants 1 foot apart in the lines. We think they do best on an east border. Now is a good time to plant them. There are but two kinds of note, the Red and White; but the Bush Alpine, which does not produce runners, is by some advised for edgings.

VARIOUS (A. G.).—*Gloxinias* done flowering should be kept drier, water being gradually withheld. The plants should be kept in the pots in a place safe from frost until started in February or March. *Cyclamen persicum* just reported keep in a cold frame on ashes until the end of September, and then place in a light airy position in the greenhouse, watering so as to keep the soil moist. If in small pots, they may be shifted into larger ones early in October. Pot Roses ought not to be pruned until the leaves fall. Pruning may be deferred until they are introduced into the house. They should, however, be kept rather drier. It should have a light airy position in winter, repotting in spring when it begins to grow, watering copiously when in free growth, and affording at that time slight shade.

GARDEN NOT FERTILE (H. L. E.).—We think the barrenness of the soil on the site of the old building is a result of its being kept for a lengthened period from the influence of the atmosphere combined with the dryness, the rains not being sufficient to thoroughly moisten it, and the season having been remarkably dry. All you require is a thorough moistening of the soil, and when this takes place we think you may safely venture Strawberries or any other kind of crop. It is likely the ground will not be in a fit state for cropping until the spring of next year.

SELLING TIMBER TREES (Hetherste Lodge).—The Elm will be worth something, as you surmise, for timber, for the sale of which consult a timber merchant. The *Sycamore*, forking as you describe, is worth very little except for firewood.

MUSA ENSETE FRUITING (J. F.).—It is because this plant is somewhat rare, but from its being largely grown for decorative purposes its flowering and fruiting will be common enough shortly. The *Datura* is undoubtedly a grand one, the largest we have seen noted.

GRAB EATING GRAPES (C. B.).—The depredator received some injury and is scarcely recognisable, but the indications suggest that the mischief is produced by the larva of a small moth, very possibly of *Carpeocapsa funebrana*, which in 1872 deserted its favourite Plum sometimes to attack ripe Grapes. In this instance, therefore, it is important to burn all infected Grapes that are removed, as, if thrown casually away, the moth may still appear to pursue the same course again.

GRAPES MILDEWED (E. O. C.).—As the fruit is "quite worthless," cut it off and throw it away, then syringe the Vines thoroughly with water in which

soft soap and flowers of sulphur have been dissolved, in the proportion of 2 ozs. of soft soap and 4 ozs. of the sulphur to a gallon of water. Take a portion of the mixture and add flowers of sulphur to it until it is of the consistency of thin paint, and with this paint the hot-water pipes or flue. The heating apparatus should then be made so hot that the hand may be held on it, but so that it feels rather uncomfortable. If you do this when you dust the Vines with the sulphur the mildew would have been destroyed. Ventilate freely, but judiciously; draughts check the Vine and predispose it to disease. In winter remove all the loose bark from the old wood after the Vines are pruned, and paint with a mixture of sulphur, soft soap, and a little tobacco water; we also add a little soot to it.

GRAPES DISEASED (*Mrs. C. H. J.*).—We never before saw Grapes so completely destroyed by mildew. Repeated dustings with flowers of sulphur, and when all the leaves are off the Vines painting the whole of the stems and branches and the entire house with lime water in which flowers of sulphur are mixed to a creamy consistency, will be needed to subdue the parasite. Next year dust with sulphur immediately if it reappears.

ARTEMISIA JUDAICA—**EDGING PLANTS** (*J. Kelly*).—*Artemisia judaica* is a silvery-foliaged plant about 1 foot to 15 inches high, of graceful habit and compact growth. It is a hardy shrub, but requires a well-drained sandy soil. *Achyrocline Saundersoni* is a silvery edging plant, attaining a height of 6 to 8 inches. *Veronica incana* is a grey or silvery edging plant, forming a thick edging about 4 inches high. For edgings it is the best of those you name.

CAPE BULBS (*J. Y. H.*).—*Crimia algosensis* and *C. aquaticum* should have liberal treatment during growth. Give abundant waterings and sprinklings overhead morning and evening, afford a light and airy position, and keep rather dry in winter. *C. aquaticum* should have the pots set in saucers of water during summer. They require a warm part of the greenhouse. *Hæmantis filicatus* and *H. coccineus* flower before the leaves are produced. They require to be duly supplied with water while growing, and withhold water gradually after they begin to decay. *Brunsvigia Josephine* requires to be well watered when in growth, and to be kept dry when at rest, with a light and airy position in a greenhouse. *Cyrtanthus obliquus* needs free watering during the period of growth, and should have a light airy position in winter, with just enough water to keep the foliage fresh. They should all be placed deep enough in the soil to cover the bulb to the neck. Report when they are in growth, affording good drainage, with a compost of turfy yellow loam two parts, and one part each leaf soil and sandy peat, and a sixth of sand. The pots need not be more than three times the diameter of the bulbs.

HEATING GREENHOUSE (*C. E. P.*).—Your greenhouse for the wintering in safety of the plants you name will need to have frost excluded. Two 3-inch pipes along the front of the house and one end would give you the required temperature in winter—i.e., 40° to 45° from fire heat. A stove boiler would be most suitable. A dozen good *Fuchsias* are: *Dark* (single)—*Try-me-Oh*, *Crown Prince of Prussia*; *Dark* (double)—*Avalanche*, *King of Doubles*. *Whites* (single)—*Mrs. J. Lye*, *Minnie Banks*, *Arabella Improved*; *White-coralis* (single)—*Delight*, *Gem* (Cannell's); *White-coralis* (double)—*Avalanche*, *Little Alice*, and *Striata Splendour*. The specimen sent us is a curious malformation, one segment of the calyx is winged on each side with half a leaf. The specimen is very vigorous and handsome. Do not alter your treatment.

GAS FOR HEATING (*An Admirer of Nature*).—For a small glazed structure for winter protection it is well known, as you say, that gas is effectual, not expensive, and requires the minimum of attention. It is also well known that the fumes from burning gas are destructive of plant life. Arrangements are always made to prevent it, and those arrangements must vary to meet other requisites.

EBONY FROM SEaweeds (*H. C. S. D.*).—We are informed by "G.," whose Aberystwith notes, page 116, you refer to, that he believes all the Fuci are available for the purpose, and that they should be used dry yet fresh. The far greatest bulk of the Aberystwith Seaweeds is the *Fucus vesiculosus*. "G." was only a visitor at Aberystwith.

DESTROYING WASPS (*G. W. H.*).—We do not know Scott's mixture. It should be advertised. Our correspondent recommends boiling water to be poured into the nest, but the nest and its entrance must be peculiarly situated.

NAMES OF FRUITS (*Viridis*).—The Apple is Sops-in-Wine. We think a good deal of your scolding Grape, and would like to see a well-grown bunch. (*G. Unthank*).—*Caillat Rosat*. (*J. Woodlight*).—1, Early Harvest; 2, this is not Jonanet, and we do not know it; 3, Keswick Codlin. (*G. Diss*).—*Plums*: 1, Diamond; 2, Orleans; 3, Goliah; 4, Victoria.

NAMES OF PLANTS (*J. W.*).—The specimen was very withered; we believe it to be *Diphysa californicus*. (*An Old Subscriber*).—*Pinus macrocarpa*, a native of California. No specimen numbered 2 reached us. 3, *Tamarix indica*. (*Lady Maria*).—1, *Rhus Cotinus*, poisonous; 2, *Clematis lanuginosa*; 3, *Cypripedium macrocarpa*, becomes a large tree, but does not spread out "like a forest tree." (*Minax*).—*Alyssum saxatile variegatum*. (*S. Filpo*).—We cannot name plants from leaves only. (*G. W. L.*).—*Eranthemum Andersoni*. *Mast*. (*Bot. Mag.*, t. 577). *Flora*.—*Epipactis latifolia*. (*B. A.*).—*Spiraea alba*, native of North America. (*B. Veratrum*).—*Salicaria Braunii*, *Baker*, *Clethra arborea*, *Ait.* (*G. B. C.*).—*Veratrum ulmum*, and a *Thalictrum*, probably *T. minus*. (*Mrs. Parry Jones*).—*Cyrtanthera magnifica minor* (*Justicia carnea*, *Bot. Mag.*, t. 3353). (*R. W.*).—*Panicum capillare*.

fowl or chicken can be eaten—juicy, succulent, white, and so tender that it may be carved with fork and spoon. This can only be done by continuous hatching. Perfect table poultry is yet unknown to many an ardent amateur. There exists with them a time when fowls are either out of season or so hard they can scarcely be eaten. For perfect table poultry a pullet that has laid is out of the question. Fowls hatched in the early spring grow a third faster than those hatched in the autumn. The natural time for moulting is when the duty and strain of breeding is over. Fowls do not moult the first year (unless they are very early and have become hens), but they change their feathers. In the same way a young cock Pheasant changes his brown for his beautiful plumage. First one feather appears, then another, then brilliant patches are seen, and at last he shines in lovely plumage. A chicken appears all down, then wing and tail feathers appear; hen plumage covers the body, but it is not hard feather—handled, this plumage feels like cobweb. This also disappears, and then the clothing is that of an adult, lasting till laying, sitting, and the maternal duties are over. The feathers are, however, worn out, the back is naked among the hens and pullets. The combs shrivel and look dead, and the whole remaining strength of the bird seems devoted to the formation of the new plumage. As an average this will begin in July, and be over in October. There may be sports and occasional deviations, but this is the natural season.

EDENBRIDGE POULTRY SHOW.

THIS was held on the 19th inst. The following are the awards:—

DORKINGS.—*Coloured*.—*Cock or Cockerel*.—1, W. J. Russell. 2, R. Cheesman. 3, G. Field. *Hens*.—1, T. C. Burnell. 2, G. Field. 3, C. McNiven; 2, Marsh. **DORKINGS**.—*Silver-Gray*.—*Cock or Cockerel*.—1, T. C. Burnell. 2, C. McNiven. *Hens*.—1, Mrs. Lee. 2, J. Francis. 3, C. McNiven. **SPANISH**.—1, E. Winwood. 2, J. Francis. 3, A. S. Owen. **COCHIN-CHINA**.—*Buff or Cinnamon*.—1, E. Winwood. 2, E. Goodwin. 3, Mrs. A. De H. Christy. *White*.—1, R. S. Woodgate. *Any variety*.—*Cock or Cockerel*.—1, R. S. Woodgate. 2, A. A. Vander Meersch. 3, B. Haines. **BAHMA**.—*Pouter*.—*Dark*.—1, Mrs. Lee. 2, R. Sheppard. *Light*.—1, S. P. Broad. 2, Capt. G. F. Talbot.

GAME.—*Black-breasted or other Reds*.—1, F. Warde. 2 and 3, G. H. Fitz-Herbert. *Any other variety*.—1 and 2, G. H. Fitz-Herbert. 3, B. Mollett. *Any variety*.—*Cock or Cockerel*.—1, F. Warde. 2, B. Mollett. 3, R. A. Boissier.

HAMBURG.—*Gold or Silver-spangled*.—1, J. Long. 2, C. E. L. Lucas. *Gold or Silver-pencilled*.—1, J. Long. 2, Master W. M. Cayaleit. 3, H. Kelsey.

POLISH.—1, J. Long. 2, R. S. Woodgate. **HOUDANS**.—1, W. Dring. 2, R. A. Boissier. *he*, Master W. M. Cayaleit.

BANTAMS.—*Game*.—1, W. S. Marsh. 2, J. Long. *Any other variety*, not *Game*.—1, R. S. Woodgate. 2, Mrs. Lee. *he*, A. A. Vander Meersch. *Any variety*.—*Cock or Cockerel*.—1, W. S. Marsh. 2, Capt. G. F. Talbot.

ANY OTHER VARIETY.—1, R. S. Woodgate (Silkies). 2, J. Long (Black Hamburgs). *he*, Rev. N. J. Ridley (La Fleche). 3, S. P. Broad (White Silkies).

SELLING CLASS.—*Cock or Cockerel*.—1, R. A. Boissier (Houdan). 2, Rev. N. J. Ridley (Cochin). *Hens*.—1, E. Winwood. 2, J. Francis (Spanish). *he*, Miss Morrison (Andalusians); Mrs. A. De H. Christy (Buff Cochins). 3, A. S. Owen (Spanish).

ANY VARIETY.—*Cockerel*.—1, W. Dring (Houdan). 2, F. Haines (Light Brahma). *he*, A. Bentley (Black Spanish); B. Mollett (Duckwing Game). *he*, J. K. Lawther (Dark Brahma); Mrs. A. De H. Christy (Buff Cochins); E. Haywood (Dark Brahma). *Pullets*.—1, R. S. Woodgate (White Cochins). 2, F. Haines (Light Brahma). *he*, R. Cheesman (Coloured Dorkings); B. Mollett (Duckwing Game). *he*, W. Dring (Houdans); Mrs. A. De H. Christy (Buff Cochins); E. Haywood (Dark Brahma). 3, Capt. G. F. Talbot (Light Brahma); Miss Pottley (Game Bantams); W. J. Russell (Dorkings).

DECKS.—*Aylesbury*.—1, C. McNiven. 2, N. Edgill. *he*, Mrs. A. De H. Christy. *Rouen*.—1 and 2, C. Brown. 3 and 4, G. Field. *Any other variety*.—1 and 2, S. P. Broad. 3, T. G. Farmer. *he*, L. G. Morrell. 4, A. Glover.

GEES.—1 and 2, G. Field. 3, Mrs. Lee. 4, C. E. L. Lucas.

TURKEYS.—1, G. Field, Norfolk. *he*, F. Warde, Cambridge.

PIGEONS.

CARRIERS.—1, A. Bentley. 2, J. Francis. **TRUMPERS**.—1, A. Bowman. 2, T. Marsh. **ANY OTHER VARIETY**.—*he*, and *he*, A. A. Vander Meersch. 2, A. Easty. 3, A. S. Owen (Blue-shouldered Turbitts); W. R. Killick (Magpies); A. A. Vander Meersch.

RABBITS.

LOP-EARED.—*Duck*.—1, W. Layton. 2 and 3, — Stedman. *Doc*.—1 and 2, — Stedman. 3, R. A. Boissier. 4, W. M. Hen.

ANY OTHER VARIETY.—1, R. A. Boissier (Himalayas). 2, — Stedman. *he*, Miss M. L. Gower.

SELLING CLASS.—1 and 2, — Stedman (Egyptian). 3, E. J. Rogers. *he*, Capt. G. F. Talbot.

JUDGE.—Mr. Matthew Headley, Claremont, Redhill.

DURHAM POULTRY SHOW.

THE annual Show of the Durham Agricultural Society was held on the racecourse on the 21st inst. The day was very fine and hot, an excellent marquee was provided, and the poultry were well protected in comfortable wire pens. The entries were larger than heretofore, although no alteration had been made in the list of prizes.

Cochins, as may be expected, were an excellent class, grand old Buffs winning the prizes, and an excellent pen of White chickens was very highly commended. Some of the pens of *Brahmas* were empty, though the winners were tolerably good adult birds. *Dorkings* came next. The winners of the Dark variety were very good. Of *Spanish* there were only four pens, all old birds; the first a good pen, but the second almost done, although good in points. *Game* had only one class, and only six entries. The winners, which were Brown Rels, showed great quality, although the first were in deep moult. Gold-spangled

POULTRY, BEE, AND PIGEON CHRONICLE.

MOULTING.

WE believe a few general rules will answer the queries of "E. H. R.," and others. The earlier chickens are hatched the easier they are to rear; but it is altogether wrong to advise none but March or April pullets. Many of the best fowls of the year are hatched in May, and their growth is often marvellous. Not only must those who look to eggs as the principal profit to be derived from poultry, hatch nearly all the year round, but those whose calling it is to supply the London market with its celebrated poultry are compelled to do the same. It involves expense, and therefore it must be dear; but it is a fact that in London, in any weather and at any time of the year, a perfect

Hamburghs were poor, except the winners; but in Silvers the first and second were capital chickens; a commended pen contained a model cock with a very inferior hen. Golden-pencilled had eleven entries, and most of these contained some good birds; the winners being good adult birds and pretty closely run. In Silvers there were but three pens, but these were good. Game *Bantams* were a strong class, and the competition close, the winners being Brown Reds. The first was an old cock with a pullet, and the second both aged. *Bantams*, any other variety, were all Black with the exception of one pen of Grey Japanese, and the first-named breed won.

In the general variety class some good *Crève-Cœurs* were shown, as also *Houdans*; but the great features of the Show were the two classes of *Ducks*, especially the Rouens, which were nearly all noticed, the size, marking, and beaks being as nearly perfect as possible, the Aylesbury losing only in point of numbers. The quality of colour and beak was all that could be wished for.

There was a nice show of eggs and butter under the same tent; the eggs, though not of the largest, were well selected, and uniform in shape, size, and colour.

COCHINS.—1, 2, *etc.*, and *hc.* G. H. Procter, Durham. c, J. Flin O'G, Lesrate, Durham.
BRAMA FOOTRIS.—1, R. Shield, Swatwell. 2, Rev. R. L. Story, Lockington Village, Derby. *hc.* J. Anderson, Setghill, Northumberland; T. Dobson, Kirbymoorside.

DORRINGS.—1, W. Morfitt, Goole. 2, J. White, Warley.
SPANISH.—1, W. Jagger, Blyth. 2, J. F. Walton, Rawtenstall. *hc.* R. Shield; Pallister & Hawkins, Topcliffe, Thirsk.

POLANDS.—1 and *hc.* J. T. Proad, Binschester. 2, W. Bearpark Northallerton. c, R. Parsons, Bedlington.

GAME.—1, Miss M. J. Nelson, Cockshaw. 2, D. Chayne, Morpeth. *hc.* J. Gibson, Stanhope. 3, T. J. Munn, Ebbw Vale. W. F. Pitt, Middleburgh.
HAMBURGHS.—*Golden-spangled*.—1, R. Keenleyside, Aycliffe, Darlington. 2, T. Horne, Tow Law. *Silver-spangled*.—1, R. Keenleyside. 2 and c, G. Stalker, West Sleekburn. *hc.* G. Alderson, West Hartlepool.

HAMBURGHS.—*Golden-pencilled*.—1, T. & G. Kidson, Norby, Thirsk. 2, J. W. Gibb, Sunderland. *hc.* Wells & Sherwin, Ripon. *hc.* J. Webster, Whitby. c, G. Alderson; G. Pounder, Kirbymoorside; J. Forster, *Silver-pencilled*.—1, J. Jackson, Tow Law. 2, R. Parsons, Bedlington. *hc.* R. Keenleyside.
BANTAMS.—1 and *hc.* G. Hall, Kendal. 2, Miss M. J. Nelson. *hc.* Miss M. J. Nelson; W. Canney, Bishop Auckland; W. Gray, Tow Law (2). c, T. Ayre, Bishop Auckland. *Excerpt Game*.—1, R. H. Ashton, Mottram. 2, Wells & Sherwin. *hc.* R. H. Ashton; W. F. Pitt; R. Parsons. c, W. Laing, Sunderland; W. Canney.

ANY OTHER VARIETY.—1, J. F. Walton. 2, Rev. J. G. Milner. *hc.* W. Laing, T. P. Carver, Langthorpe. *hc.* W. Edson. c, H. A. Cave.
SPANISH.—*Rouen*.—1, Miss M. J. Nelson. 2, W. Canney. *hc.* Miss M. J. Nelson; W. J. Robinson, Newcastle-on-Tyne; G. Pounder; A. M. Balmer, Bishop Auckland. *hc.* D. Sharpe, Brancepeth. *Aylesbury*.—1 and *hc.* T. P. Carver. 2, W. Stonehouse. *hc.* T. Dobson; J. W. Brockbank, Kirkstanton; A. M. Balmer.

JUDGE.—Mr. E. Hutton, Pudsey, Leeds.

HETTON POULTRY SHOW.

CLOSELY following the Show at Bishop Auckland was that at Hetton-le-Hole, held on the 12th inst., and on this account the entries were much better than they otherwise would have been, for though the classes were pretty numerous, the prizes were small. Unlike its predecessor, at this Show an excellent tent was provided, and the whole was well arranged and managed; but we must confess our surprise that the Society, which does not hesitate to go to the expense of one of the best military bands, does not offer a more attractive list, which would pay very much better than the one now presented. Adult birds were good for the time of year. Among them we may note the *Cochins*, *Polands*, and *French* fowls in the Variety class, as well as the *Ducks*, which were of all ages; but the Game *Bantams* were one of the greatest features of the Show; the Red in particular were a grand lot, though some of the best were much out of feather. In the Variety colours, Piles of good points were first, and *Dackwings* second. In young birds, *Spanish* were poor, but the *Dorings* very good, while a large handsome pen of Light *Brahmas* stood first. *Hamburghs* were moderately good, while the *Bantams* were very good, and the Variety class was well filled with good birds of Black *Hamburghs*, *Cochins*, *Malays*, and other varieties.

PIGEONS were not remarkable, although there were some good specimens.

RABBITS.—There were two classes, but the mistake was made of classing them in pairs. The first and second in Lops were the same as at Bishop Auckland, and they were very good, but did not match in colour. The first in the next class were fine Silver-Greys, although very young, the second being Himalayan.

SPANISH.—*Black*.—1, Furness & Sudall. 2, R. Moore. 3, C. Nicholson.
DORRINGS.—1, T. P. Carver. 2, Mrs. Clarke. 3, A. Buglass.
COCHINS.—1 and 2, G. H. Procter.
BRAMA.—1 and 2, E. M. Moore.
HAMBURGHS.—*Golden-spangled*.—1, R. Keenleyside. 2, W. Whitfield. 3, T. P. Carver. *Silver-spangled*.—1, R. Moore. 2, G. Alderson. *Golden-pencilled*.—1, W. Whitfield. 2, Wells & Sherwin. 3, M. Hall. *Silver-pencilled*.—1, J. Ferry. 2, R. Moore. 3, W. Whitfield.

POLANDS.—1 and 2, A. Buglass. 3, J. Ferry.
GAME.—*Red*.—1, J. Ferry. 2, D. Chayne. 3, A. Buglass. *Any other colour*.—1, J. F. Walton.

GAME BANTAMS.—*Red*.—1 and 2, T. Clark. 3, D. Hunter. *Any other colour*.—1, W. Whitfield. 2, E. Walton. *Any other variety*.—1, J. Ferry. 2 and 3, Wells & Sherwin.

DUCKS.—*Rouen*.—1, W. Canney. 2, Mrs. Clarke. *Aylesbury*.—1, T. P. Carver. 2 and 3, R. Boddam. *Any other variety*.—1, T. P. Carver. 2, O. A. Young. 3, W. Canney.

ANY VARIETY.—1, E. Walton. 2, J. H. Walton. 3, T. P. Carver.

CHICKENS.

SPANISH.—*Black*.—1, Furness & Sudall. 2, R. Boddam.
DORRINGS.—1 and 2, Mrs. Clarke.
BRAMA.—1, T. P. Carver. 2, O. A. Young.
HAMBURGHS.—*Golden-spangled*.—1 and 2, R. Keenleyside. *Silver-spangled*.—1, R. Keenleyside. 2, J. Ferry. *Golden-pencilled*.—1, R. Keenleyside. 2, W. Whitfield. *Silver-pencilled*.—1, R. Keenleyside. 2, J. Hudson.
GAME.—*Red*.—1, J. F. Walton. *Any other colour*.—1, J. F. Walton.
GAME BANTAMS.—*Red*.—1, Wells & Sherwin. 2, W. Rogers. *Any other colour*.—1, R. Walton. 2, D. Hunter.
POLANDS.—1 and 2, A. Buglass.
ANY VARIETY.—1, G. H. Procter. 2, R. Boddam.

PIGEONS.—*Carriers*.—1, R. Bellerby. 2, G. Green. *Pouters*.—1, W. Laidlaw. 2, Wells & Sherwin. *Tumblers*.—1, Wells & Sherwin. 2, W. Laidlaw. 3, W. Laidlaw. 2, Wells & Sherwin. *Ones*.—1, R. Boddam. 2, R. Boddam. 3, W. Laidlaw. 2, W. Laidlaw. *Bards*.—1, Wells & Sherwin. 2, W. Laidlaw. *Tarbits*.—1, W. Laidlaw. 2, R. Boddam. *Jacobins*.—1, W. Laidlaw. 2, G. H. Caldwell. *Dragons*.—1, R. Bellerby. 2, Wells & Sherwin. *Any other variety*.—1 and 2, Wells & Sherwin.

RABBITS.—*Lop eared*.—1 and 2, W. B. Belden. *Any other Fancy Breed*.—1, J. F. Walton. 2, J. Keel, jun. *Common Breed*.—1, J. Hudson. 2, J. Thompson.

JUDGE.—Mr. E. Hutton.

WOODSOME POULTRY SHOW.

THE ninth annual Show was held at Woodsome in a large field within about four miles of Huddersfield, on the 19th inst.

Spanish were good, but there were only two pens. *Cochins* were numerous and good in old, while in young two grand pens won, both being Buifs. *Game* were not generally good, the winners even being clumsy and heavy-feathered. In *Hamburghs* Mr. Beldon won all but two prizes, and these he did not show for. In *Bantams*, *Game*, we thought the winners had seen Westfield, but they were certainly very good; and in the Variety class first came a neat pen of *Bouens*. *Ducks* in both classes were very good, especially the Rouens; and in *Geese* the only pair of Toulouse were large and well-shaped.

For the amounts offered the *Pigeons* were very good throughout; Mr. Crofts winning the lion's share of the prizes, Mr. Taylor also doing well.

In *Rabbits*, which had two classes, there was nothing of great merit, and the entries in poultry were but small—in consequence, no doubt, of larger and more attractive shows being on at the same time.

SPANISH.—1 H. Beldon, Goitstock, Bingley. *Chickens*.—1, H. Beldon.
COCHIN-CHINA.—*Cinnamon or Buff*.—1, J. White, Whitley, Netherpton. 2, C. Sedgwick, Keighley. *Chickens*.—1, H. Beldon. 2, C. Sedgwick.
COCHIN-CHINA.—*White*.—1, H. Beldon. 2, B. Lockwood, Makinghouse, Holmfirth. *Chickens*.—1, H. Beldon. 2, D. Cartwright, Holmfirth.
COCHIN-CHINA.—*Any other variety*.—1, J. White. 2, J. F. Johnson, Dogley. *Chickens*.—1, C. Sedgwick. 2, J. F. Johnson.
GAME.—*Black breasted or Brown Red*.—1, R. Walker, Gomersal. 2, H. Beldon. *hc.* J. Fortane, Keighley. *Chickens*.—1, Haigh & Berry, Shelly Woodhouse. 2, G. White, Denby.
GAME.—*Any other variety*.—1, R. Walker. *Chickens*.—1, G. White, Denby. 2, R. Walker.

BRAMA.—1, H. Beldon. 2, G. C. Orrah, Huddersfield. *Chickens*.—1, H. Beldon. 2, H. Digby, Acres, Lindley.

HAMBURGHS.—*Golden-pencilled*.—1 and 2, H. Beldon. *Chickens*.—1, H. Beldon. 2, E. Clayton, Keighley.

HAMBURGHS.—*Golden-spangled*.—1 and 2, H. Beldon. *Chickens*.—1, J. Newton, Silsden, Leeds. 2, J. Moore, Hollowate, Holmfirth.

HAMBURGHS.—*Silver-pencilled*.—1 and 2, H. Beldon. *Chickens*.—1, H. Beldon. 2, H. Beldon. *Silver-spangled*.—1 and 2, H. Beldon. *Chickens*.—1, H. Beldon. 2, H. Beldon.

BANTAMS.—*Game*.—1, T. Marsden, Wike, Bradford. 2, G. Noble, Stanciliffe, Denbury. *Chickens*.—1, A. Surden, Winley, Cleckheaton. 2 and *hc.* G. Noble.

BANTAMS.—*Any other variety*.—1, R. H. Ashton, Mottram, Manchester. 2, J. Brooke, Dalton Grange. *hc.* R. H. Ashton; C. & J. Hingworth, Hightown, Normanton. *Chickens*.—1, H. Beldon. 2, R. H. Ashton; C. & J. Hingworth.

ANY BREED.—*Chickens*.—1, W. Bentley, Uppertong. 2, J. Moore. *hc.* P. Dishy.

SPANISH.—*Aylesbury*.—1, C. Holt, Rochdale. 2, J. Newton, Silsden, Leeds. *hc.* J. Hey, Holey, Town. 3, J. Newton. 2 and *hc.* C. Holt. *Muscovy*.—1, J. Eastwood, Farnley Tyas. 2, E. Taylor, Crigglestone. *hc.* A. L. Jordan, Dalton, Huddersfield; E. Fearnside, Wakefield.

GESE.—1, J. White.
TURKEYS.—1, J. F. Johnson, Dogley. *Poult*.—1 and 2, J. F. Johnson.
GUINEA FOWLS.—1, J. Simeon, Storths, Birkby. 2, J. F. Johnson.

PIGEONS.

CARRIERS.—1 and *hc.* G. J. Taylor, Farnworth. 2, J. E. Crofts, Plythe. *POUTERS*.—1 and 2, G. J. Taylor. *hc.* J. E. Crofts; G. J. Taylor.

BARBS.—1 and *hc.* G. J. Taylor. 2, J. E. Crofts.
COMMON CREST DOVE.—1, W. Whitaker, Thorncliffe, Kirkstanton. 2, A. Hey, Thorncliffe, Kirkstanton. *hc.* S. & W. Sheard, Hightown, Normanton.

OWLS.—1, G. White. 2, Halliwell & Ingham, Halifax.
TUMBLERS.—1, J. E. Crofts. 2, J. H. Sykes, Huddersfield.

FANTAILS.—1, J. E. Crofts. 2 and *hc.* J. F. Loversedge, Newark. c, J. H. Sykes.
JACOBINS.—1, J. E. Crofts. 2, Halliwell & Ingham.

TRUMPETERS.—1, J. E. Crofts. 2, Halliwell & Ingham.

RABBITS.—*Lop eared*.—1, J. E. Crofts. 2, W. Wright, Holmfirth. *hc.* H. Digby. *Any other variety*.—1, A. Atkinson, Huddersfield. 2, J. Hadlas, Huddersfield.

JUDGES.—Mr. W. Cannan, Bradford, and Mr. W. D. Henshall, Highburton.

OXFORD POULTRY AND PIGEON SHOW, which is to be held in October, has one of the richest prize lists we have ever known. There are forty-two silver cups and pieces of plate for various classes of poultry, including one given by Prince Leopold, and two confined to Oxfordshire exhibitors. There are seven cups for Pigeons. There are forty-two extra money prizes for Oxfordshire exhibitors, and the money prizes open to all comers are very liberal. We commend the Exhibition to our readers, and

advise them to apply to the Secretary for a schedule. The Judges are Messrs. Esquilant, Hewitt, Jones, Teebay, and Tegetmeier.

NEATH POULTRY AND PIGEON SHOW.

A most important improvement was effected in the present year as regards this poultry show, it being held entirely under cover; and the Neath Market Place proved most suitable to the requirements, affording plenty of light, an equally good amount of ventilation, and the possibility, if needful, of accommodating twice the number of pens. Of the Committee we cannot speak more highly than they deserved, as they were constantly at their post, and the most efficient care was taken of all specimens confided to them.

Here at Neath, however, a mystery was solved: the poultry pens that should have done duty at the show at Chepstow the previous day, had many days before been sent also to Neath, so that so far from here falling short, they had poultry pens in superabundance; whilst by even more unaccountable neglect, no pens whatever for Pigeons ever came to hand for either the Chepstow or Neath Shows—a want that could only be met by additional and unexpected trouble in both instances. In Grey Dorkings the display was unquestionably a poor one, though an entry of nine pens, the three prizes only being awarded, but nothing more. *Cochins* of all kinds were decidedly above par, particularly the Buff and White-feathered. *Brahmas* of both varieties were shown of good quality, the chickens especially of either feather being as good as have been seen this season. The *Spanish* fowls comprised but two pens, the principal one being right good. The *Hamburgs* of every kind were grand, though mostly getting out of plumage. *Game* fowls were, with the exception of a pen or two, comparatively poor, and *Game Bantams* were also below par. The variety Bantam class was really first-rate. *Crève-Cœurs*, *Sultans*, and *Black Hamburgs* were the respective winners of prizes in the variety class for large breeds.

It is almost impossible to hope for better specimens than filled the two chicken classes, and here the Committee generously permitted extra prizes to be given. *Ducks*, *Geese*, and *Turkeys* were praiseworthy.

A spirited competition prevailed in the division of the Show for *PIGEONS*; in *Carriers*, *Jacobins*, *Short-faced Tumblers*, *Antwerps*, and *Fantails* particularly so. In the variety class for Pigeons a pen of perfect *Brunettes* are worthy of the highest approval. Fine weather and an abundance of visitors marked this Show.

DORKINGS.—1, A. Hamie, Tredegarville, Cardiff. 2, J. Walker, Rochdale. 3, H. Feast, Swansea.
COCHIN-CHINAS.—Buff and Cinnamon.—1 and Cup, C. Bloodworth, Bays Hill, Cheltenham. 2, J. Bloodworth, Cheltenham. 3, E. Winwood, Worcester. 4, H. Feast. Any other variety.—1, C. Bloodworth. 2, J. Bloodworth. 3, J. Walker.

BRAMA POOTRAS.—Dark.—1, T. F. Ansell, Cowley Mount, St. Helen's. 2, H. Feast. 3, W. Bevan, Swansea. Light.—1 and 2, T. A. Dean, Marden. 3, Mrs. H. Studdy, Ashdale, Herefordshire.

SPANISH.—1 and Cup, E. Winwood. 2, H. Feast.
HAMBURGS.—Gold pencilled and Spangled.—1, Mrs. Rolis, Monmouth. 2, H. Feast. 3, P. Hanson, Stonehouse. Silver-pencilled and Spangled.—1, J. Long, Bromley Common. 2, H. Feast. 3, J. Carr, Swansea.

POLANDS.—1 and 2, H. Feast. 3, No competition.

GAME.—1, H. Brown, St. Ansell. 2, H. Feast. 3, H. E. Martin, Sculthorpe. C. E. Winwood; D. W. J. Thomas, Brecon.

GAME BANTAMS.—1, J. Mayo. 2, T. Cropper, Bacup. 3, A. Ashley, Worcester. 4, J. Long; E. Payne, Cardiff. 5, T. Jones, Swansea; A. C. Bradbury, Nuthall, Nottingham.

BANTAMS.—Any other variety.—1 and Cup, J. W. Lloyd, Kingston. 2, R. H. Ashton, Mottram. 3, H. Yardley, Birmingham. 4, G. Holloway, jun., Stroud; T. Cropper; J. Mayo, Gloucester; H. Feast; J. Walker. 5, C. H. Pole, Bridgewater.

ANY OTHER DISTINCT BREED.—1 and 2, H. Feast (*Crève-Cœurs* and *Sultans*). 3, J. Richardson, Swansea (*Black Hamburgs*).

COCHIN-CHINAS, DORKINGS, AND BRAHMAS.—*Chickens*.—1 and Cup, T. A. Dean (*Brahmas*). 2, T. F. Ansell (*Dark Brahma Pootra*). 3, J. J. Bloodworth (*Cochins*). Extra 3, G. Lamb, Compton, Wolverhampton (*Partridge Cochins*). 4, Mrs. H. Studdy; T. A. Dean (*Brahmas*); Mrs. H. Feast (2); H. Feast. 5, A. Hamie; J. Long (*Light Brahma*).

ANY OTHER VARIETY.—*Chickens*.—1, D. W. J. Thomas (*Black Red Game*). 2, A. Bentley, Clements Lane, London (*Brown Red Game*). 3, C. Bloodworth. Extra 3, H. Feast. 4, D. W. J. Thomas (*Game*); J. G. H. Morris, Bridgend (*Brown Red Game*); P. Hanson (*Boudans*); Mrs. H. Feast; E. Payne (*Game Bantams*); C. H. E. Martin (*Game*); E. Winwood (*Game*); A. C. Bradbury (*Golden Schright Bantam*).

DUCKS.—*Rouen*.—1, Rev. J. J. Evans, Cantref Rectory, Brecon. 2, J. H. Hoit, St. Ansell. 3, J. Walker. 4, J. Saviour, Llynrhedol, Neath.

DUCKS.—Any other variety.—1 and Cup, A. C. Bradbury (*Aylesbury*). 2, S. R. Hains, Cusack, St. Day. 3, J. Walker (*Aylesbury*); Mrs. H. Studdy (*Aylesbury*); Mrs. M. H. Knight (*Bridgend Aylesbury*); Mrs. H. Feast. 4, Mrs. Rolis (*Aylesbury*); A. C. Bradbury (*East Indian*).

GESE.—1 and 2, Mrs. A. Studdy. 3, H. Gwyn. 4, J. P. James; A. C. Bradbury.

TURKEYS.—1, G. Llewellyn. 2, Mrs. A. Studdy; H. Cuthbertson.
SELLING CLASS.—*Cock and two Hens*.—1, C. Bloodworth. 2, Mrs. G. M. Rolis. 3, P. Hanson.

SELLING CLASS.—*Drake and two Ducks*.—1, J. Saunders, Corntown, Bridgend (*Rouen*). 2, J. R. Paramore, Neath (*Rouen*). 3, J. Saviour, Neath (*Aylesbury*). 4, J. Saviour (*Aylesbury*); Mrs. G. M. Rolis (*Aylesbury*).

LOCAL CLASS.—1, J. Jones, Neath (*Golden-pencilled Hamburgs*). 3, J. Evans, Neath (*Golden Hamburgs*). 2, Withheld.

PIGEONS.

CARRIERS.—1, P. R. Spencer, Hereford. 2, H. Yardley, Birmingham. 4, J. W. Lloyd, Kingston.

FOUTERS.—1, P. R. Spencer. 2, W. G. Davies, Swansea. 4, H. Yardley. 5, T. A. Dean.

TUMBLERS.—*Short faced*.—1, H. Yardley. 2, W. G. Davies. 4, D. A. Thomas, Aberdare; C. Pugsley, Swansea.

JACOBS.—1, H. Yardley. 2, W. G. Davies.
FANTAILS.—1, J. H. Watkins, Hereford. 2, J. F. Loversidge, Newark. 4, J. F. Loversidge; T. A. Dean.
NUNS.—1 and 2, T. A. Dean. 4, W. G. Davies. 5, H. Yardley.
BATES.—1, P. R. Spencer. 2, J. H. Watkins. 4, H. Yardley; W. G. Davies. 5, G. H. Gregory, Taunton.
ANTWERPS.—1, H. Yardley. 2, A. Bentley.
TREBIS OR OWLS.—1, H. Yardley. 2, G. H. Gregory. 4, A. Bentley. 5, W. G. Davies.
TUMBLERS.—1, H. Yardley. 2, No competition.
ANY OTHER VARIETY.—1, H. Yardley. 2, T. Cropper. 4, W. G. Davies. 5, G. Holloway, jun.

Mr. Edward Hewitt, of Sparkbrook, near Birmingham, was the Judge.

THE POULTRY-KEEPER.—No. 16.

THE BREDA—BLACK, WHITE, AND CUCKOO.

The three varieties of this breed are known in Holland under the unique name of "The fowl with a Crow's beak."

BLACK BREDA.

THE COCK—GENERAL CHARACTERISTICS.

Well-shaped and large in size. Body very flat, small tuft of feathers on the head; comb like a goblet; hackle thick; breast large and wide; feathers of the neck lengthened in form of a spur; foot feathered; plumage black.

Weight.—From 7½ to 8½ lbs.

Flesh.—Excellent, very abundant, and readily fattened.

Bones.—Light.

Size.—21½ inches.

Head (fig. 58).—Very strong, length 3½ inches. Aspect peculiar on account of the comb, which is rather a cavity than a pro-



Fig. 58.—Head of Black Breda cock.

minence, and gives to the beak a characteristic depression. This absence of comb is more remarkable, as the gills are of a good length, a contrast not remarkable in any other species. The comb should be in the shape of a small oval cup, rounded and rather projecting at the edge; being at the edge of the beak it covers the nostrils in the direction of the centre of the head, and is not more than 1½ inch in length by ½ inch in width. The colour is blackish, and the substance slightly horny. The comb in some birds is transversal, and has little depressions on the outside edges, which do not always mark degeneracy or mixture of blood. The regularly-formed comb, however, must always be preferred with the little oval cup to the regular edges.

Ears.—Small.

Wattles.—Very open, of remarkable size. Length about 2 inches, nearly as wide as long.

Cheeks.—Very apparent, and forming with the ear a fine red face, continued by the wattles close-up to the black plumage, and with a little black down invisible at a distance.

Tufts.—Black and very visible.

Beak.—Of the ordinary form, black at the base, and greyish at the end.

Eyes.—Deep red; pupil black.

Foot.—Of ordinary length, from 3½ inches to about 4 inches, circumference 2½ inches; furnished with stiff feathers from the top to the bottom, and laid one on the other like tiles. These feathers grow in rows placed above and by the sides of the sole, which they partly surround. They take in the heel and edge the toes without covering them; colour blackish. The top of the foot is covered by the feathers of the leg, forming a sort of spur bent inwards.

The plumage is a very fine pure black, iridescent with me-

tall colours, reflecting green, bronze, and indigo, especially in the covert feathers of the wings and the tail. The feathers of the sides, abdomen, and inside of the thighs are of a dull brownish black, those of the shoulders of an intense velvety black.

The hen of the Black Breda is exactly similar to that of the Cuckoo variety, of which we shall give a description.

The plumage of the Black Breda hen is like that of the cock, extremely brilliant and of a raven black; brilliant black and purplish. The cock and hen should have exactly the same characteristics in all three varieties. The Cuckoo or Flemish variety is the strongest; the White is the most tender, and is considered merely a fancy bird.

ROCHDALE POULTRY SHOW.

The annual Exhibition of the Rochdale Agricultural Society was held in the extensive grounds of C. M. Roys, Esq., on the 19th inst. The day was extremely favourable for the occasion, and the inhabitants of that thriving and populous district made the most of the opportunity and attended in great numbers. The patronage of the Messrs. Roys seems to be the heart and soul of the whole affair, and we feel quite certain the success for once achieved must be a source of high gratification to those gentlemen, for previous wet days had so disheartened the Committee, that had it been so this year we should no doubt have had the unpleasant reflection that this Society was numbered with the things of the past.

The specimens were shown in the open air, and the sun being very powerful, some of the birds suffered from the heat; but the attention was excellent, and nothing was allowed to escape the vigilant eyes of the attendants.

Poultry were young, and the entries numbered about 350. They were judged in sections, Mr. Teebay taking the larger varieties, Mr. Douglas the Game and Game Bantams, and Mr. Fielding the Hamburgs and Polands.

Of *Cochins* there were some very good birds, especially pullets; and though the *Spanish* did not tell up in numbers, yet the winners were very good, notably the first-prize pullet. In *Brahma* cocks Mr. Ansdell's cockerel was a grand bird, some others also showing promising points. Of pullets there were twenty-three, and many of them were very good; the winners large and capital in pencilling, but we preferred the second to the first-prize pullet, for, though smaller and younger, she showed more character. In *Game* cockerels the first was a fine promising Duckwing, and second a Black-breasted Red, a capital yellow-legged Pile receiving a high commendation. We thought it a mistake that some of the Brown Reds were not also noticed. In pullets the first was a good reachy Brown Red, and second Duckwing. In *Polands* the first in both cases were very good Golden. *Hamburgs* were good in most instances, Mr. Lane's cockerel and pullet being as well developed as old birds, and quite fit to hold their own in any section. *Silver-spangles* were very good, but not forward, while the first-prize Golden-pencilled cockerel was a model bird, as also the first-prize pullet, which showed rare quality of pencilling; but the best bird in the *Hamburg* classes was the first-prize *Silver-pencilled* cockerel, which we hesitate not to say is the best we have ever seen of his age. *Black Hamburgs* were very good in both classes, and many of the birds quite up in comb and feather. *Dorkings* were very good, the cup cockerel really good, but a little high in tail. The winning pullets were large, well made up, and good in colour. In the *French* class there was nothing of striking merit, nor in the varieties.

In *Game Bantam* cockerels occurred a mistake in judging. A Brown Red cockerel, such as has never yet been surpassed, was left out for a moderate Pile as first, and a bad one as second. In the next class a Pile in full bloom was first, and a Duckwing second, no commendations being given. In the Variety class of cockerels an old-style *Silver-Sabright*, most exquisitely marked, was first, and a White Rose-combed second; and in the next a pure white-ground *Sabright* pullet stood first, and a *Black* second.

Ducks and *Geese*, any age, were good classes, Mr. Walker taking most of the prizes.

PIGEONS were very numerous and well cared for, all the pens, which were substantially-made wooden ones, being well white-washed, a point we commend to the notice of other committees. Throughout, the quality was very high, as may be gathered by a glance at the prize list, many of the champions of the past season competing together, while numerous classes for birds of 1874 added greatly to the value of the list.

RABBITS.—Among *Lop-eared* bucks there was nothing of striking merit if we except the Sooty Fawn which took the first position; the length of ears was 21½ inches by 4½ in width. Does were grand, and all except one were noticed; the first, a Black-and-white, quite a baby, was 22½ inches by 4½, with such carriage and silkiness of ears as it has not been our lot to adjudicate upon of late. The second position was secured by a splendid Black-and-white, better in marking, size, and develop-

ment, but losing in style and texture of ear, as well as length and breadth (21½ inches by 1½). A nice Fawn was third as extra, being 20½ inches by 4½. This was a grand class. In *Silver-Greys* the first, a doe, won the medal for these and *Himalayans*, the quality of coat, silvering, and evenness being perfect; while the second, though a shade lighter, lost only in size; Miss Mortimer's grand doe being thoroughly beaten in this case, but awarded a third prize, many others running very close. *Himalayans* were not good as a class, but some good young ones were shown; the first two, an old buck and young doe, were far ahead of all the rest. *Angoras* were one of the best classes of the season, and three prizes were awarded; size, quality, and length of fur were very good. In *Dutch*, a *Blue* doe carried off the prize, and these were as nearly perfect as any we have seen; a young *Blue* not larger than a rat received a very high commendation. It was in deep moult, but we venture to predict that it will make one of the best in the fancy. Only two heavy *Rabbits* were shown, but these were of enormous size; the second, shown by Mr. Roys, was large in bone, but not half ma-le-up, and consequently not the heaviest. In the *Selling* class a very good *Silver-Grey* was first, and it was soon claimed; the second was a *Lop*. Other *Silver-Greys* and *Lops* came in for commendations.

SPANISH.—Cockerel.—1, H. Wilkinson, Earby. 2, H. Beldon, Goitlock, Bingley. Pullet.—1, H. Beldon. 2, G. Bentley, Rickmansworth. *he*, T. Blake-man, Tettenhall; H. Wilkinson.

COCHINS.—Cockerel.—1 and 2, C. Sidgwick, Ryddlesden Hall, Keighley. 2 and *he*, W. A. Taylor, Manchester. Pullet.—1 and 2, W. A. Taylor. *he*, J. J. Malden, Bingley; R. P. Percival, Northenden, Manchester (2); G. Palfreyman, jun., Healey, Sheffield; C. Sidgwick (2); W. A. Taylor; J. E. Walker, Rochdale. *c*, T. M. Deery, Gledyay.

BRAHMAS.—Cockerel.—1, T. F. Ansdell, Cowley Mount, St. Helen's. 2, R. P. Percival. *he*, C. Holt, Rochdale; J. H. Pickett, Birkdale, Southport (2). Pullet.—1 and 2, J. E. Waker. *he*, T. F. Ansdell; W. H. Crabtree, Levenshulme; E. Kendrick, jun., Lichfield; J. H. Pickett (2); R. P. Percival; J. Watts, Hazlewell Hall, Birmingham.

GAME.—Cockerel.—1, J. Fletcher, Stoneclough. 2, Capt. Mitchell, Rossendale. *he*, J. E. Walton, Kewstall. Pullet.—1, T. Dyson, Halifax. 2, J. Fletcher. *he*, W. Ormerod, Todmorden.

POLANDS.—Cockerel.—1, T. Dean, Keighley. 2, J. Fearnley. *he*, T. Dean; J. Fearnley; J. Long, Bromley Common. Pullet.—1 and 2, T. Dean. *he*, J. Long.

HAMBURGS.—Golden spangled.—Cockerel.—1 and 2, T. E. Jones, Wolverhampton. *he*, T. May. Pullet.—1, T. E. Jones. 2, T. May, Wolverhampton.

HAMBURGS.—Silver spangled.—Cockerel.—1, H. Beldon. 2, J. Fielding, New-church, Manchester. *he*, J. Robinson, Garstang. Pullet.—1, J. Fielding. 2, H. Beldon. *he*, T. Fawcett, Baidon.

HAMBURGS.—Golden pencilled.—Cockerel.—1, T. Fawcett. 2, W. Speakman, Nantwich. *he*, E. Clayton, Keighley. Pullet.—1, H. Beldon. 2, W. Clayton. *he*, W. Driver, Keighley (2).

HAMBURGS.—Silver pencilled.—Cockerel.—1, H. Beldon. 2, J. Long. *he*, J. Robinson; H. Smith, Keighley. Pullet.—1, J. Long. 2 and *vice*, Rev. — Bracewell, Earby, Skipton.

BLACK.—Cockerel.—1, C. Sidgwick. 2, J. Long. *he*, H. Beldon; T. Holmes. Pullet.—1, N. Marlor, Denton. 2, C. Sidgwick. *he*, H. Robinson; C. Sidgwick.

DORKINGS.—Cockerel.—Cup and 1, G. Fox, Wilmslow. 2 and *he*, S. Brierley, Endring, Rochdale. Pullet.—1 and 2, T. Bridal, Cononley. *he*, S. Brierley.

CREVE-CEUR, HOUDAN, LA FLECHE, or MALAY.—Cockerel.—1, J. J. Malden. 2, G. W. Hibbert, Godley, Hyde. Pullet.—1, G. W. Hibbert. 2, J. J. Malden.

ANY OTHER DISTRICT BREED EXCEPT BANTAMS.—Cockerel.—1, J. Long. 2, O. E. Renswell, Early Wood, Bagshot. Pullet.—1, J. Long. 2, R. S. Woodgate, Penbury, Tunbridge Wells.

GAME BANTAMS.—Cockerel.—1, R. J. Hartley. 2, A. Smith, Northowram. *he*, W. F. Entwistle, Westfield, Bradford (2). Pullet.—1, G. Evans, Worcester. 2, W. F. Entwistle.

BANTAMS.—Any other variety except *Game*.—Cockerel.—1, J. W. Morris, Rochdale. 2, F. Cropper. Pullet.—1, M. Leno, Markyate Street, 2, H. Feast.

DOCKS.—Aylesbury.—1, J. Walker. 2, R. Hutchinson, Rochdale. *he*, J. Wakefield. 2, J. Walker. *he*, P. Unsworth, Lewton (2); J. Walker. Any other variety.—1 and 2, H. B. Smith, Brooklands, Broughton. *he*, M. Leno; H. B. Smith; J. Walker (2).

GEES.—1 and 2, J. Walker. *he*, R. Hutchinson.

TURKEYS.—1, J. Walker. 2, M. Lord, Stead Hey Bottom, Warble.

SELLING CLASS.—Male.—1, W. Ormerod. 2, J. Walker. 3, C. Holt. *he*, J. E. Fletcher. Female.—1, J. Walker. 2, J. H. Pickett. 3, S. Lord, Shawclough (Braham).

PIGEONS.—SINGLE BIRDS.

POUTERS.—Red or Blue.—Cock.—1, R. Fulton, Brockley Road, New Cross. 2, W. Harvey, Sheffield. 3, E. Horner, Harewood. *he*, R. Fulton; W. Harvey. Hen.—1, E. Horner. 2, W. Harvey. 3 and *he*, R. Fulton.

POUTERS.—Any other colour.—Cock.—1 and 2, R. Fulton. 3, E. Heath, Blackburn. Hen.—1 and 2, R. Fulton. 3, Major Cryer, Southport.

CARRIERS.—Black.—Cock.—Medal, 1 and 3, R. Fulton. 2, R. Spencer, Hereford. *he*, T. Crisp, Southall. Hen.—1 and 3, R. Fulton. 2, E. Horner. *he*, G. Bentley; R. P. Spencer.

CARRIERS.—Any other colour.—Cock.—1, R. Fulton. 2 and 3, E. Horner. *he*, T. Crisp; R. Fulton. Hen.—1 and 2, R. Fulton. 3, J. Stanley. *he*, T. Crisp; E. Horner.

CARRIERS.—Young.—1 and 2, W. Bulmer, Spalding. 3, Major Cryer; W. Massey. Extra 3, J. Stanley, Blackburn. *he*, W. Bulmer; T. Crisp (2); R. Fulton; J. H. Ivimy, Basingstoke (2); W. H. A. Miller, Walsall; J. Stanley.

TUMBLERS.—Almond.—1, H. Yardley, Birmingham. 2 and 3, J. Ford, Monkwell Street, London. *he*, R. Fulton; W. Harvey. 3 and 4, J. Ford. *Any other variety*.—1, J. Baker, Kew Bridge. 2, J. Ford. 3, W. Harvey. *he*, R. Munnit, W. W. Garage, Rochdale (2); T. W. Oddie, Bury; A. & W. H. Silvester, Sheffield (2).

BALDS OR BEARDS.—1 and 2, T. W. Woodhouse, Lynn. *he*, J. Nield, Birmingham; W. Woodhouse.

OWLS.—Foreign.—1, T. W. Townson, Bowden. 2, W. Lumb, Rochdale. 3, E. Horner. *he*, J. Baker; T. Charnley, Blackburn; R. Fulton. English.—1, R. Gardner. 2, R. Unsworth, Cheddale. 3, J. W. Townson. *he*, T. Charnley; R. Fulton; R. Unsworth (2); W. Woodhouse.

BARNS.—1, J. Baker; J. Thresh. 2, R. Fulton; H. Yardley. 3, E. Horner. *he*, R. Fulton; J. Stanley (2). Any colour.—Young.—1, Major Cryer. 2, J. H. Ivimy. 3, T. Charnley. *he*, W. Massey, Spalding.

TURBITS.—1, J. Baker. 2, R. Fulton. 3, R. White, Manchester. *he*, O. E. Crosswell; T. W. Eckersley, Stoneclough; R. Fulton; J. Gardner; E. Horner; W. Lumb; S. Lawson, Preston; A. & W. H. Silvester.

JACOBS.—1, 2 and 3, R. Fulton. *he*, J. Baker (2); W. Harvey; E. Horner; W. Woodhouse.

Long-faced.—1, J. Lister, Keighley. 2, C. Hopwood, Rochdale. 3, J. Crossland, jun. *he*, R. Brierley, Fishpool; T. Charnley; C. Hopwood. *Short-faced*.—1, W. Gamon, Chester. 2, E. Horner. 3, A. Bingham, Manchester; J. Stanley. *he*, R. Brierley; H. Cox, Smethwick, Birmingham; W.

L.Lis, Idle; J. Gardner, Preston; J. Lister, Dr. Rothwell, Rochdale; J. Wright, Manchester; H. Yardley, *Any colour*.—*Young*.—1, J. Crookland, 2, S. Adshard, *hc*, R. Brierley; W. Gannon; C. Hopwood; J. Stanley.

FANTAILS.—1, J. E. Spence, Broughty Ferry, 2, E. Horner, 3, Q. Blahm, Higher Broughton; R. Fulton, *hc*, Q. Blahm (2); W. Lumb.

DRAGONS.—1, J. Stanley, 2, W. J. W. Pass, Manchester, 3, J. Holland, *hc*, M. G. Dunn, Ryton, Durham; R. Fulton; J. Holland, Manchester; R. Unsworth (2); W. Smith, Walton-on-the-Hill, Liverpool, *Any other colour*.—1, 2, and 3, F. Graham, Birkenhead, *hc*, R. Fulton (2); W. H. Mitchell, Moseley; L. Unsworth; H. W. Webb, *Any colour*.—*Young*.—1, J. Holland, 2, W. H. Mitchell, *hc*, W. H. A. Miller; J. Royle, Manchester; W. Smith.

TRUMPETERS.—1 and 2, R. Fulton, 3, W. Harvey, *hc*, E. Horner. ANY OTHER VARIETY.—1, R. Fulton, 2, H. Yardley, 3, M. Ord, *hc*, O. E. Crosswell (Egyptian Turbentine); J. Gardner; E. Horner; W. Lamb; T. W. Towson; J. Watts.

SELLING CLASS.—1, E. Horner, 2, W. Brydon, *hc*, W. Harvey; W. Lamb; R. Minnitt; J. Nield; T. & W. Oddie.

ANY VARIETY.—1, E. Horner, 2, W. Harvey, *hc*, W. Markland, Dean, Bolton.

RABBITS (SINGLE).

LOP-EARED.—*Buck*.—1, W. Miller & S. Adams, Bradford, 2, T. Schofield, jun., Cheetham, Manchester, *hc*, L. Lamb, Rochdale, *Doc*.—1, J. Boyle, Blackburn, 2, J. Hume, York, 3, S. A. Garside, Ormskirk, *hc*, J. Irving, Blackburn; T. Schofield; W. Whippam, Alford, *c*, J. Armstrong, Leeds; T. Hargreaves, jun., Westhoughton, Bolton.

SILVER-GREY.—*Medal*, S. Ball, Bradford, 2, E. E. M. Royds, Rochdale, 3, Miss Mortimer, Rudhal, Ross, *hc*, J. H. Brand; T. Schofield, jun.; A. W. Whitehouse, Northampton, *hc*, J. Boyle; H. Hinks, Humberstone, Leicester; Miss Walton, Raynestall, *c*, C. G. Mason.

HIMALAYAN.—1 and *hc*, J. Butterworth, Rochdale, 2, Miss Walton, *hc*, S. Ball; H. C. Bowman, Higher Broughton; Legatt & Earwood, Thorne; T. & R. Mills, Accrington; C. G. Mason (2).

ANGORA.—1 and *hc*, H. Sweetman, Fulford, 2, S. Ball, 3, S. Buckley, Healey, *hc*, T. Garner; Miss Walton, *c*, T. Garner, D. Oldfield.

DUTCH.—1, T. Garner, 2 and *hc*, J. Irving, *hc*, J. Boyle; S. Butterworth; H. E. Gilbert, Rugby; A. Lund, York.

HEAVIEST.—1, M. Marsland, Goole, 2, E. E. M. Royds.

SELLING CLASS.—1, E. E. M. Royds, 2, S. Butterworth, Rochdale, *hc*, S. A. Clegg, Rochdale (Fawn Lops), *hc*, G. Feather, Keighley; E. E. M. Royds, *c*, B. Conderme, Littleborough.

The Judges were—for Poultry: Messrs. Teebay, Douglas, and Fieeling; for Pigeons: Messrs. Esquilant and Charlton; and for Rabbits: Mr. E. Hutton.

HOLMFIRTH POULTRY SHOW.

TWENTY years ago the district of Holmfirth provided more of the Birmingham winners in Gold and Silver-spangled Hamburgs, Polands, &c., than any other part of the country; but since then times have altered, some of the old fanciers being dead, though we were happy to meet some of the old hands at their annual competition, when the familiar names of Carter, Broadhead, Moody, Bamford, Battye, Haigh, Hepper, and Caldwell, and the doings of other days, were discussed over an entry of about 250 in all classes. Holmfirth is not one of the most accessible of places, but if the Committee would venture upon a really good schedule there is little doubt that theirs would become one of the most popular of shows, and again stir-up the latent and high-bred tastes of the inhabitants of the district.

As may be expected, the large varieties of poultry were not of high merit, if we except the cup pen of *Spanish*. Silver-spangled Hamburgs, as well as the Golden, both adult and young, were good, the young of the latter variety being very good. Game were of fair quality, and the Game Bantams were also very good.

PIGEONS were not numerous, but some were very good; and it is here was the most original type of Pigeons, shown under the name of Common Dovecot.

RABBITS.—The Belgian Hare in the mixed class was not good in fur, but size and shape were correct. The second was Angora, but the Lops were poor.

CATS.—The great feature of the Show was, however, the Cats, which had but one class, in which there were thirty-one entries; but double prizes were allowed. The first award was made to a Silver-Grey Tabby, the second to a Tortoiseshell-and-white, of which there were not less than twenty, and mostly good, and the third to a Red Tabby. The rest of the awards went, first to a Tortoiseshell-and-white, second to an Angora, and third to a Tortoiseshell-and-white.

DORINGS.—1, W. Buttery, Carr, Upperthong, 2, R. Stringer, *Chickens*.—1, J. Battye, Hillhouse.

SPANISH.—*Black*.—1 and 2, J. Battye, *Chickens*.—1 and 2, J. Battye.

COCHIN-CHINAS.—*Cinnamon and Buff*.—1, W. Wright, Holmfirth, 2, Moore and Cartwright, Holmfirth, *c*, J. Hey, Hunsley, *Chickens*.—1, W. Wright, 2, J. Hey.

COCHIN-CHINAS.—*Any other variety*.—*Chickens*.—1, W. Cartwright, 2, Moore and Cartwright, *hc*, T. Heywood; D. Clough, Holme.

FRAMMA POOTRAS.—1, J. Battye, 2, Moore & Cartwright, *Chickens*.—1, J. P. Floyd, Holmfirth.

HAMBURGERS.—*Golden-spangled*.—1, J. H. Booth, Bartholomew, Upperthong, 2, G. Haigh, Hough, *hc*, Moore & Cartwright (2); M. H. Broadhead, Holmfirth, *Chickens*.—1, M. H. Broadhead, 2, G. Haigh, *hc*, J. H. Booth, *c*, G. Hinchliff; J. Charlesworth (2).

HAMBURGERS.—*Silver-spangled*.—1 and 2, J. H. Booth, *Chickens*.—1, J. H. Booth, 2 and *hc*, J. P. Floyd.

HAMBURGERS.—*Golden-pencilled*.—1, M. H. Broadhead, 2, W. Bentley, Upperthong, *Chickens*.—1, W. Bentley, 2, Moore & Cartwright, *c*, J. A. Brook, Burnley.

HAMBURGERS.—*Silver-pencilled*.—2, J. Lee, Holmfirth.

HAMBURGERS.—*Black*.—1, Moore & Cartwright, 2 and *c*, W. Bentley, *Chickens*.—1 and 2, W. Bentley, 3, Moore & Cartwright.

POLANDS.—1 and 2, J. Battye.

ANY OTHER VARIETY.—1, R. Beighton, Clough, Thurstonland.

SELLING CLASS.—1, W. Bentley, 2, Moore & Cartwright, *c*, W. H. Peace, Shepley.

GAME.—*Any colour*.—*Cock*.—1, W. H. Peace, 2, J. Barber, Hollinbriag, *Any variety except Game*.—*Cock*.—1 and *hc*, Moore & Cartwright, 2, J. Hey, *c*, J. Charlesworth.

ANY BREED.—*Hen*.—1, J. Charlesworth, 2, W. Wright, *hc*, W. Cartwright, *hc*, R. Tolson & Co., Holmfirth; Moore & Cartwright, *c*, J. A. Brook; J. Hey; W. Goldwell.

GAME.—*Black-breasted and other Reds*.—1, J. A. Brook, 2, J. Brook; W. H. Peace, *Chickens*.—1, W. H. Peace, 2, J. A. Brook.

GAME.—*Duckings and any other variety*.—1, W. H. Peace, 2, J. Woodhead, Wooddale, *Chickens*.—1 and 2, J. A. Brook, *hc*, W. H. Peace; R. Beighton, Clough, Thurstonland.

BANTAMS.—*Black-breasted Game or any other Red*.—1 and *c*, R. Tolson & Co., J. E. H. Roberts, Scholes Moor, *hc*, R. Beighton, *Chickens*.—1 and 2, R. Tolson and Co., *hc*, R. Stringer.

BANTAMS.—*Duckling Game or any other variety*.—1, W. Goldwell, 2, J. Lee, *Chickens*.—1, W. Goldwell, 2, J. Lee.

BANTAMS.—*Any other variety*.—1, R. Stringer, 2, A. Thewlis.

DUCKS.—*White-Iglesbury*.—1, J. Hey, 2, J. P. Floyd, *hc*, T. Heywood; W. Bentley, *Rouen*.—1 and 2, G. H. Hirst, Meltham, *Any other variety*.—1, A. Thewlis, 2, J. Barber, *hc*, A. Thewlis; M. H. Bower, Holmfirth.

TURKEYS.—1 and 2, J. Hesp, Holmfirth.

GUINEA FOWLS.—1, J. Barber.

PIGEONS.

CARRIERS.—1, A. Thewlis, 2, W. Kaye, Shepley.

CROPPERS OR POUTERS.—1, W. Kaye, 2, A. Thewlis.

TUMBLERS.—1, A. Thewlis, 2, W. Wright, *hc*, A. Thewlis; E. Morton; FANTAILS.—1 and 2, A. Thewlis.

JACOBINS.—1, T. Hinchliff.

RABBS.—1, G. Beaumont, Meltham.

OWLS.—*English*.—1, E. H. Himes, Hunsley, 2, W. Kaye, *hc*, G. A. Thewlis.

DOVECOTE.—*Common*.—1, D. Clough, Holme, 2 and 3, G. H. Roberts, Scholes, *hc*, J. Wilson, Netherthong; G. H. Roberts.

ANY OTHER VARIETY.—1, W. Bentley, 2, W. Wright.

RABBITS.

SPANISH.—*Buck or Doc*.—1 and 2, W. Wright.

COMMON.—*Buck or Doc*.—1 and 3, Ramsden & Baxter, Underbank, 2, T. Blakey, Holmfirth, *hc*, G. E. Ratcliffe; E. Westerby, *hc*, H. Booth; W. Berry, Holmfirth (2), *c*, C. Goldwell; W. Berry.

CATS.—*Any variety*.—1, D. Ratcliffe, 2, J. J. Ellis, Boothhouse; W. H. Holmes, 3, J. Brook, Prize, T. Roberts, Holme, *hc*, E. Goldwell, Wasphit, *hc*, C. Whitely, Hinchliff; T. Brooks, Modd, *c*, J. Battye; J. J. Firth, Upperbridge; H. M. Cartwright, Ryecroft; W. Reifearn; T. Battye, Norridge; H. Mettrick, Underbank.

JUDGES.—Mr. W. Cannan, Bradford; Mr. E. Hutton, Pudsey.

RYHOPE POULTRY SHOW.

THIS took place on the 25th inst., and was in general a good Show, much better than before. The class for Malays proved quite a success, there being more entries in it than in any but the Selling class. First came a good pen, worthy of its position; the second excellent in style and quality although young.

DOAKINGS.—1, J. White, Wallaby, Northallerton, 2, H. Smith, Malton, York, *hc*, Lady A. Beresford-Peirse, Bedale, *Chickens*.—1, S. Stoddart, Millfield, 2, Lady A. Beresford-Peirse.

COCHINS.—1 and 2, G. H. Procter, Durham, *hc*, H. Tomlinson, Birmingham, *Chickens*.—1 and 2, G. H. Procter.

SPANISH.—1, Lady A. Beresford-Peirse, 2, R. Moore, East Rainton, *Chickens*.—1 and 2, C. Venables, Castle Eden, 3, R. Moore.

SPANISH.—1 and Cup, W. Jaggs, Blyth, 2, H. Smith, *Chickens*.—1, W. Jaggs, 2, Willocky & Carriss, Hexham.

POLISH.—1, A. Bugglass, Carville, Durham, *Chickens*.—1, A. Bugglass, MALAYS.—1, S. Elliott, Liskeard, 2, R. Hawkins, Seaham, *hc*, R. Hawkins; Rev. A. G. Brooke, Shrewsbury.

GAME.—*Any variety*.—1, W. Linsley, Morpeth, 2, D. Cheyne, Morpeth, *hc*, W. Ellis, Seaham, G. Holmes, Great Driffield.

GAME.—*Black-breasted and other Reds*.—1 and Cup, Miss M. J. Nelson, Cockshaw, Hexham, 2, H. Smith, *hc*, D. Nichol, Morpeth, *Chickens*.—1 and 2, G. Watson, Holhearside, *hc*, J. & I. Pounder; G. Watson.

GAME.—*Any other variety*.—1, G. Holmes, 2, J. Gibson, Stanhope, *hc*, A. Bugglass.

HAMBURGERS.—*Golden-spangled*.—1, R. Keenleyside, Aycliffe, Darlington, 2, W. Hinchliff, Helton Station, Penehouses, *c*, A. Bugglass, *Chickens*.—1, R. Keenleyside.

HAMBURGERS.—*Silver-spangled*.—2, G. Alderson, West Hartlepool, *Chickens*.—1, R. Keenleyside.

HAMBURGERS.—*Golden-pencilled*.—1, G. Holmes, 2, G. Alderson, *hc*, J. W. Gibb, Sunderland, *Chickens*.—1, J. G. Walker, Hendon, 2, R. Moore.

HAMBURGERS.—*Silver-pencilled*.—1, G. Holmes, 2, W. Whitfield, *Chickens*.—1, R. Keenleyside.

BANTAMS.—*Game, Black-breasted and other Reds*.—1 and Cup, G. Hall, Kendal, 2, R. Youll, Sunderland, *hc*, Miss M. J. Nelson; T. Clark, Sunderland (2), *c*, D. Hunter, Sunderland, *Chickens*.—1, G. Hall, 2, J. Earlow, Monkwearmouth, *hc*, J. Barlow; H. H. Thompson, Sunderland.

BANTAMS.—*Game, any other variety*.—1, Miss M. J. Nelson, 2, R. Youll, *Chickens*.—1, W. Rodgers, Sunderland, 2, D. Hunter.

BANTAMS.—*Any variety except Game*.—1, W. Laing, Sunderland, 2, H. A. Cave, Sunderland, *hc*, W. Whitfield, *Chickens*.—1, J. H. Cartwright, Welington.

DUCKS.—*Iglesbury*.—1, T. P. Carver, Langthorpe, Boroughbridge, 2, W. Laing, *Rouen*.—1, Miss M. J. Nelson, 2, W. Canney, Bishop Auckland, *hc*, S. Stoddart, Millfield, *Any other variety*.—1 and *hc*, Rev. J. G. Milner, Hamsterley, 2, W. Laing.

SELLING CLASS.—*Cock and Hen or Drake and Duck*.—1, J. N. Lawson, Ryhope, 2, C. Venables.

LOCAL CLASS.—*Barn-door Fowls*.—1, J. N. Lawson, 2, J. Weightman, Ryhope.

RABBIT.—1, J. Davidson, Ryhope.

The Judge was Mr. R. Teebay.

STOKESTOWN POULTRY SHOW, IRELAND.

THE following prizes were awarded at this Exhibition, held August 18th:—

DORINGS.—1, Lord Crofton, 2, P. Creighton, *Chickens*.—1, Mrs. Balfe, 2, Lord Crofton.

FRAMMA POOTRA.—1, Mrs. Traffie, 2 and Cup, Lord Crofton, *Chickens*.—1 and 3, Mrs. Traffie, 2, C. Graham.

COCHINS.—1, Mrs. Traffie (Black), 2, Lord Crofton, 3, Miss C. Chichester, *Chickens*.—1 and 2, Mrs. Traffie (Black), 3, Lord Crofton (White).

ANY VARIETY.—1 and 2, Mrs. Balfe, 3, parish and Homan, *hc*, Lord Crofton, Miss C. Chichester, J. Burke, P. Creighton, *Chickens*.—1, Miss Chichester, 2, Lord Crofton, 3, P. Creighton, *hc*, Miss Lloyd, J. S. Thompson, Miss Convery.

PHEASANTS.—3 and *hc*, J. Burke.

TURKEYS.—1, Lord Crofton, 2, Miss Chichester.

GESE.—1 and 2, Lord Crofton, 3, Miss C. Chichester.

Ducks.—1 and 3, Mrs. Taaffe. 2, Mrs. Balfe. *he*, Lord Crofton, Miss Chichester (2), Mrs. Lynch (2). *c*, Mrs. Balfe, P. Croighton, J. Burke, and K. E. Conrevere. *Drakes*.—1, Mrs. Taaffe. 2 and 3, Mrs. Balfe. *he*, Mrs. Barker, c, Miss Chichester (2); P. Croighton.
SMALL FARMERS' CLASS (Ducks).—1 and 2, P. Croighton.
SELLING CLASS.—1 and 3, Mrs. Taaffe. 2, P. Croighton. *che*, H. Owens (3).
JUDGE.—Mr. C. F. Staanton, Sandymount, Dublin.

CLITHEROE POULTRY SHOW.

This was held on the 21st inst. in a field about one mile from the station. The pens used were of a very primitive character; the management very bad, as birds sent alone were neither fed nor watered; and many of the Pigeons arriving a little late were not penned till after most of the awards were made, although there was ample time for that purpose before the judging commenced.

Single *Game* cocks were pretty good, the winners being Brown Reds of style and quality, but not good in colour. In the large varieties there was nothing of note, Mr. Aspden's Partridge *Cochins* being about the best. In *Hamburgs* Mr. Long won the majority of the prizes with some excellent birds. Messrs. Duckworth's Gold-spangled were also very good and well-shown. In single *Game Bantam* cocks the first was a Black Red of last year, the second being the Brown Red cockerel referred to in the notes on Rochdale. In the next class *Piles* were first and Black Reds second, all the class being birds of this year.

For *Turkeys* there was no competition, but some good Embden *Geese* were shown. In *Ducks* Mr. Walker took the first prize in each class, while White-throated Whistlers stood first in the next class.

In the class for chickens the first were good Spanish and second White *Cochins*, but we preferred pen 625, Brown Red *Game*, for second.

PIGEONS.—The birds were not numerous, nor can we congratulate the Judge upon his awards in the majority of the classes, as we considered only Tumblers (one pen), Owls (three pens), Turbits (two pens), and Dragoons, where there were twelve entries, and these latter well placed.

GAME.—*Cock*.—1, C. W. Brierley, Middleton. 2, J. Leeming, Bronghton, Preston. *Black and Brown Reds*.—1, C. W. Brierley. 2, R. Lonsdale, Worston, Clitheroe. *Any other variety*.—1, J. Greenhalgh, Hancoc, Accrington. 2, Huttall & Anderson, Earnoldswick.

DORRINGS.—1, J. Walker, Rochdale. 2, J. Robinson, Garstang.
COCHINS.—*Buff and Cinnamon*.—1, J. Walker. 2, T. Aspden, Church. *Any other variety*.—1, T. Aspden. 2, J. Walker.

SPANISH.—1, J. Leeming. 2, H. Wilkinson, Earby, Skipton.

BRAMAS.—1, H. Colbow, Clitheroe. 2, T. Ingburn, Whalley.

HAMBURGAS.—*Golden pencilled*.—1, J. Long, Bromley Common. 2, G. & J. Duckworth. *Silver pencilled*.—1, J. Long. 2, J. Robinson. *Golden-spangled*.

—1 and 2, G. & J. Duckworth, Church. *Silver-spangled*.—1, J. Robinson. *Black*.

—1, J. Long. 2, J. Robinson.

POLANDS.—1, J. Robinson. 2, T. Dean.

SELLING CLASS.—1, H. Wilkinson, Earby, Skipton. 2, T. Aspden, Church, Accrington. *Cochins*.

GAME BANTAMS.—1 and 2, W. F. Entwistle, Westfield, Bradford. *Cock*.—1, W. F. Addie, Fulwood. 2, W. F. Entwistle.

GEES.—1, J. Walker. 2, Capt. L. Anyon, Whittle-le-Woods.

DUCKS.—*Aylesbury*.—1 and 2, J. Walker. *Rouen*.—1, J. Walker. 2, S. H. Stott, Preston. *Any other variety*.—1 and 2, H. B. Smith.

ANY BREED.—*Chickens*.—1 and 2, H. Wilkinson.

PIGEONS.

CARRIERS.—1, W. Sefton, Blackburn. 2, J. Stanley, Blackburn.

TUMBLERS.—1, T. & W. Oddie, Brierfield, Burnley.

BARBS.—1, J. Stanley. 2, T. Charley, Salford, Blackburn.

OWLS.—1, T. & W. Oddie. 2, J. Richmond, Oswaldtwistle.

POUTERS OR CROPPERS.—1, J. Richmond. 2, T. Charley.

FANTAILS.—1, J. F. Lovelace, Newark. 2, T. Charley.

TURBITS.—1 and 2, J. B. Bowden, Blackburn.

DRAGOONS.—1, J. Stanley. 2, W. Sefton.

ANTWERPS.—1 and 2, J. Stanley.

NUNS.—1, J. B. Bowden. 2, T. Marples, Blackburn.

MAGPIES.—1 and 2, J. B. Bowden.

ANY OTHER VARIETY.—1, T. Marples (Red Jacobins). 2, W. Sefton.

The Judge was Mr. R. Teebay.

CHEPSTOW POULTRY SHOW.

This Show was held in the Castle grounds, which are all the most fastidious amateurs could desire for the purposes of any similar meeting, the views being of a most impressive character, whilst the interior is highly suggestive of the march of progress now attained, whether of attack or defence, over those existent when the massive walls of the Castle were originally erected. The day was indeed a lovely one for any kind of out-of-doors pursuit, but, as though misfortunes were always twin-born, the Committee, who strove to the utmost to please and satisfy all parties, met with a succession of disappointments, sufficient to damp the enthusiasm of the most persevering. Still they bravely strove on, and no one could for a moment but approve of their self-denial and perseverance. The greatest possible drawback arose from the fact that the exhibition pens (though the party had arrived to put them up) never came to hand, consequently all the fowls had to be shown in their respective travelling baskets, and the Pigeons in pens such as could be most speedily put together at the last moment. Again, the tent, arranged for by contract, arrived safely and in due course, but after the erection of the framework it was found at the most anxious moment that the contractor had by "mistake, brought the

canvas for the end of a very large tent," consequently a second serious pull-back ensued, causing much uncalculated labour and vexation. Still, by dint of unbroken sheer hard labour, the Committee pulled through; and although travelling baskets (open and closed) formed the only exhibition pens, the Show when finished in so picturesque a spot was anything but a bad one; neither was it without considerable attraction, and the attendance was satisfactory. Under these manifold drawbacks, and there being no printed catalogue, we cannot enter into details, except the admission that the majority of the poultry shown were very superior, though the judging was of necessity carried out under circumstances of great difficulty.

The Judge was Mr. Edward Hewitt, of Sparkbrook, near Birmingham.

POCKLINGTON PIGEON AND CAGE BIRD SHOW.

This was held on the 20th inst. *Pigeons* were few and inferior to what we have seen in previous years. *Rabbits* also were not numerous, but Mr. Myton, who obtained quite the lion's share of prizes, showed some good pens. The *Cage Bird* classes had some good entries, and included some capital birds.

PIGEONS.

DRAGOONS.—1, R. W. Richardson, Beverley. 2, C. Auton, York.

ANTWERPS.—1, C. Auton.

POUTERS OR CROPPERS.—1, R. W. Richardson. 2, Mrs. Jackson, Pocklington.

TUMBLERS.—1, C. Auton.

BARBS.—1 and *he*, R. W. Richardson.

JACOBINS.—1, R. G. Sanders, Leven. 2, C. Auton.

FANTAILS.—1, C. Auton, York. 2, T. S. Stephenson, Beverley. c, R. W. Richardson.

TRUMPETERS.—1, R. G. Sanders.

TURBITS.—1, R. W. Richardson. 2, C. Auton.

CARRIERS.—1, C. Auton.

ANY OTHER VARIETY.—1, C. H. Blanchard. 2, C. Auton.

RABBITS.

LOP-EARED.—*Duck*.—1 and 2, T. Myton, York. *Doe*.—1 and 2, T. Myton.

HIMALAYAN.—1, T. Myton. 2, W. Swetnam, Palford.

SILVER-GREYS.—1, T. Myton.

ANY OTHER VARIETY.—1, T. Myton. 2, Miss Cundale, Pocklington.

SELLING CLASS.—1, T. Myton. 2, Miss Jefferson, Pocklington.

CAGE BIRDS.

RELIGIAN.—1, W. Forth, Pocklington. 2, W. G. Wright, Beverley. *Half-bred Belgian*.—1, — Sykes, Beverley. 2, — Downs, Beverley.

NORWICH.—*Clear or Ticked Yellow*.—1, C. Burton, York. 2, W. Forth. *Clear or Ticked Bay*.—1 and 2, W. Forth.

YORKSHIRE.—*Clear Yellow or Bay*.—1, M. Fairburn, Pocklington. 2, H. Curtis, Pocklington.

NORWICH OR YORKSHIRE.—*Even-marked*.—1, Mrs. Downs, Beverley. 2, C. Burton, York. *Ticked or Uneven-marked*.—1, W. Forth. 2, J. Calvert, York.

CRESTED.—*Any variety*.—1, Petty & Cuss, York. 2, C. Burton.

LIZARDS.—*Gold or Silver-spangled*.—1, W. Forth.

JOQUE.—*Buff or Cinnamon*.—1, W. Forth.

CANARIES.—*Young.*—*Any variety*.—1, Mrs. Downs. 2, T. Neill, Beverley.

MICE.—*Parroted Goldfinch and Canary*.—2, W. Lister, Malton. *Dark Goldfinch and Canary*.—1, J. Boulton, Pocklington. 2, W. Lister.

GOLDFINCH.—1, J. Higglet, Pocklington. 2, J. Calvert.

LINNET.—1, W. Lister. 2, G. Eyre, Pocklington.

BULLFINCH.—1, J. Whitehead, York. 2, W. Lister.

THRUSH.—1, W. Forth. 2, J. Boulton.

PARROT OR PARAKEET.—1, T. Grant, Pocklington. 2, J. Calvert.

ANY OTHER VARIETY.—1, Hon. W. Dundas, Waplington (Waxbill). 2, Mrs. Calvert, Pocklington (Green Cardinal). c, J. Calvert (Golden Oriole).

CAGE OF SIX CANARIES, IN VARIETY.—1, W. Forth. 2, Petty & Cuss.

CAGE OF FOREIGN BIRDS.—Extra, W. Lister.

JUDGE.—Mr. Morton, Hull.

BIRMINGHAM SUMMER POULTRY AND PIGEON SHOW.—At this, which the advertisement states will be held in the last week of September, thirty-three extra prizes are offered for poultry, and the same number for Pigeons. In addition, there are three liberal prizes in each class. Altogether the prizes amount to £400. As the Show days include those of the Michaelmas Fair there will most probably be a large attendance, and anyone wishing to sell or purchase birds will act judiciously by being there.

MALTON PIGEON SHOW.

(From a Correspondent.)

The above Show was held on the 11th inst. in connection with the Floral Society. The Secretary and Committee deserve great praise for the manner in which they managed the Show. Next year we hope they will publish a catalogue of entries, arrange their schedule on the single-bird system, and make a few additional classes. In *Tumblers*, any variety, first were a pair of good Almonds, second Black Kites; a pair of good short Reds received a high commendation. Of *Pouters* both winners were capital Whites, good in feather and limb. *Jacobins* were a large class, and both prizes fell to decent Reds. In *Fantails* the winners were excellent. *Carriers* were also a good class. *Trumpeters* contained some very fair birds; both the winners were of the old type. *Spots* were wretched, and we are surprised that the Committee make a class for them and ignore such varieties as Antwerps, English Owls, Dragoons, and many other varieties, as any of these would bring thrice the number of entries that *Spots* do. *Turbits* were a large class, and contained some really good Filled birds, both Shells and Peaks; the winners were first-class headed birds, and able to take their own part in good company. *Nuns*, with the exception of the

first birds, were very ragged in moult, and many of them looked frightful. *Barbs* were a good class, the first-prize Reds being as promising as anything we have seen for some years. A capital pair of *Yellows*, very evenly matched, were second. This class contained some good *Blacks*. The *Auy* variety class was a show of itself, consisting of upwards of twenty-eight pens, including *Owls*, *Dragoons*, *Isabels*, *Archangels*, *Spangled* and *Plain Ice*, *Swallows*, *Antwerps*, *Magpies* three colours, and a pair of small *Runts*. The first-prize went to *Spangled*, and the second to a good pair of *Owls*, one of which had an extraordinary gullet. The *Jndgea* should have had about six extra prizes to give in this class, as many of the birds not mentioned in the prize list were good enough to win anywhere. The awards were published last week.

POUTERS, ANY OTHER COLOUR OR MARKINGS.

On reading Mr. M. Stuart's article in one of your contemporaries, my first impulse was, that as it showed such a want of the proper spirit in which this discussion should be carried on, that I would write no more on the subject; but, on second thoughts, I have to ask you to give me space for a few short remarks. It is an article that will neither help his views nor damage those of his opponents. It wanders from the point; it assumes an insolent tone towards those who differ from him; it is boastful; it makes reckless assertions; it contradicts itself; in a word, it shows an utter want of good feeling, and a degree of ignorance of the subject on which it professes to decide. These may seem heavy charges, but I think they can be easily made good.

In the first place he starts with that unhappy word "mis-marked," though he knows very well that no one advocates classes for these birds. He then says that "every good Pouter fancier" has been convinced by "Mr. Wallace's clear and forcible statements," the meaning of which can only be that those who cannot agree with what Mr. Wallace says are no fanciers, yet he then admits that the off-coloured birds might have a class, which is just about all we are striving for. He then states that he knows more than our "first-class Pouter fanciers" that gave them up because they could not breed them to their mind. What proof is there that those who gave up in disgust were "first-class fanciers"? Is it that they took up a breed and failed to improve it or to keep it up? There is no other proof given, but apparently it is ample in Mr. Stuart's opinion. But he immediately adds, after saying that Pouters have been ruined beyond the energies of "first-class fanciers" to redeem, that the birds of the present day are far superior to the birds of the old school. Here is contradiction and ignorance besides, for I remember the birds of the old school, and a few other fanciers do so also, and I maintain that in all the best points of a Pouter they could beat us. We could, I daresay, beat them by the tape line, but in nothing else. They bred for elegance of style, and managed colour and marking better than is now done. If Mr. Stuart had said that the birds of the present day were the best he had seen, there could have been nothing to say; but he makes them out to be the best and the worst at the same time. His misuse of the word "mongrel" is quite in keeping. He also boasts that "we can and will do without *Mealies*, *Chequers*, &c." Time only will show; but a prudent man, in attempting to do what has never before been done, will delay the boasting until he has done it, and then, if he is "to boasting inclined," one might forgive him. He also boasts of a loft where there is only one chequer, and every bird well marked. It may be so, a little judicious "Pie selection," which he confessed to at one time would do this for any loft; but a loft may boast of this and yet be a poor one after all. Colour and marking do not make a Pouter, they only finish one. This wonderful loft adds also to the surprise and regret one feels on hearing of first-class fanciers leaving off "in disgust." Could they not have got what they so sorely required from such a fountain of pure blood? or were they fond of change, which a certain class of people are said to be, and perhaps had a mind to try their great powers on, perhaps flying *Antwerps*? It is to be hoped they will succeed better in their new sphere, as they are not missed in the one they left. Mr. Stuart assures us that "he is in downright earnest." Are we to infer from this that he is not usually so in what he writes? If not, why so strongly assert it in the present instance? His attack on Mr. Haie as a breeder I only refer to as a further proof of ignorance, and of a total disregard for the feelings of others.

Before closing I would feel obliged by some of the members of the North British Columbarian Society explaining a thing I cannot understand. At their last show they had a class for Short-faced Tumblers "any other colour or marking," comprising *Kites*, *Agates*, *Whole-feathers*, *Splashes*, &c. By this time they had become enlightened on the Pouter question, and there was no class for off-coloured birds. Now, as Pouters of this description serve the breeder precisely in the same way as the "any other colour" Short-faces do, how were the latter not excluded also? Mr. Stuart might have told the Almond breeders

that they could and ought to breed their Almonds from Almonds, and that "no good fancier" would have anything to do with such trash. This, at least, would have had the merit of consistency. As I said before, I would be happy to hear any of the members explain this (but not in Mr. Stuart's style), as it has puzzled not a few. I am sorry the discussion has taken this disagreeable turn, when it might have gone on pleasantly and perhaps usefully.—GEORGE URE, *Dundee*.

P.S.—To show that Mr. Stuart does a thing thoroughly when about it (his change of opinion on this matter), I give some extracts from a letter of his that appeared in *THE JOURNAL OF HORTICULTURE* in March, 1868, during the controversy the Scotch fanciers had with Mr. Volckman on the same subject. He says, "Mr. Volckman tells us that by the use of *Mealies*, *Chequers*, and *Splashes* we have destroyed the colours and markings in our Pouters, and that for the present they must be 'vigorously discarded.' On the other hand, Mr. Tegetmeier says, 'The Pouter fancier has a slavish fear of breeding away from some one particular colour.' Now this is an awkward position for a young fancier to be placed in. Whom is he to believe? and what is he to do? My advice would be, as we have no printed guide, to adopt neither theory, but use *Mealies*, *Chequers*, and *Splashes* in their proper places, and he will find to his own satisfaction, as I have done, that practical experience is safer than theory." Very good.

Again he says, "As far as my own experience goes, and from observation in the lofts of our best Scotch breeders, I believe that the *Chequers* bred from *Blacks* should be crossed with *Blacks* only, and by following this method a *Chequered Pouter* will be quite as good for stock purposes as a *Black*, and the produce will be 'Blacks of raven brilliancy.'" Very good also.

He next says, "I approve of occasionally crossing the *White Pouter* with the *Blue*. The *White Pouter* being constitutionally a weak bird, the produce is improved in strength by this cross, and the *Blues* gain in colour, as the *White Pouter* helps to clean out the foul feathers so often found in the limbs, &c., of the *Blue-pied Pouters*. It was from a cross of this description that I produced the progenitors of the *White* and *Blue Pouters* that stood first at Glasgow for more than one season." Very good still.

But Mr. Stuart has now veered round as far as it is possible to go. Of course change of opinion is an everyday affair, but when one does it so decidedly as Mr. Stuart has done, and not content with this, but derides those who will not follow him, and parades his views in public, fanciers are surely entitled to look for a good reason for such a change. Has he given one? I say he has completely failed in his attempt; in fact, it is all the other way, if we are to be guided by his experience, the only sure guide in these matters, so that his desertion from the good cause must arise from something foreign to the fancy, as facts and theory are all against him.—G. U.

MOTTLES.

THERE are numerous birds among the varieties of Pigeons that are called Mottles, and yet not one in ten approaches the standard by which alone birds answering to that name should be judged. The Mottles of one person are the *Splashes* of another, or the *Speckles* of some other. So it turns out that B is dissatisfied with the birds C sends him, or D thinks E does not know what a Mottle is because E rejects *Splashes*, &c. There need be no difficulty about all this, for it has long been settled as to what a Mottle should be. A Speckle is a spot of one colour upon another. For instance, upon a sheet of paper you drop some ink; it spots or specks it, and if you shake out a number of drops the paper becomes speckled all over. And so it is with a class of Pigeons; the colour of the bird (black, red, or yellow, &c.) is spotted all over with specks of white, whence comes the name of *Speckles*, or *Speckled Tumblers*, &c.

A splash is a different thing. A boy will stand in the gutter, and splash mud over you as you walk by. In this instance a large quantity of mud falls upon one or two places (the little spots count for nothing here), and your white suit is said to be splashed. Therefore among birds, a black (red, blue, &c.) one with large spots of white occurring here and there on its plumage is called a *Splash*; thus two or three white feathers will give a bird a splashed tail, or when the white extends across the back it is a splashed back, as some call it a handkerchief back.

A Mottle bears a definite meaning with it. It has not come by chance, such as a speck or splash; on the contrary, it denotes that something has been carefully done. There is no sense in saying I am mottled with mud, splashed is the word for that; but when you look at a work of art, you say, How carefully that mottling is done! With birds a Mottle means a black (red, blue, yellow, &c.) bird with a rose consisting of about twenty-four, rather less than more, white feathers upon the shoulder of each wing. If these feathers are arranged in a perfect circle, with a black feather alternating between every two of the white ones, it gives a brilliancy and beauty to the bird that will set any

fancier wild. Some fanciers allow a few white feathers scattered about the head and neck of the bird, but methinks it is because they cannot always attain the highest perfection in breeding Mottles, and are therefore inclined to be liberally lax in their ideas in order to accommodate the name to the speckled birds, and not the birds to the name. That is not true fancying; it is but a make-believe, and is always accompanied by an unpleasant sensation of conscience that is very disagreeable to have about one when one's ideas are formed to a high standard. Eaton, in his edition of plates, gives a beautiful illustration of a Mottle, and the only objection to it is the speckling of the back of the neck; but then Eaton was not so strict in his ideas of the meaning of the word as he ought to have been, for he gives us also a plate of a Mottled Trumpeter, and by comparing the pictures it is conclusively shown he attached different degrees of latitude to the word as used in speaking of Mottled Tumblers or Speckled Trumpeters.

What makes a mottled bird valuable is the purity of the mottling and the rareness with which such mottling is reached. It is easy to breed speckled birds; it is hard to breed birds mottled on the wings, and moderately speckled about the head; but hardest of all is it to breed that pure white mottling on the wings alone. It takes time and the most careful selection to produce anything of moment among Pigeons, and the most experienced fanciers have not yet succeeded in fixing those few white feathers indelibly upon the shoulders of the birds, but the time will come when it will be done; meantime, do not let us be dragging down a high standard and prostituting our energies by resting content to call Splashes, Speckles, and even Griggles by the name of Mottles.

Mottled Tumblers are exceedingly scarce, whether Short or Long-faced. There is but one Short-faced nearly approaching perfection in colouring in the circle of our acquaintance; it is a beautiful Black, in the possession of Mr. M—, a fancier of refined taste and liberal ideas, residing in our city. It was considered cheap at \$50, and is now unpriced. The Long-faced are sometimes called Rose-winged, and are occasionally well bred, but in most instances they deserve the name of White-winged or Splashes, more truly than Rose-winged; many of these last are fine tumbling birds, and some of elegant beauty. Mottled Trumpeters are far from being fit exemplars of the word mottle. It would be better to call them Speckled but for the fact that, yielding to the invisible influence of the word mottle, the fanciers are gradually excluding more and more of the white from the standard of markings for the Trumpeters, and the time is not far distant when the mottling of the perfect bird will be ruled by a standard for colours common to both varieties.—Dr. W. P. M.—(*American Poultry Bulletin*.)

[Dr. Morgan gives a good guide here to the young fancier as to what is a properly-mottled Tumbler, except that some of the English admirers of the bird prefer a slight mottling on the back. It is, however, fair to say that all do not agree to the handkerchief back. Eaton in his book gives an admirable portrait of this bird, the best yet produced, and rightly gives no white on the neck; the picture is indeed the gem of the book. A properly-mottled Short-faced Tumbler is the most beautiful of all Tumblers; in my opinion to be preferred even to the Almond, and has this advantage, that while non-fanciers never admire the Almond at a show, everyone, even the most ignorant, delights in the Mottle. We sadly need more of these exquisite birds. It would be well if fanciers went in more vigorously for breeding this class. I would give something to see a good exhibition of Black, Red, and Yellow Mottles. Alas! we only read of them, but never or scarcely ever see them.—WILTSHIRE RECTOR.]

TRAINING THE EARS OF PET RABBITS.

I cut from a piece of leather a strip in shape like this illustration (fig. 59); the places x, x, are cut so as to act like a flap.



Fig. 59.

This must be made of such size as will fit the Rabbit's head. Put the ears through from the under side, and draw the two ends under the throat, and tie them there. These "flaps" press the ear down, and after being kept on a week usually effect a cure. In Rabbits half-grown or over it will take a longer time. The best age to apply it is immediately they are weaned. The leather should be the thickness of ordinary boot-leather.—A. M. HALSTED.—(*Philadelphia Fanciers' Journal*.)

JUDGING BY POINTS.

This subject has no doubt been the means of giving a great deal of labour to some of our friends, particularly in America, and amongst others has caused much interest. I do not think

it is a matter requiring much debate, because it seems to me almost impossible to judge by measure, and, without measuring, all the points cannot be correctly ascertained. Still, I allow that specimens in some departments of the fancy may be judged in this manner. I know something of Canaries, Belgians particularly, and believe that neither they nor Pouter Pigeons can be properly judged in this way. It is only where a close tie is come upon that I think the measure should be applied at all.

There is enveloping the Belgian Canary in particular, and the Pouter Pigeon, a peculiar grace—an elegance which cannot be put on paper either in language or figures, and which only a good judge will at once detect; and as that grace is developed differently in different individuals, and in so many various ways, no printed standard would result in giving satisfaction either to judge or exhibitor. I have instanced only two birds, but there are many others.

The great want, in my opinion, is not a tabulated scale of points for the subject of our various pastimes, but really good judges.

As points seem at present to be fashionable in many matters, allow me to give you my points of a good judge—

True fancy knowledge	35
Good eye, with or without spectacles	20
Manly independence	35
Poetics	10

100

N.B.—Weight or age no object.

It seems to me that we would sooner gain our end if the debate—if debate at all—turned upon and settled the points of judges. That being settled, we may then look after testimonials.—JAMES HUIE.

BEE-KEEPING FOR 1874.

SINCE my letter to the Journal about my visit to Mr. Pettigrew's apiary in March last, I have had ample opportunities of trying what I was then shown, and I have succeeded a great deal better than I expected to do.

I commenced bee-keeping in June last year with a very poor first swarm that I bought of a person who had found it on a brookside, and had it put into a common round-topped hive; about a week after I bought another hive, and sent it to a neighbour's to put a swarm in, and he put a small second swarm in it on July 1st. Both of the swarms were so small that the first one only half filled its hive with combs, and the second one did not fill its hive more than a quarter full; however, I fed them until they gave over taking any more food, and wrapped hay-bands round the hives to keep them warm; but I never expected the second one to live through the winter, it was so small; but it did, and bred a good stock of bees afterwards. I knew of about forty-five hives of bees within two miles round here before winter, and in March this year there were three lots out of the forty-five living, and two of them were mine, so it shows what a little attention will do. I obtained one of Mr. Pettigrew's bee books, and I agreed with what he said, that large hives were more likely to do well than the common small ones, so I purchased an 18-inch stock hive in March. I had then two common hives only partly filled with combs, and one good 18-inch hive to start with this year.

The weather here up to the commencement of June was as bad as it could be for bees. I examined them now and then to see how they were getting on, but they increased in numbers very slowly. I had a pair of gloves and a bee dress ready, so that I could swarm my bees as soon as they were ready without the risk of being stung, and they have paid for themselves once or twice over already. When examining a hive they are not wanted, but when swarming, &c., it is better for a beginner to have something on. I had never seen a hive artificially swarmed, and the first one I had to do I was afraid I should make a mess of it, but I was determined to try and do my best, for I knew if I did not I should lose very nearly all my bees, there were so many hives with combs in waiting for swarms to come to them.

It was the 3rd of July before I had a hive ready for swarming, and about 7 p.m. I smoked the hive, turned it up, and placed an empty hive on the top, wrapped a cloth round the junction, drummed the bottom hive four minutes, then took the top hive off, looked for the queen, and shook the bees out into an 18-inch hive that I had ready for them, put the swarm on the old stand and the old hive about 2 feet off, and they were all right. Three days afterwards I treated the 18-inch hive in the same way, and put the swarm into another 18-inch hive; three days after that the other was ready, and I treated it also in the same way, and put it into a 16-inch hive. The swarms all did first-rate while the weather continued good.

I wanted to have a better class of hives in place of the common ones, so on the twenty-first day after swarming the first common hive I drove all the bees out into a 16-inch hive, and took the honey, 15 lbs., on the third day after a second swarm came out of the other common hive, and settled on to an old stump in the

garden hedge. I was away at work, so a friend of mine covered them over until I got home, when I put them into an empty hive, and in the evening I joined them to my first swarm in the 18-inch hive. This I managed the same evening without any fighting, it being three weeks since I swarmed the large hive. I drove all the bees into a 16-inch hive, and took the honey, 24 lbs. Three days afterwards I took the other common hive, joined the bees to the first turnout, and secured 9 lbs. more honey. I had now my bees all in good "Pettigrew" hives. If it had been a good May I should have done better still. This is but a poor locality, so I consider that I have done very fairly for a beginner. I sold all the honey I had to spare at 1s. 6d. per pound. Twelve months since I was as frightened of bees as any one. If all beginners, and I think there are plenty, will only try the same methods that I have done, and follow Mr. Pettigrew's instructions in the Journal, they will succeed a great deal better than they expect.

The weather here has been very unfavourable for bees since about July 24th. My swarms were gaining weight rapidly; one gained 9 lbs. weight in four days, and then the weather changed, and they have lost 3 or 4 lbs. since instead of gaining, and the others have lost more still. The turnouts I am feeding well, so that they may make as many combs as possible before winter comes on. Artificial swarming is a good plan, especially for any one who works any distance from home.—P. RAINFORD, *Wigan*.

NADIRING.

Your correspondent "E. H. R.," at page 111, draws attention to the value of nadirs "in good years." Of this there can be no question; but then at such times—i.e., when honey is very plentiful, bees will build comb and store honey anywhere. They have been known to do it outside the hives, even below the floorboard. I have known them do it between the general covering of the hive and a super, thus building within and without the super at the same moment. Still I cannot say in ordinary years I have found the nadir principle a good one; certainly in every way a well-managed super is preferable. The objection against the nadir, arising from the difficulty of the bees in finding their way out in the upward direction, has perhaps created a prejudice against it unnecessarily, because a few narrow slits in the top board, sufficient to allow the bees a free passage up the sides of the nadir into the main hive above, would at once obviate this difficulty if these slits, say half an inch wide and 2 or 3 inches long, were made in the middle of each side. There are other objections to the nadir which make it awkward of management, arising from the necessity of elevating the hive over it, which in my own case in my bee house and elsewhere would be very troublesome. The quasi-nadir, or rather super placed nadirwise *pro tem*, is all I can conveniently use. It is used simply to induce the bees to commence building combs earlier than they sometimes will do in a super proper. I also have put a large empty hive below, in order that it may be treated as a stock hive another year.—B. & W.

OUR LETTER BOX.

PIRATING OUR ILLUSTRATIONS.—We have received the following—"Gentlemen,—Referring to the editorial footnote on page 89 of your JOURNAL OF HORTICULTURE, it is proper that I should say that the illustration of the Fantail Pigeon which appeared in our July issue was purchased from the proprietor of the 'Rural New-Yorker,' and the writer had no knowledge that the same had ever appeared in your paper. It seems proper that I should make this explanation.—A. B. ESTES, *Editor of Pet-Stock Bulletin, New York*."

[The "Rural New-Yorker" systematically copies our illustrations without acknowledgment.]

HEREFORD POULTRY SHOW.—Mr. Feast writes to us that he seldom exhibits White Cochins, and that the bird which died went to Hereford direct from his yard at Swausea, and that he has too many good birds in his hundred pens to require them to be overworked. He thinks our correspondent's observations were malicious and libellous, but we are sure that they were only intended for the safety and better chance of success of valuable birds.

PRIZE GOLDEN POLISH HEN AT EARLSHEATON.—"In your report of the Earlsheaton Show you mention a Golden Poland hen whose crest had the appearance of having been operated on by a barber. I have seen the hen in question two or three times during the summer, and although she certainly has that look, yet I do not think she has been trimmed. She has, I believe, chafed it away with rubbing it against exhibition pens. The hen seems to be of a restless disposition, and I have no doubt that that is the cause of her present appearance. She is a fine one, has a good crest, and should not be shown until she has moulted.—G. W. BOOTHBY."

CHEAP RABBITRY.—"On page 65 of No. 694 I see you have taken an article, headed 'Cheap Rabbitry,' from the *Chautauqua Farmer*, and credited it to Dr. Pond of Cassadaga, N.Y. If you will refer to 'Pet-Stock, Pigeon, and Poultry Bulletin' for March, 1874, page 225, you will find the article entire as it originally appeared over my own signature.—A. M. HALSTED, *Pet-Stock Bulletin, New York*."

LOUGHAN BEES (E.S.).—We have had these bees for many years, either pure or hybrid, but we cannot say we find them less irascible than the common English. In point of temper we find "much of a muchness" between them. They are pretty bees to look at, good honey-gatherers, famous breeders, and the fashion, which is saying a great deal for them. Messrs. Neighbour and Sons, Holborn, supply hives of them. The best time to commence keeping bees is the spring.

SMALL BLACK BEES (Midland Counties Bee-keeper).—The bees enclosed in your envelope did not appear to differ from ordinary bees, but they changed so rapidly after death that it is difficult to report upon them. We infer that your bees are Italians, because you ask if they are "the offspring of a pure English queen;" but if not, "small black bees" are referred to in Bevan on the "Honey Bee," and have been noticed by other writers. They occur at times in larger numbers than at others, but so far as we recollect have never been satisfactorily accounted for.

PREVENTING SWARMING (P. R.).—Placing an eke under a hive after it has swarmed once will not prevent it from sending off a second swarm. Driving all the bees out of a hive when the young queens are piping, cutting out all its royal cells, then casting back the bees, will prevent swarming. Throwing back second swarms a few hours after they have issued will, in almost all cases, prevent their coming again.

SAVING BEES (D. B., Enfield).—We gather from your letter that your hive to be plundered, and that to which you would join your bees to be saved, are identical in shape and size; also the hive beneath the first, which is empty, save a little comb. Nothing can be easier under the circumstances. First smoke, then drive the bees out of the hive which is to be plundered into the last-named hive which has a little comb. Next drive the bees in the same manner out of the hive which you intend to keep along with the other bees, or you may drive them separately into different hives. In either case knock them out together in front of the hive which is to be kept. There will be no fighting. You will find full instructions for driving in "Bee-keeping for the Many," which can be had from this office for 5d., postage paid.

METEOROLOGICAL OBSERVATIONS,

CAMDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W.; Altitude 111 feet.

DATE.		9 A.M.					IN THE DAY.						Rain.
1871.	Aug.	Barometer at 32° and Sea Level.	Hygrometer.		Direction of Wind.	Temp. of Soil at 1 foot.	Shade Temperature.		Radiation Temperature		In.		
			Dry.	Wet.			Max.	Min.	In sun.	On grass			
		Inches.	deg.	deg.	N.	deg.	deg.	deg.	deg.	deg.	In.		
We. 19		30.381	68.3	64.6	N.	61.0	77.1	59.8	97.0	54.5	—		
Th. 20		30.400	68.6	64.0	W.	61.9	82.7	54.9	121.3	52.6	—		
Fri. 21		30.445	63.7	61.0	N.	63.2	76.6	57.6	123.0	55.4	—		
Sat. 22		30.413	62.4	57.1	N.E.	61.8	74.9	46.9	125.0	43.3	—		
Sun. 23		30.344	64.0	65.4	E.	61.6	84.0	45.3	117.0	46.5	—		
Mo. 24		30.344	57.3	52.9	N.	63.2	73.7	47.0	116.3	41.3	0.018		
Tu. 25		30.076	64.2	58.6	W.	62.4	76.7	55.0	113.8	54.1	—		
Means		30.349	61.5	60.1		62.0	78.0	52.5	116.9	50.4	0.018		

REMARKS.

19th.—Fine day, much warmer in the evening.

20th.—Very bright and fine all day and night.

21st.—Rather dull early, but a very pleasant day; quite as bright, but cooler than yesterday.

22nd.—A most beautiful day, cool evening, and starlit night.

23rd.—Fine morning and afternoon, rather cloudy and stormlike between 6 and 7 P.M., but a fine night.

24th.—A very pleasant day, but again stormlike about 7 P.M.

25th.—A little rain in the early morning, and rather thick at 9 A.M.; bright before 11 A.M., and continuing so till 3 P.M.; but then clouding over, and looking stormlike, with puffs of wind at times; fine night.

A week of most agreeable weather, bright and fine, and though the temperature has been about 3° in excess of that of last week, it has rarely been oppressive or felt stormlike, though it has frequently looked so. Heavy dews, but no rain, except on morning of 25th.—G. J. SYMONS.

COVENT GARDEN MARKET.—AUGUST 26.

VERY little alteration to be noticed here. Peaches and Nectarines are coming in freely from open walls; Hothouse Grapes more than sufficient for the demand.

FRUIT.

	s.	d.	s.	d.		s.	d.	s.	d.
Apples.....	1	0	1	6	Malberries.....	½ lb.	1	0	10 0
Alicia.....	doz.	2	0	4	Nectarines.....	doz.	3	0	8 0
Cherries.....	½ lb.	0	0	0	Oranges.....	½ 100	12	0	24 0
Chestnuts.....	bushel	0	0	0	Peaches.....	doz.	4	0	12 0
Currents.....	½ sieve	4	0	0	Pears, kitchen.....	doz.	0	0	0 0
Black.....	do.	5	0	0	dessert.....	doz.	2	0	3 0
Figs.....	doz.	3	0	1	Pine Apples.....	lb.	2	0	6 0
Filberts.....	lb.	1	0	1	Plums.....	½ sieve	3	0	4 0
Cobs.....	lb.	1	0	6	Quinces.....	doz.	0	0	0 0
Gooseberries.....	quart	0	6	0	Raspberries.....	lb.	0	0	0 0
Grapes, hothouse.....	lb.	1	6	6	Strawberries.....	½ lb.	0	0	0 0
Lemons.....	½ 100 lb	0	24	0	Walnuts.....	bushel	10	0	16 0
Melons.....	each	3	0	0	ditto.....	½ 100	2	0	2 0

VEGETABLES.

	s.	d.	s.	d.		s.	d.	s.	d.
Artichokes.....	doz.	8	0	6	Lettuce.....	doz.	1	0	2 0
Asparagus.....	½ 100	0	0	0	Muscaroms.....	pottle	2	0	3 0
French.....	do.	0	0	0	Mustard & Cress, punnet	0	2	0	0
Beans, Kidney.....	½ sieve	3	4	0	Onions.....	bushel	8	0	5 0
Broad.....	bushel	4	0	0	pickling.....	quart	0	6	0 0
Beet, Red.....	doz	1	0	3	Parsley per doz.	bunches	2	0	4 0
Broccoli.....	handle	0	9	1	Parsnips.....	doz.	0	9	1 0
Cabbage.....	doz.	2	0	3	Peas.....	quart	1	0	1 6
Capisiums.....	½ 100	0	0	0	Potatoes.....	bushel	3	6	6 0
Carrots.....	bunch	0	6	1	Kidney.....	do.	4	0	8 0
Cauliflower.....	doz.	3	0	6	New.....	½ lb.	0	0	0 0
Celery.....	bundle	4	6	2	Radishes.....	doz.	1	0	1 6
Coleworts.....	doz.	2	6	4	Rhubarb.....	bundle	0	9	1 0
Cucumbers.....	each	4	1	0	Salsafy.....	bundle	1	6	0 0
pickling.....	doz.	0	0	6	Scorzoner.....	bundle	1	0	0 0
Endive.....	doz.	2	0	0	Sea-kale.....	basket	0	0	0 0
Fennel.....	bunch	0	8	0	Shallots.....	lb.	0	6	0 0
Garlic.....	lb.	0	6	0	Spinach.....	bushel	2	0	8 0
Herbs.....	bunch	0	6	0	Tomatoes.....	doz.	1	0	3 0
Horseradish.....	bundle	3	4	0	Turnips.....	bunch	0	3	0 0
Leeks.....	do.	0	3	0	Vegetable Marrows.....	doz.	2	0	3 0

WEEKLY CALENDAR.

Day of Month.	Day of Week.	SEPTEMBER 3—9, 1874.	Average Temperature near London.			Rain in 43 years.	Sun Rises	Sun Sets.	Moon Rises.	Moon Sets.	Moon's Age.	Clock after Sun.	Day of Year.
			Day.	Night.	Mean.	Days.	m. h.	m. h.	m. h.	m. h.	Days.	m. a.	
3	TH	Worsley and Swinton Horticultural Show.	71.8	47.7	59.2	19	17 45	41 6	47 9	39 2	23	0 46	246
4	F		71.0	46.7	58.9	19	19 5	39 6	38 10	51 3	23	1 6	247
5	S	Rentfrew Horticultural Show.	70.4	47.1	58.8	18	20 5	37 6	43 11	46 4	24	1 25	248
6	SUN	14 SUNDAY AFTER TRINITY.	70.2	46.8	58.5	20	22 5	34 6	morn.	26 5	25	1 47	249
7	M	Twilight ends 8.36 P.M.	70.3	47.5	58.9	19	24 5	32 6	58 0	53 5	26	2 6	250
8	TU	Crystal Palace Autumn Fruit and Flower Show.	69.4	48.0	58.7	19	25 5	30 6	16 2	13 6	27	2 25	251
9	W	Ditto continued.	69.1	48.1	58.6	19	27 5	28 6	32 3	28 6	28	2 46	252

From observations taken near London during forty-three years, the average day temperature of the week is 70.3°; and its night temperature 47.4°. The greatest heat was 91°, on the 7th, 1868; and the lowest cold 28°, on the 7th, 1856. The greatest fall of rain was 1.09 inch.

AUBRIETIAS, AND THEIR CULTURE.



AMONGST flowers for spring and early summer—flowers of the simplest, easiest, hardest culture, flowers dense and telling in colour, and flowers that will grow in any sort of soil in anybody's garden—few deserve higher rank, if few are more lowly in habit, than the Aubrietias. Was it "WILTSHIRE REC-TOR" who some time ago detected some special virtue in men of low stature, and quoted M. Thiers, Nelson, Disraeli, Lord John Russell, &c., as examples? What, if the notion had any kernel in it, would become of literary men if represented by Samuel Johnson and statesmen by Prince Bismarck? No; there is nothing in it. But yet we often find little men the most fierce—no, energetic; little women the—well, the most manly; little dogs the most snappish; little bantams the most pugnacious. Suppose we admit that, and also that a little good-humoured banter is refreshing, then it will not matter whether or not I am a great gardener or our genial friend a little parson, or whether, as is far more likely, just the reverse is the case, and that I am the "little 'un" after all. We will decide to let each one have it as he will; but—to come to business—don't forget the Aubrietias and the little ones in the ascendant.

Actually the little *Omphalodes verna* has cropped up, and Mr. Record has exactly hit its culture. For places partially shaded by trees, and used in conjunction with the variegated Daisy (*Bellis aeneo-lobata*), it makes charming little beds arranged according to taste. Years ago I used it with great satisfaction. A broad border of it round the white Spring Woodroof is chaste and pretty partly under trees. It is very adaptable, used in the circles at the base of single trees or Conifers, where it grows well, and has a chaste and agreeable effect without doing any harm. Thus much in response to Mr. Record. The Aubrietias, however, are not like it, except in humble stature. They rejoice in sun, shade and extreme moisture being contrary to their nature. They are rock plants *par excellence*, only put them in a suitable spot. For covering miniature knolls, or little elevations in sunny corners such as one often sees in urban, suburban, and rural villa gardens, they rank amongst the best of all Nature's gifts. They are admirable for window boxes, and the various little schemes adopted to make a window-sill inviting. For vases of home construction, as the hollow stem of a tree stuck up here and there, they fit to perfection, or a sanitary pipe stuck in the ground socket uppermost affords a fitting receptacle for them, and if jutting out of or contiguous to a rustic pile it is not to be despised.

Does the sanitary idea provoke a smile? Well, I am fortified, having, in fact, royal patronage for a shield. No long time ago, unless I am very much mistaken, I saw a pair of these sanitary vases within the precincts of Windsor Castle, and not a stone's throw from St. George's Chapel. There! give over laughing if you are loyal,

as all are who read these pages. They can be used now without compunction and with a conscience void of reproach; and if any fashionable floral critic, who can tolerate nothing but the "latest out," should give you to understand they are an outrage on the taste of the times, tell him seriously that the "Queen has them in her garden," and you are safe at once. Ten to one he will be converted there and then, and in the exuberance of his feelings reply with, "Bless the Queen, how homely she is!"

But the Aubrietias are useful for other and more general purposes of garden decoration. For marginal lines or clumps in the front of beds and borders they have a great deal to recommend them. Their profusion of bloom, compact dense habit, and firm and decisive colour, summon them to the front as amongst the very best of spring and early summer flowers. In their colour and habit they have no equal at their season—say March to June, both inclusive—and in fact at any season but few things can be found to surpass them. Given an instance. Plant a front row of Aubrietia, next *Iberis corifolia*, next, again, scarlet Lothian Stocks; or fill a circular bed on the same principle, and then say what can be finer and more attractive, more gay and yet more quiet, at any period of the year. But then comes the cry of fear—the old bugbear again—of "What can we have after them?" I recollect some years ago centering a bed with *Campanula pentagonia* (rich blue), edging with an old *Iberis*, and margining with an Aubrietia. It gave such pleasure to the owner that when, in July, I essayed to remove and refill with *Perilla* and white Asters (both sown in the open in May, and pricked-out on a layer of manure), he said, "No. Let it alone; I will respect that bed for what it has been." That was a true respect for flowers. It would be none the worse, and enjoyment none the less, if such a feeling were more general. There is any amount of respect for an empty bed for the sake of the future. Why not respect the past? It is well to look forward with pleasurable feelings, but make the present right, and is there not solid enduring enjoyment to be derived from the past? On reflection everyone will admit that it must be so, and that it is the royal road to attain the fulfilment of any cherished aspiration. But a plan like that would not do in a uniform geometric garden, where a break in the design would be fatal. It is not suggested for where it will not do, only for where it is adaptable. The name of such places is legion, and those who cannot find one may make one, and grow and enjoy these old flowers. Enjoy them and respect them, and so make the pleasure lasting.

Besides being used in continuous lines and margins, the Aubrietias are excellent plants for the fronts of mixed beds—none better, and no places better for them. There, too, they will be respected as well as admired, as I have ever observed that those who prefer this enjoyable style of gardening have an innate love for flowers and plants individually. Used in this simple manner in richly-coloured circular clumps a foot across, more or less, according to taste, in alternation with Golden Feather, *Iberis*,

yellow Pansies, &c., they will contribute no mean share to the general display. After flowering they can be clipped to any size required. They will then take up but little room, and look anything but untidy, or they can be removed altogether to a reserve plot.

The *Aubrietias* are easily increased by root-divisions if plentiful, and good-sized blooming plants are reared at once by slips under hand-lights in summer, or quicker by cuttings of young shoots in a gentle heat in spring, but they must not remain close and warm a moment longer than is absolutely necessary. The easiest way, however, of all to get stout, healthy plants in large numbers is to sow seed. It germinates freely if kept regularly moist. In this way thousands may soon be had. If sown in heat in spring, hardened-off, and subsequently pricked-off in the open, they make useful flowering plants in a year from the day of sowing, and will then flower a lifetime with reasonable treatment. Sown in June in the open border they make nice tufts the same season if cared for, and the following year are splendid clumps. It is thus a very simple and inexpensive matter to raise any amount of stock.

As to species and varieties, there are new ones said to be fine. I have not proved them, therefore am unable to speak practically, and my path is clear to say nothing on hearsay. There are old ones, as *deltoidea*, *purpurea*, *hesperidiflora*, &c., which are all pretty for the purposes named; but one neither new nor old is better than these—*græca*. I am able to speak of *Aubrietia græca* raised from seed as one of the very best amongst compact-growing spring flowers. Isolated—yet not too much so—clumps in a mixed border, or in continuous lines as edgings to walks and beds, it will surely attract the eye. For four months out of the twelve the plants are clothed with flowers, and the remaining eight they are not ugly, not unsightly. That is as much, yea, more, than can be said of many a plant of greater fame and popularity. The variegated forms of this plant are amongst the most chaste and lovely of our hardy gems. They must be perpetuated by slips or cuttings, and not be planted in damp shaded places. This tribe of plants suffered by the extreme wet of 1872. I observed plants on the north sides of beds and shady spots all killed, while on the south and drier side they did not greatly suffer, yet a few sustained injury.

If at this season of the year I were commencing to get up a stock for final planting next autumn, I should sow seed at once in free sandy soil in places that I could cover with hand-lights or spare sashes in winter to keep off heavy falls of snow or extreme wet. I would sow thinly, let the plants remain in the seed bed until spring, and then prick out in nursery beds. By the autumn they would be nice compact plants in the best condition for removal. By sowing in heat in spring the same end is attained, but then many who would like *Aubrietias* have not the heat and means of raising them under glass. Or, assuming the presence of a few old plants, I would slip them into little tufts, and plant in beds which contained an intermixture of sand or road grit in September, not under a north wall but in the open. At that season they would probably require little or no shading. I would not use short cuttings, but long slips put in slanting with the dibber, leaving only the tip of green above the surface—that is, there might be 3 or 4 inches of root-stem—it may be doubled or coiled—in the ground, and an inch of top growth above to make the plant. Cuttings will also strike at this season in sand under hand-lights after the manner of Pansies or *Calceolarias*.

For vigour of plant and fine bloom, however, my experience induces me to recommend *Aubrietia græca* raised from seed as the most certain and satisfactory mode of securing a healthy stock. When planted in their blooming quarters, if a dense carpet is required they must be put in closely in the autumn, leaving as little space as possible between the foliage of one plant and that of the other, as they have not much time to spread before blooming, and unless they are well rooted a portion may perish from the winter's wet. Therefore the more closely they are put in the better to make safe against blanks which mar the general effect.—J. WRIGHT.

SPRING LETTUCES.

As this is the season for preparing for what I consider quite a necessary adjunct to one's supply of vegetables—good, clean, and crisp Lettuces in the early spring, may I just give my experience in the matter? I sowed last August some seed of Cabbage and Cos Lettuces, choosing for the former Sutton's

Commodore Nutt (an admirable Lettuce of the Tom Thumb type), and the old Hammersmith, and for the latter a Black-seeded Bath Cos. They were sown in slightly raised beds, and afterwards transplanted into Looker's Acme frames, and from these I had an abundant supply of good crisp Lettuces all through the early spring. I know that some run down these frames, extol wood in preference, and speak of breakages, &c. Let me say that I have tried both the wood frames and these Acemes, and that I vastly prefer the latter. Care must be taken in placing them down that the ground is made firm where they are put, so that in the case of either wet or frost they may not be altered from their position. I had no breakages last winter save from carelessness. The Cos Lettuce did not answer so well, and I am this winter depending on Commodore Nutt and Hammersmith.

I had all my Potatoes (about a quarter of an acre) lifted and housed by the 15th. They are of very fair size and perfectly free from disease, with only a few instances of super-tuberation. The quality seems to be excellent. More of this anon.—D., Deal.

NOTES ON LIFTING AND ROOT-PRUNING FRUIT TREES.—No. 2.

As already remarked, trees on the free stock are not adapted for being lifted, for the results are a temporary increase of fruit with great loss of quality, as lifting and root-pruning arrest for a time the free growth, only for this to be renewed with the emission of fresh roots, the old parts falling into decay, or producing fruit inferior in size and quality. Lifting, then, when distantly practised being attended with risk of life, and root-pruning with a diminution of vigour, it follows that these modes of inducing fruitfulness in trees on the free stock are not desirable. Judicious root-pruning may in some cases be attended with satisfactory results; but as I can see it, and as I have seen it practised, the operation is best left alone, the cultivator in the first instance freeing the subsoil of water by draining, loosening the soil by trenching, enriching it with manure, and planting the trees high on a mound in fact, for who ever saw a tree in nature in a hole? On the contrary, trees have their roots, as it were, upon a hillock. The planter should give them plenty of room fully to develop the head, and no pruning beyond what is required for the proper disposition of the branches, removing irregularities of growth for the due admission of light and air. Trees so treated, according to my experience, will bear infinitely heavier crops of finer quality than those frequently lifted or periodically root-pruned. A refractory subject may sometimes appear a fitting one for root-pruning, but do not practise this operation; instead, cut off the tree's head, and put on as many grafts as will form a large head in two or three years with as much fruit as, and finer, than will be produced in a generation by root-pruning. This practice is very much older than any living pomologist, and of far greater service in bringing sterile trees into a state of fruitfulness than all the root-pruning extant. The free stock means free growth, large trees, and fruit by the cartload. It is those affording fruit for the million, whilst the dwarfs go in for and win with the often ill-to-please, capricious consumer. Measure them by their usefulness. Appearance, quality, are everything to the latter, but the general consumer requires bulk as well, and that, he knows, requires a bulky thing to produce it, or the dwarfs to be vastly multiplied.

I have a suggestion to offer, after observing that we have in the many dells, valleys, and on mountain sides, spots of good soil unsuited for tillage, now growing nothing but a jungle of indigenous scrub, not unfrequently the Sloe and Crab, which are conspicuous objects in the landscape at their flowering period; and these would be still more so were such unprofitable spots planted with Apple, Pear, and Plum trees on the free stock, the Plums forming the marginal lines, and the Apples and Pears in alternate lines, with Filberts and Cob Nuts between. The nature of the ground would seem to be especially suited to the runaway character of the Pear and Crab. A pretty cottage would give a charm to the landscape, and there would be a profitable return to the proprietor, and a competence to an industrious and enterprising man. Thousands of orchards and as many homes might be formed in our land; there is no need to resort to clearing the aboriginal forest of some distant country when there are such opportunities of improvement at home. The result would benefit the proprietor, the occupier, and the fruit-consumer, especially as it would be obtained from what had in all time

been wanting, the efforts of the cultivating mind and hand. We may go on covering the best of ground with acre upon acre of bush and pyramid fruit trees; never shall we be able to feed the million with fruit in such a way as to meet the demand at a suitable price until we start out on a new track, leaving those who possess gardens, which the many do not, to indulge in their hobby to the full.

But some will say I am wandering from the subject. Not at all, for I want it to be understood that the Crab and Pear usually grow well, and when man has put upon the one the Apple, or on the other the improved Pear, each bears annually, or at furthest every alternate year, bushels of fruit, which are sweetened with sugar, an easier thing now more duty is off, infinitely better for the stomach than millions of gallons of liquor containing the poison alcohol. Cider, even, is far better than malt liquor or spirit.

Now for the dwarf stock. It is undoubtedly the stock of the age—the age of luxury. It is not suited for planting in orchards, or on ground kept clear and left to cater for itself, having no more feeding than that of the soil, and that brought down by dew and rain. In equal conditions to those in which we usually find trees on the free stock, those on the dwarf are not nearly so productive, nor in any way so satisfactory; whilst trees on the free stock succeed with almost any treatment and anywhere, those on the dwarf stock require, if not good soil, at least very liberal culture, and such being the case, they are wisely recommended for gardens, the soil of which, if not good, is made so by fertilising agents. It is only just to the dwarf stock, and to those possessing trees thereon, to state this; many have trees all aglow in spring with blossom, and are disappointed at the meagre quantity and inferior quality of the fruit. Quantity and quality of fruit are results from the means employed to secure them. The planter may begrudge every shovelful of manure for his fruit trees, and expect them to bear full and fine crops. It is a parallel case with that of a proprietor who was particularly partial to fine, solid, crisp, nutty Celery, and denied his gardener access to the manure heap. To expect is one thing; to adopt and afford means calculated to realise, another. Those who cannot be liberal to their fruit trees in the way of manure will be acting wisely to plant none but those on the free stock.

Trees on the dwarf stock are only for a liberal cultivating hand, for they are great rooters; they commence to put out from the stem fresh roots in autumn, and continue to produce them in mild weather through the winter. This I know from having moved them almost every day of the months from September to April. I have even lifted them in the middle of summer, in July and August, in full foliage under a broiling sun, and always found fresh white roots issuing from the root-stem. These roots are rather thick, and at first white; they extend considerably, and become a mass of fibres, ramifying in all directions. Owing to the existence of these roots, which I believe to be of annual, or certainly not great longevity, the lifting or transplanting of trees on the dwarf stock is at no time attended with nearly the same risk as in the case of trees upon the free stock. This I have had ample opportunity of observing, for it has fallen to my share to plant and make alterations in gardens to an extent which, for a gardener, was far from enviable. Not a single failure from transplantation have I known with fruit trees on the dwarf stock. Deaths I have known, but they have arisen from want of transplantation rather than in consequence of it. I remember once, three years ago, moving a trained Plum tree from a south to a west wall in the middle of June, its branches covering a space of 20 feet by 10 feet, and at the same time some Peach trees of not much less size were removed, and they, the Plums, are now in full crop, and the Peaches have borne a heavy crop, they having been forced the last three seasons. I mention this to show that the Plum, if not a dwarfing stock, is equally safe for moving as those known as such—*i.e.*, the Paradise for the Apple, the Quince for the Pear, and the Mahaleb for the Cherry. From the fact also of the Plum being employed as a stock for the Peach, Nectarine, and Apricot, the above observations are made on its free transplanting nature, and it must be admitted to be the best rooted subject of the whole.—G. ABLEY.

THE POTATO CROP.—I agree with "H. G. M." (page 148), that the early frost has done much towards injuring the early crops he named. In respect to the Early Rose, I have grown it three seasons, and it has not produced more than one-third that it did the other two seasons. In regard to the Early

Vermont, I must state that my crop far exceeds his. I planted half a pound, which were three seed-sized Potatoes, and when dug-up the tubers weighed 30 lbs., and are all good and equal-sized Potatoes; twelve of them weigh 5 lbs.—T. M. A. C., *Kemsdale, Faversham*.

NOTES ON ROSES—SEEDLING BRIARS.

WITH regard to the letter signed "AMATEUR, *Liverpool*," I beg to say that I did not include Baron Chaurand in the number of those Roses that had gone out of cultivation. If "AMATEUR" will refer to my letter he will see that those I spoke of are in quite a different paragraph. I know that most of our best rosarians sell this Rose, but I do not think one of them would recommend it as an exhibition variety. There is a great difference between a mere garden Rose and an exhibition Rose.

With regard to the seedling Briar, I am most happy to inform "MIDLAND COUNTIES" that he can procure any number from Mr. Prince, of Oxford, at the extraordinarily low price of 1s. 6d. per hundred. At least so Mr. Prince writes me word, though when I read his letter I could hardly believe my eyes. He adds also the gratifying news, "I have nearly half a million that I can spare." As the best news that I have received for a very long time, I am anxious to let other people besides myself benefit by the most liberal offer I have ever met with. As Briars even in this neighbourhood cost 8s. a hundred, seedling Briars at 1s. 6d. are indeed wonderfully cheap. If Prince has made a mistake it is his, not my fault, if your readers are misled.

With regard to Madame Lacharme, since my article appeared I have received a letter from Mr. Cant, of Colchester, in which he states that he entirely agrees with all I said as to the worthlessness of this variety, and no less rosarians than Mr. Baker of Heavitree, and Mr. Beachey of Torquay, and Mr. Robert Veitch of Exeter, have all commended my condemnation of this Rose. As a pot Rose I am told it may do, and certainly the only decent blooms I have seen this year were on a pot Rose: and as exhibitors in June and July cut their blooms, not from conservatories but from the open ground, I do not see that this is much of a recommendation.

And now allow me to say a few words about the comparatively new Tea Marie Van Houtte. This is a most beautiful Rose, a constant bloomer, and possessing a good constitution. Since Catherine Mermet we have had no Tea Rose which can take the first rank except this beautiful variety. I showed a treble of her at Crewkerne, and the young *débütante* created something like a furor. Numbers of people asked me for buds, and I feel sure that no nurserymen will have a difficulty in meeting the demand for her this autumn. I do not think it is possible to over-rate or over-praise these two varieties and Souvenir d'Elise. I wish I had a thousand of each of them, and I will soon. I put in every bud I can find; I wait till the bloom is expanded, and then put the buds which are under the bloom into shoots which are low down on the Briar.—JOHN B. M. CAMM.

WINTERING GLADIOLUS CORMS.

I HAVE a tolerably good collection of Gladioli, which, thanks to the instructions contained in the Rev. H. Dombrain's book on that flower, have done extra well this year. The great difficulty to contend with here, however, is the harvesting of the corms. It is all very well for Mr. Dombrain to leave his bulbs in the ground until the end of November, but here (Renfrew) the most severe frosts we have are sometimes at that period of the year. Do you think that it would facilitate the ripening without being detrimental to the bulbs if the stalks, immediately after blooming, were bent down about an inch above the ground, as is done with thick-necked Onions?—RENFREW.

[If "RENFREW" will again refer to my book he will find that I name towards the end of October, not November, as the best period for taking up the corms (page 27). We rarely have any frosts at that period, and even were there any it would not injure them. The plan proposed of bending the stems for the purpose of advancing the ripening, would not be desirable. I should much prefer doing what I have sometimes done with Ranunculus—take a hand-fork and gently lift the bulb, not taking it out altogether, but loosening the root-hold. I should think, however, if "RENFREW" watch the weather he will find in the third or fourth week of October opportunities for har-

vesting. Let him not mind their being green, they will harvest well notwithstanding.—D., *Deal*.

THE TURNIP FLEA.

Will you give some information in the Journal about the small black beetle—I believe it is a beetle—which often, and this year greatly, infests gardens in the neighbourhood of fields of brown Mustard? With me they are devouring Turnips and Cabbages, Stocks and Nasturtiums. I would send some specimens, but as they leap like the liveliest of fleas, the catching would take more time than I have to spare.—A. B. G.

[We sympathise with you whilst we laugh over your letter. No insect is more insidious or more sweeping in the destruction it brings upon some of the farmers' and gardeners' crops than the Turnip Flea (*Haltica nemorum*). Turnips of all kinds, Beetroot, Mangold Wurtzel, Radishes, and Flax are all liable to be destroyed by this insect; and it is only one instance of many of the weakness of man when opposed to the apparently insignificant natural agents with which God works, that, despite the indefatigably-applied skill and labour of the cultivator, this minute insect will often rob him of £100,000 worth of Turnips in a single county in one year. It is a singular misapplication of terms that this insect is known among cultivators of the soil as the Black Fly and the Turnip Fly, but none of them ever call it a beetle, which it really is; and the most descriptive name is the Turnip Flea beetle, for this describes not only its real nature, but its favourite food, and its extraordinary power of skipping or leaping like the common flea. This insect is represented in fig. 60. of its natural size and magnified. The body, one-eighth of an inch long, is rather flattened, and of a brassy-black colour, thickly dotted; the wing-cases are greenish black, with a pale yellow broad line on each; the base of the feelers (antennæ) and the legs are pale clay-coloured. The eggs are laid on the under side of the rough leaf of the Turnip from April to September; they hatch in two days. Their maggots live between the two skins or cuticles of the rough leaf, and arrive at maturity in sixteen days. The chrysalis is buried just beneath the surface of the earth, where it remains about a fortnight. The beetles are torpid through the winter, and revive in the spring, when they destroy the two first or seed leaves of the young Turnip. There are five or six broods in a season. These insects are most to be feared in fine seasons. Heavy rains, cold springs, and long droughts destroy them. Their scent is very perfect: the beetles fly against the wind, and are attracted from a distance. The rapid growth of the plant is the best security against them: to secure which, sow plenty of seed all of the same age. Burning the surface of the land is beneficial, by destroying the chrysalids. Deep digging is an excellent practice when the chrysalids are in the soil. Drilling is a far superior practice to sowing the seed broadcast. Destroy Charlock, it affords support to the beetles before the Turnips come up. The most effectual banishment of the Turnip Fleas, we think, is secured by sowing the surface of the soil with gas-lime two or three mornings after the Turnip seed has been sown. This is so offensive to the insect as to drive it away just at the time the young plants are appearing above ground.—Ems.]



Fig. 60.—Turnip Flea.

commend to all rosarians to try the plan, and not to be obliged to France or any other country when we can be better supplied at home.

Take out to the hedgerows your sécateur (a grand instrument for the prickly Briar), and whenever one of the right sort is met with lop-off its branches (farmers will not be displeased at this), take it home, and get it into the ground previously dug for the purpose. Then, in the course of two or three years, you will be delighted with your Briars—tall, clean, and handsome. Whenever one of the old stocks sends out a sucker I am not at all displeased. I either work it on the spot, or transplant it to the little nursery of cuttings. When I find a branch of a Rose I have been in search of containing, say, six good buds, I work three of these on the Briar and the other three on the Manetti, and if the Rose prove worthy, in future years propagate it on its favourite stock accordingly. Always insert the bud on the north side of the branch, where neither summer nor winter suns can shine upon it.

There is little fear of failure just now with good buds and excellent stocks, but the spring is a dangerous period. Just as the Rose bud is beginning to shoot forth, that abominable pest the weevil in one night has the bud eaten out and destroyed. I lost fully five-sixths of my buds last spring in this manner. Remembering that neither men, women, nor children relish castor oil, as a remedy late in the season I went over every bud and bedaubed it with that liquid. I thought of train oil, but was afraid of injuring the bud. If I can hear of no enre from your Rose friends, I shall, early next March, go over every bud with the castor oil, and thus prove whether it be efficacious or not. Any hint in the Journal from your enthusiastic growers will be highly esteemed.—DAVID DODDS, *Kelso*.

CONSTRUCTING GREENHOUSES.—No. 2.

A VERY useful structure is shown in fig. 61:—There are four shelves for plants, each about 10 inches wide, except the top one, which is 2 feet wide. Of course they become gradually shorter as they rise to the central or top one. The shelves, as well as the lower portion for Ferns, are made of strong deal laths instead of boards. Besides the water usually required by Ferns, they of necessity receive additional water when the plants above are watered; but for common Ferns this is rather a benefit than otherwise.

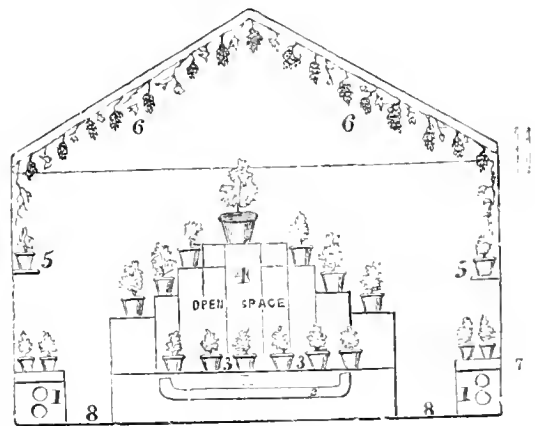


Fig. 61.

1. Four-inch hot-water pipes.
2. Glazed drain-pipe for blue round or under Fern-frame.
3. Fern-platform.
4. Flower-stand.
5. Strawberry-shelf.
6. Vines.
7. Glass rises from here.
8. Flagged path, 30 inches wide.

The conservatory is built on arches, and the Vine roots run both outside and inside.

The house is lofty, being 11 feet to the springing of the span roof, which, to the apex, again rises 4 feet 6 inches. It is placed with one end to the south-west, the other end opening by the glazed folding-doors into a library, and it has the sun on it from 9 A.M. for the rest of the day.

There are Vines trained on the roof which answer well, and afford a good shade for flowers and Ferns. In cold weather the house is heated both by hot-water pipes and by a 12-inch flue of glazed drain pipes.

It is 20 feet square, has a flagged walk round the plant-stand,

BRIAR STOCKS.

I OBSERVE your correspondents are again discussing Briar stocks for Roses, and extolling the seedling Briars so much that they recommend their friends to send to France for a cargo, since they cannot grow them in England. Why not try cuttings, as I recommended last November? Now and next month is the proper time. I put in forty yesterday, and will continue to add more all next month whenever I fall in with a favourite Briar.

I shape my cuttings exactly like those of Gooseberries, and make them as firm in the ground as possible. I take off everyone by the heel. I am confident these will grow, as I have for ten or twelve years proved the fact. I therefore strongly re-

and round the sides, at 2 feet high, a zinc trough 20 inches wide and 4 inches deep, to hold sand, in which plants for propagation and planting-out are placed; and at 7 feet from the ground a shelf 12 inches wide runs round for Strawberries or other plants.

A smaller house and gas-heated is this:—The length of the house (figs. 62 and 63) is 17 feet 6 inches, breadth 7 feet 6 inches, divided into three compartments by brickwork, the end one just large enough to hold a small open hot-water tank about 18 inches

of gas in twenty-four hours (value 3*d.*) the temperature under the platform and also that of the soil is 80° and 75° in the two divisions respectively, and the use of a larger burner raises these figures to 110° and 100°.

Bunsen's burner (fig. 61) is simply a contrivance by which the gas is mixed with an excess of air before it is burned, so as to insure perfect combustion. It gives only a pale blue flame, but intense heat. Were the heat applied directly by a flue or pipe instead of by hot water the economy would be far



Fig. 62.

A, Pipe.
B, Boards.
C, Soil.

D, D, Tubes with covers to increase top heat if necessary.

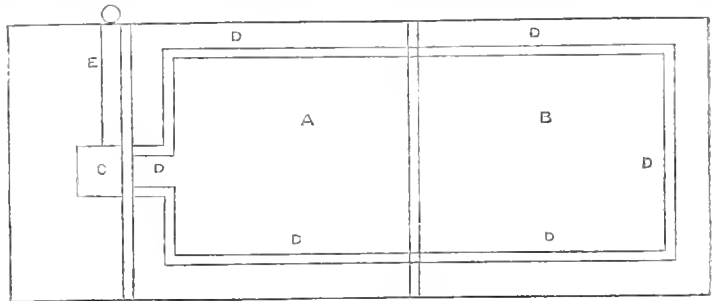


Fig. 63.

A, Warmer division.
B, Cooler division.

C, Tank.
D, Pipes.

E, Pipe to carry off products of combustion.

square, from which a single set of 3-inch pipes runs round the whole length of the frame.

The tank is set on a little brick chamber containing the gas-burner attached by an india-rubber tube, and a zinc pipe serves to carry off the products of combustion.

The pipes are boarded over with rough 2-inch boards, on which there is from 9 inches to 1 foot of soil, so that the heat is almost entirely confined to the bottom. Each compartment

greater. For an amateur the convenience of turning on the gas in a winter's night and feeling safe till morning is valuable.

NOVELTIES IN THE ROYAL GARDENS, KEW.

On the Rockwork there is a nice patch of the charming *Nertera depressa*. It is thickly studded with berries like those of *Solanum Capsicastrum* reduced to the size of small peas. Though cultivated for the last five years, it seems only now to be receiving the favour it deserves. It is a native of bleak antarctic mountains, and, notwithstanding, grows rapidly and well in a forcing pit during the spring of the year, and may then be increased to any extent by means of the creeping rooting stems. In summer it does well in cold frames. It is known to some as *N. scapanioides*, which name was given by Lange in his seed catalogue of 1868. *N. depressa* is the oldest, and should therefore be upheld. It is found on the Andes from Cape Horn to New Grenada, on the island of Tristan d'Aunha, and in New Zealand and Tasmania. *Gaura Lindheimeri* is very pretty. It has a light appearance, grows about 2 feet high; the stems are slender, and terminate in racemes of white flowers. *Euphorbia amygdaloides variegata* appears to be of some value; it has several branches, forming a neat tuft of prettily-variegated foliage. *Pentstemon antirrhinoides* is very distinct from other cultivated species; its habit is shrubby, of stiff twigs with small glossy leaves, and it has yellow flowers.

Zygopetalum maxillare is in flower in the Orchid house; its chief beauty resides in the rich blue lip. The new *Cypripedium Roezli* is showing flower.

A variegated form of *Azara integrifolia*, which originated at Kew, is planted on the wall of the new range. It is of much beauty when growing freely, and appears likely to stand mild winters with wall protection. The leaves are orbicular or obovate, and the variegation is pale yellow disposed in a similar way to *Euonymus*. *A. integrifolia* is "native in groves at Concepcion in Chili."

Enothera serrulata is a new annual, flowering in the Herbaceous ground. It has wiry stems and lanceolate leaves. The flowers are yellow, and freely produced; they remain open for several days. It grows about a foot high, and appears worth cultivation. *Cleome heptaphylla* is very showy; it has viscid digitate leaves, and large purple flowers in terminal racemes. *Datura meteloides* is one of the best of the annual members of the genus. The flowers are large, and tinged with violet.

In the Temperate house are a few plants of *Solanum racemigerum*. It is, perhaps, a form of the Tomato, and is of considerable value cultivated in pots for conservatory decoration. In habit it is not coarse. It bears a quantity of fruit in racemes like Red Currants, but much larger. The treatment should be liberal, as the leaves are likely to turn yellow if the roots are much confined.

A plant of *Erythrina Crista-galli* is very ornamental in one of the octagons. It is of great value for greenhouse decoration at this season from its fine racemes of large scarlet flowers.

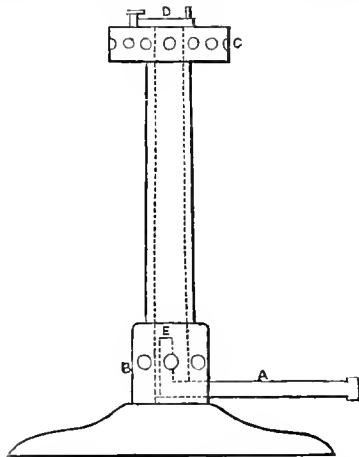


Fig. 64.—BUNSEN'S BURNER. HEIGHT 6 INCHES.

A, Gas-pipe, the jet issuing at E.
B, Holes to admit excess of air.
C, Apertures in the circular rim at which the gas is lighted.
F, Circular lid or plate, which is slid on one side when it is preferred to light the gas at the top.

When the plate F closes the aperture at the top the flame issues from the holes C in a crown, as beneath. When it is left open the flame rises in a straight jet of pale blue.

is provided, however, with two wooden tubes, 6 inches square, communicating between the space below the boards and the air above the soil, these being covered by wooden caps, by the

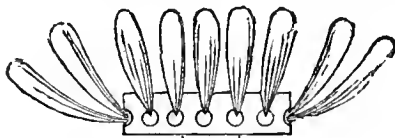


Fig. 65.

removal of which more or less heat may be allowed to rise up to the surface. With a small burner consuming about 80 feet

When going to rest the shoots should be cut back to near the base, and the plant must be kept dry for the winter. Young short shoots taken off with a heel in spring strike readily. Several Eucalypti are in flower or bud; *E. corymbosa*, *E. calophylla* in the former, and *E. globulus* and *E. cordata* in the latter condition.

ROYAL HORTICULTURAL SOCIETY.

SEPTEMBER 2ND.

THE Show was held on this occasion in the western conservatory arcade, and though in the floral department the number of exhibits was not large, the quality was generally very good. The Dahlias in particular were of extraordinary size; the Gladioli were not so good, owing to the earliness of the season; while the Hollyhocks, from a cause too well known to the growers of that noble autumn flower, were scarcely represented. Asters were well shown, and in the vegetable division there was a strong muster.

The first class in the schedule was for thirty-six Dahlias (open). Here Mr. Keynes, of Salisbury, was first with very large finely-built flowers of Earl Radnor, W. Keynes, Herbert Turner, Harriet Tetterell, Arbitrator, Lady Jane Ellis, Victory, John Standish, Flora Wyatt, Queen's Messenger, Mrs. Henshaw, Mrs. Harris, Thomas Goodwin, Picotee, Willie Eckford, George Goodhall, splendid colour; Pauline, Mrs. Eckford, and Flag of Truce. Mr. C. Turner was second, also with fine blooms; and Mr. Walker, of Thame, third.

In the nurserymen's class for twenty-four blooms Mr. Keynes was again first with, among others, fine examples of J. N. Keynes, Lord Derby, James Cocker, Arbitrator, Flag of Truce, John Standish, John Downie, Annie Neville, W. Keynes, yellow seedling, margined with purple; Mrs. Harris, Flora Wyatt, Queen's Messenger, and Herbert Purchase. Second came Mr. Turner, and third Mr. Walker.

In the amateurs' class for twelve Mr. H. Glascock, Rye Street, Bishop's Stortford, was first with a good stand; Mr. Miller, gardener to J. T. Friend, Esq., Northdown, Margate, being second; and Mr. T. Anstiss, Brill, Bucks, third.

For twelve Fancies Mr. Keynes took the lead with very fine examples of Majestic, Rose Flake (Keynes), Flora Wyatt, Mrs. Saunders, Fanny Sturt, Richard Dean, Letty Collis, Motley, and Laura Haslam. The second prize went to Mr. Turner, of Slough, and equal third prizes to Mr. J. Seale, Vine Nursery, Sevenoaks, and Mr. Walker of Thame. For six Mr. Glascock was first, Mr. Anstiss second; and Mr. Harris, gardener to G. A. Ashby, Esq., Naseby Wooleys, Rugby, third.

The Gladioli, though not making so large a display as we expected—owing, no doubt, to the forwardness of the bloom this year—was still a great feature. Messrs. Kelway, of Langport, exhibited an admirable stand of twenty-four, taking the first prize in the class for that number. Among these were Lady Birdport, Dr. Lynn, Racilia, Dai, Algidum, Mr. Tucker, Norma, Sparkler, Salamander, Salmoneus, Colonus, all with splendid spikes. Some others were taken away to be submitted to the Committee. Second came Mr. Douglas, whose stand chiefly consisted of seedlings. The spikes were not so large as Messrs. Kelway's, but some of the seedlings were extremely fine in colour, especially 117. Third came Mr. Seale, of Sevenoaks. For twelve the Rev. Lord Hawke, Willingham, Gainsborough, was first with Lulli, Lacépède, Horace Vernet, De Mirbel, Murillo, M. Legouvé, Madame Krelage, Madame Verlot, Horace, Sir John Franklin, and Eugène Scribe. Mr. Douglas was second, and the Rev. H. H. Dombrain, Westwell, third. For six the Rev. Lord Hawke was again first with fine spikes of Murillo, Lacépède, M. Legouvé, Lulli, Eugène Scribe, and Psyche. Second came the Rev. H. H. Dombrain with excellent spikes of Madame Desportes, Beatrix, Schiller, Sir John Franklin, and Meyerbeer. These ran closely on Lord Hawke's. Mr. Douglas was a capital third.

Of Hollyhocks very few were shown, and these were of no great merit. No doubt the disease has been the cause of this. Mr. Chater and Lord Hawke took first prizes in the nurserymen's and amateurs' classes respectively.

For twenty-four French Asters, Mr. Lakin, Chipping Norton, was first with a very good stand well varied in colour; Mr. W. Parrott, St. Winfred's, Reigate, being second; and Mr. Walker, Thame, third. For German Asters, Mr. Benham, Bagnor, Newbury, was first with beautifully quilled examples, Mr. Betteridge, Chipping Norton, being second, and Mr. Lakin third, all with very good blooms.

The only pot Asters shown came from Mr. R. Dean, Ealing, who had a first prize.

Double Zinnias of great excellence came from Mr. Lakin, the second and third prizes going to Mr. Chater, Safron Walden, and Mr. Betteridge respectively.

A group of Asters came from Messrs. Carter & Co., of Ifigh Holborn, and one of Croton majesticum from Mr. Bull, of Chelsea.

Of early dessert Apples there were eight dishes. The first

prize went to Mr. B. Porter, gardener to Mrs. Benham, Isleworth, who had a nice-looking dessert Apple named Duchess. Mr. T. Benham, Bagnor, Newbury, was second with highly-coloured Red Astrachan. Mr. H. Harris, gardener to G. A. Ashby, Esq., Naseby Wooleys, was third.

The Pears exhibited were mostly Williams's Bon Chrétien. Mr. Porter was first with that sort, and Mr. Moorman, gardener to the Misses Christy, Coombe Bank, Kingston-on-Thames, second. Mr. D. Lumsden, Bloxholm Hall, Sleaford, was third with Jargonelle. There was only one dish of Tomatoes exhibited, a very good one, from Mr. T. Miller, gardener to J. Friend, Esq., Northdown, Margate; to it the first prize was awarded.

Baskets of salads in variety were sent from Mr. W. G. Pragnell, gardener to G. D. W. Digby, Esq., Sherborne Castle, Dorset; and Mr. E. Clarke, gardener to Mrs. J. K. Hall, Sutton, Surrey. The former, who showed the best, had Rollinson's Telegraph Cucumber, excellent white Celery, and other small salads.

The best twelve Onions were sent by Mr. J. Betteridge, The Common Hill, Chipping Norton; Mr. A. Parsons, The Gardens, Danesbury Park, Welwyn, second; and Mr. Walker, nurseryman, Thame, third. Immense specimens of the Giant Rocca were sent by Mr. Pragnell.

For twelve dishes of vegetables, distinct, Mr. Pragnell was first with a fine dish of Model Potatoes, White Spanish Onions, Tomatoes, Williams's Matchless Celery, Carrots, Leeks, &c. Mr. G. Bloxham, gardener to Sir P. D. P. Duncombe, Bart., Great Brickhill Manor, Bletchley, had a splendid dish of Early Coldstream Potatoes and large Red Tomatoes, but his brace of Cucumbers were coarse. Mr. G. T. Miles, gardener to Lord Carington, Wycombe Abbey, Bucks, was third.

For twenty dishes of Potatoes, ten round and ten kidney, Mr. R. Dean, Ealing, was first with very fine, even-sized specimens. Model, Early Market, Rector of Woodstock, whites, and Red Emperor, were the best rounds; Lapstone, Mr. W. F. Radelyffe, Bountiful, and Fillbasket, the best kidneys. Mr. C. Ross, gardener to C. Eyre, Esq., Welford Park, Newbury, was second. He, however, only exhibited eighteen sorts, as the two dishes named Early Goodrich and Goodrich Kidney are both Early Goodrich, and Oxfordshire and Cambridgeshire Kidney were the same sort. For ten dishes, Mr. G. T. Miles, gardener to Lord Carington, Wycombe Abbey, was first with very large and fine specimens of Bresee's Peerless, Dalmahoy, Early Goodrich, Pioneer, Rivers' Ashleaf, Myatt's Prolific, Prince of Wales, Mona's Pride, Red Regent, and Early Emperor, respecting the last two of which some doubt was expressed whether they were not the same. Mr. D. Lumsden and Mr. F. B. Baker, Aylesbury, took the other awards.

FRUIT COMMITTEE.—Alfred Smee, Esq., F.R.S., in the chair. Messrs. Carter & Co. contributed a collection of forty sorts of herbs, which received a unanimous vote of thanks; also fifteen sorts of Kale. A brace of very fine-looking Cucumbers was sent by Mr. Bloxham, gardener to Sir P. Duncombe, Bart., which were passed as not of sufficient merit. From Mr. R. Dean, Ealing, came a couple of Marrows, called the Boston Squash, which were passed. Mr. Bennett, gardener to the Marquis of Salisbury, Hatfield, sent a fine dish of Keye's Early Prolific Tomato, which is a very useful early sort. A vote of thanks was awarded. He also sent a dish of Lord Palmerston Peach, which was passed. Mr. Cox, of Redleaf, brought two dishes of a fine-looking Potato, which were referred to Chiswick for trial.

From Mr. Melville, The Royal Vineyard, St. Laurence, Jersey, came a seedling white Grape, called Duke of Edinburgh, which could not be adjudicated upon in the bad condition in which it came before the Committee. Another seedling Grape of large size came from Mr. E. Clarke, The Grange, Sutton, Surrey, and proved of no merit.

Mr. Smith, of Worcester, sent a dish of highly-coloured Apples, which were passed as being handsome but devoid of flavour; also a large Plum, called Dr. Hogg, similar to Pond's Seedling, but it was not thought so good as that variety. Messrs. Bunyard & Sons, of Maidstone, sent a dish of Alexandra Nonpareil Apples, a very small Russet looking sort, but of no particular merit. Another dish of Apples was sent by Messrs. Johnson & Sons, of Boston, Lincolnshire, but the variety was not considered worthy of any award, being very deficient in flavour.

Mr. Dancer, of Little Sutton, Chiswick, sent three dishes of very fine Pears. From the Society's Gardens at Chiswick came Beurré de l'Assomption Pear, which was of fine flavour, and received a first-class certificate. Mr. James Groom, of Henham Gardens, Wangford, sent another specimen of his African Melon, for which he received a vote of thanks from the Committee. Two other Melons were sent, one by Mr. Button, gardener, Cornham Court, Chippingham; and another by Mr. Bayman, gardener to the Hon. F. L. Gower, Holmesbury, near Dorking, neither of which was of any merit.

FLORAL COMMITTEE.—Mr. J. Fraser in the chair. Messrs. Veitch had first-class certificates for Solanum quitoense, with

noble *Wigandia*-like leaves measuring some 16 inches by 11 inches, and having purplish midribs—a fine subject for sub-tropical gardening; and for *Begonia* Model, producing an abundance of large, very deep rose-coloured flowers. They sent in addition a nice collection of *Strobilium* and other Orchids. Mr. Shields, gardener to the Rev. J. B. Norman, exhibited *Odontoglossum maxillare*, white, yellow at the base of the lip, spotted at the base of the sepals and petals with brown. A first-class certificate was awarded. Botanical certificates were given to Mr. Bull, of Chelsea, for *Drosera Menziesii* and *D. glanduligera*, the latter a pretty little white-flowered species.

From Messrs. E. G. Henderson & Son, St. John's Wood, came the true Resurrection Plant, *Salpiglossis lepidophylla*, for which a first-class certificate was granted, and a like award was made to the same firm for an extremely pretty deep rose-coloured Oleander called New Red Nerium. With this were white and pale yellow varieties. Mr. Bull had likewise a first-class certificate for *Cleocladia guineensis*, a rosy purple Orchid of tolerably showy appearance.

Mr. A. Barr, 10, New Road, Lower Tooting, contributed a group of cut Lilies, chiefly of the speciosum and tigrinum varieties. From Messrs. Veitch came a group of Boltze's Dwarf Bouquet Asters, a first-rate strain. Mr. Keynes, of Salisbury, had first-class certificates for Dahlias Countess of Pembroke, large pale yellow, delicately tipped in the centre with lilac purple; and for John McPherson, rich crimson purple self. Messrs. Kelway, of Langport, had a first-class certificate for *Gladiolus* Duchess of Edinburgh, rosy lilac, lower divisions pure white with violet stripes; also for James Kelway, scarlet, lip white with a violet stripe, and a white line in each petal. Anticles is also a fine red with a purple tinge, maroon flake, and a violet stripe in the lower divisions.

DESTROYING WASPS.

In the answers to correspondents in your last, you inform us that "G. W. H." recommends boiling water to be poured into the nest; "but," you add, "the nest and its entrance must be peculiarly situated." Not so, I can assure you: I have now practised this method for upwards of forty years, sometimes destroying several nests the same season, and the only peculiarity of situation I have ever met with was one into which I could not pour water, being in a hollow tree, and the entrance quite at the bottom. Some boys, however, more clever than I, lighted a fire in the entrance, and destroyed both the nest and the tree.—OCTOGENARIUS.

[Your statement corroborates our observation, and boiling water is not readily obtainable when the nest is far from a house. We have published so many efficient and portable remedies that they meet all contingencies.—EDS.]

CALIFORNIAN FRUIT.

Any industrious person who has the right kind of Grapes can make raisins; and raisin-making, which in 1871 had still a very uncertain future in this State, may now safely be called one of the established and most promising industries here.

In 1872 I ate excellent raisins in Los Angeles, and tolerable ones in Visalia; but they sell very commonly in the shops what they call "dried Grapes," which are not raisins at all, but damp, sticky, disagreeable things, not good even in puddings. This year, however, I have seen in several places good native raisins; and the head of the largest fruit-importing house in San Francisco told me that one raisin-maker last fall sold the whole of his crop there at \$2 per box of 25 lbs., Malagas of the same quality bringing at the same time but \$2.37½. There is a market for all well-made raisins that can be produced in the State, he said, and they are preferred to the foreign product.

At Folsom, Mr. Bugby told me he had made last year 1700 boxes of raisins, and he was satisfied with the pecuniary return; and I judge from the testimony of different persons that at 7 cents per pound raisins will pay the farmer very well. The Malaga and the White Muscat are the Grapes which appear here to make the best raisins. Nobody has yet tried the Seedless Sultan, which, however, bears well here, and would make, I should think, an excellent cooking raisin.

For making raisins they wait until the Grape is fully ripe, and then carefully cut off the bunches, and lay them either on a hard clay floor, formed in the open air, or on brown paper laid between the Vine rows. They do not trim out poor Grapes from the bunches, because, as they assert, there are none; but I expect this will have to be done for the very finest raisins, such as would tempt a reluctant buyer. The bunches

require from eighteen to twenty-four days of exposure in the sun to be cured. During that time they are gently turned from time to time, and such as are earliest cured are at once removed to a raisin house.

This is fitted with shelves, on which the raisins are laid about a foot thick, and here they are allowed to sweat a little. If they sweat too much the sugar candies on the outside, and this deteriorates the quality of the raisin. It is an object to keep the bloom on the berries. They are kept in the raisin house, I was told, five or six weeks, when they are dry enough to box. It is as yet customary to put them in 25-lb. boxes, but, no doubt, as more experience is gained, farmers will contrive other parcels. Chinese do all the work in raisin-making, and are paid \$1 a-day, they supplying themselves with food. There is no rain during the raisin-making season, and, consequently, the whole outdoor work may be done securely as well as cheaply.

Enormous quantities of fruit are now put up in tin cans in this State; and you will be surprised, perhaps—as I was the other day—to hear of an orchard of Peaches and Apricot trees, which bears this year (1873) its first full crop, and for one hundred acres of which the owners have received \$10,000 cash, gold, selling the fruit on the trees without risk of ripening or trouble of picking.

Yet Peaches and Apricots are not the most profitable fruits in this State, for the Cherry—the most delicious Cherries in the world grow here—is worth even more; and I suspect that the few farmers who have orchards of Plums, and carefully dry the fruit, make as much money as the Cherry owners. There has sprung up a very lively demand for Californian dried Plums. They bring from 20 to 22 cents per pound at wholesale in San Francisco, and even as high as 30 cents for the best quality.

The Plum bears heavily and constantly north of Sacramento, and does not suffer from the Curculio, and the dried fruit is delicious and wholesome.

Some day the farmers, who are now experimenting with Figs, will, I do not doubt, produce also a marketable dried Fig in large quantities. At San Francisco in October, 1873, I found in the shops delicious dried Figs, but not in great quantities, nor so thoroughly dried as to bear shipment to a distance. The tree flourishes in almost all parts of the State. Usually it bears two, and often three crops a-year, and it grows into a noble and stately tree.

I am told that when Smyrna Figs sell for 20 to 30 cents per pound, Californian Figs bring but from 5 to 10 cents. The tree comes into full bearing, where its location is favourable, in its third or fourth year; and ought to yield then about 60 lbs. of dried Figs. I suspect the cost of labour will control the drying of Figs, for they must be picked by hand. If they fall to the ground they are easily bruised, and the bruised parts turn sour.

They are dried in the shade, and on straw, which lets the air get to every part. Irrigation is not good after the tree bears, as the Figs do not dry so readily. Birds and ants are fond of the fruit; and in one place I was told the birds took almost the whole of the first crop. There are many varieties of the Fig grown in this state, but the White Smyrna is, I believe, thought to be the best for market.—(Nordhoff's Northern California.)

GINGER (ZINGIBER OFFICINALE).

This popular aromatic, Ginger, is a native of the East Indies, and was described by Gerard in his "Herbal," in 1597. His notice of it deserves to be published without abridgement.

"Ginger is most impatient of the coldness of these our northerne regions, as my selfe have found by proofe, for that there have bene brought unto me at severall times sundry plants thereof, fresh, Greene, and full of juyce, as well from the West Indies, as from Barbary and other places; which have sprouted and budded forth Greene leaves in my garden in the heate of summer, but as soone as it hath bene but touched with the first sharp blast of winter, it hath presently perished both blade and root. The true forme or picture hath not before this time bene set forth by any that hath written; but the world hath bene deceived by a counterfeit figure, which the reuerend and learned herbarist Matthias Lobell did set forth in his observations. The forme whereof notwithstanding I have here expressed, with the true and vnderbitten picture also, which I received from Lobelius his owne hands at the impression hereof. The cause of whose former error, as also the meanes

whereby he got his knowledge of the true Ginger, may appeare by his owne words sent vnto me in Latine, which I haue here inserted. His words are these:

“How hard and vncertaine it is to describe in words the true proportion of plants (hauing no other guide than skilfull, but yet deceitfull formes of them, sent from friends or other meanes), they best do know who haue deepest waded in this sea of simples. About thirty yeares past or more, an honest and expert Apothecarie William Dries, to satisfie my desire, sent me from Antwerpe to London the picture of Ginger, which he held to be truly and liuely drawn: I my selfe gaue him credit easily, because I was not ignorant, that there had bin often Ginger roots brought greene, new, and full of juice, from the Indies to Antwerpe; and further, that the same had budded and growne in the said Dries garden. But not many yeares after, I perceiued that the picture which was sent me by my friend was a counterfeit, and before that time had been drawne and set forth by an old Dutch Herbarist. Therefore not suffering this error any further to spread abroad, (which I discoered not many yeares past at Flushing in Zeeland, in the garden of William of Nassau Prince of Orange, of famous memorie, through the means of a worthy person, if my memorie faile me not, called Vander Mill; at what time he opened, and loosed his first young buds and shoots about the end of sommer, resembling in leanes, and stalkes of a foot high, the young and tendershoots of the common Reed, called *Harundo vallatoria*), I thought it convenient to impart thus much vnto Master John Gerard, an expert Herbarist, and Master of happy successe in surgerie, to the end he might let posteritie know thus much, in the painefull and long laboured

trauels which now he hath in hand, to the great good and benefit of his countrey. The plant it selfe brought me to Middleborough, and set in my garden, perished through the hardnesse of the winter. Thus much haue I set downe, truly translated out of his owne words in Latine; though too fauourably by him done to the commendation of my meane skill.”

The spice was known, however, more than two centuries before Gerard's time, for in Rymer's "*Fœdera*" there is a notice of a Genoese ship being wrecked at Dunster, in Somersetshire, some time during 1380, freighted with Green Ginger—that is, Ginger preserved in lemon juice.

It was first successfully cultivated in this country by Mr. Miller in 1731.

It may be easily cultivated two ways, either in pots or in a deep pit. If in pots the plants should be procured in February, or even July if you have a stove to keep them in through the winter; take the plants, shake them out of the pots when at rest in February, divide them, and pot each piece into a pot 6 ins. across; plunge them, as soon as the heat is temperate, in a bark pit, or a frame heated with dung like a Cucumber bed, the surface being covered with tan deep enough for the pots. As soon as the plants come up give a small supply of water, gradually increasing the quantity as the plants advance in growth. By August they will be fit to take up and preserve.

If a large quantity is required a deep pit of two or three lights will be necessary, the bottom to be filled with rich soil to the depth of a foot; plant the roots in this soil and line the pit with hot dung, renewing it as the heat declines. The time for planting in the pit is February or March. Water whilst growing, give air in hot weather, and in September you will have a large supply of fine Ginger roots, equal to foreign.



Fig. 66.—GINGER (*ZINGIBER OFFICINALE*).

Mr. Fish grew it in a greenhouse as he described to us as follows:—"The roots, in winter, may be kept anywhere dry, where they will be free from frost. When started in spring, by the roots being divided into as many small pieces as they have buds, they must be excited into growth by heat; water freely given as the shoots lengthen and flourish; and the heat of a hotbed, or a plant stove, given until towards autumn; when, as the shoots begin to change from green, less and less water must be given until the shoots ripen; and shortly after, the roots will be fit for preserving, or for keeping dry over the winter, where no frost will reach them."

To preserve the roots as a confection, put some of the youngest and most tender races of ginger, which should also be free from knots, into a china bowl, cover them with water, and let them soak twelve days, stirring them two or three times a-day during that time, and then boiling them until tender. Let a syrup be made of a pound of sifted loaf sugar to every pint of water, to which some lemon-peel and cinnamon should be added. Boil this syrup, skim, and when it has boiled half an hour put in the ginger, and boil all together for another half an hour. Pour the ginger and syrup together into a china bowl or vessel, and let it stand closely covered until the next day, when it should be boiled another half hour, and the same be repeated daily until the syrup is clear, and remains attached to the spoon, when it may be put into a jar, and when cold be tied closely down. Some use equal parts of raisin wine and vinegar, instead of water, for soaking and boiling the ginger.

ROSE-GROWING AND ROSE-SHOWING.

Now that the season of removal is drawing near, many will, no doubt, be thinking about adding to or replenishing their collections of the queen of flowers. To such it is a matter worth considering whether they draw their supplies from a stock in the cultivation of which the chief object aimed at has been the production of large flowers—calculated to carry off at various Rose shows so many first prizes and "astonish the natives"—with the usual concomitant of coarse and unripened wood, brought about by the excessive stimulation attendant on the system of cultivation; or, on the other hand, whether they invest in good sound plants of healthy and moderate growth, and well-ripened wood, likely to produce a pleasing feature by their forms and flowers. Truly a collection of Roses in good health and in their floral array is a "thing of beauty and a joy for ever." It behoves Rose-growers to be on their guard, and studiously to avoid overgrown and overdone plants as may have been cultivated principally with the object of producing bloom for exhibition. Such never succeed so well, when removed, as plants of moderate growth. Their constitution has been undermined, probably, for them to make headway in a new, and in all probability, rougher sphere of life; for ninety-nine people out of a hundred have neither the inclination nor power to pet and pamper their favourites to such an extreme.

In the matter of varieties the same argument holds good. In an establishment where showing for competition is the ruling passion, what can be expected but that the varieties suited for exhibition purposes are grown in larger quantities than, and to the partial neglect of, such as will not reach that standard of supposed excellence? And it must be remembered that many of the best exhibition varieties are very unlikely to further the general objects in view in Rose-growing—namely, abundance and continuation of beautiful Roses. Such varieties, for example, as Etienne Levet, Louis Van Houtte, Marquise de Mortemart, Monsieur Noman, &c., although first-class exhibition varieties, would almost invariably give dissatisfaction to the general Rose lover, producing, it is true, beautiful blooms, but few in number and far between.

However, it is not my wish to depreciate Rose-showing, and industry and perseverance—qualities absolutely indispensable to the Rose exhibitor—must and always will have their due recognition and reward. But to suppose that a man who takes more first prizes than his colleagues must necessarily be able to surpass them in the quality and quantity of his plants is fallacious. What are the small quantities of Roses exhibited at even our largest shows? No one can judge from them concerning the resources of the exhibitors. One merely sees evidence of skill in the production of a few choice blooms. Were our Rose shows conducted on a different principle, large breadths and masses of flowers being substituted for the small collections we are now accustomed to see, the inferences drawn

from them would be different, although not entirely changed. This, however, brings me to the subject of "Rose-show reform," on which I have no desire to enter at present. My object is to warn purchasers that, for the general purposes of Rose-growing, visits to the Rose shows for selecting varieties mislead, because the specimens there seen have been grown by a costly and troublesome system to an unusual pitch of size, which the general cultivator, without special knowledge and a large expenditure of money, will in vain strive to emulate, and disappointment ensues. Let him see his varieties in bloom in their natural state, and in procuring plants let him be careful to avoid such as have been overgrown.—ARTHUR W. PAUL, *Paul's Nurseries, Waltham Cross, Herts.*

NOTES AND GLEANINGS.

DR. HOOKER, at the meeting of the British Association, made the following notice of the CARNIVOROUS POWERS OF THE VENUS'S FLY-TRAP (*Dionæa muscipula*):—"About 1769 a well-known English naturalist sent to Linnæus a drawing of a plant, to which he gave the poetical name of *Dionæa*. He said, 'The plant shows that Nature may have some views towards its nourishment in forming the upper joint of its leaf like a machine to catch food. Upon the middle of this lies the bait for the unhappy insect that becomes its prey. Many minute red glands that cover the surface, and which perhaps discharge sweet liquor, tempt the poor animal to taste them, and the instant these tender parts are irritated by the feet the two lobes rise up, grasp it fast, lock the rows of spines together, and squeeze it to death.' Linnæus only saw in these wonderful actions an extreme case of sensitiveness in the leaves, which caused them to fold up when irritated, just as the Sensitive Plant does, and he consequently regarded the capture of the disturbing insect as something merely accidental, and of no importance to the plant. He was, however, too sagacious to accept Ellis's sensational account of the *coup de grace* which the insect received from the three stiff hairs in the centre of each lobe of the leaf. For another generation the history of this wonderful plant stood still; but in 1868 an American botanist (Mr. Cranby), who is still happily engaged in botanical research, was staying in the *Dionæa* district, studying the habits of the plant pretty carefully, especially the points which Dr. Curtis had made out. His first idea was that the leaf had the power of dissolving animal matter, which was then allowed to flow along the somewhat trough-like petiole to the root, thus furnishing the plant with highly nitrogenous food. By feeding the leaves with small pieces of beef he found, however, that these were completely dissolved and absorbed, the leaf opening again with a dry surface, and ready for another meal, though with an appetite somewhat jaded. He found that cheese disagreed horribly with the leaves, turning them black, and finally killing them. Finally, he details the useless struggles of curculio to escape, as thoroughly establishing the fact that the fluid already mentioned is actually secreted, and is not the result of the decomposition of the substance which the leaf has seized."

—NOTWITHSTANDING the favourable report recently made by M. Dumas on the efficacy of some of the means employed for the destruction of THE PHYLOXERA of the vineyards of France, its ravages continue so alarming that the National Assembly has voted the sum of £12,000 as a prize for the inventor of an effectual destructive procedure.

—THE *New York Tribune* says that few of those who enjoy the flavour of THE PEACH are aware of the labour and excitement attending the work of bringing the fruit to the New York market. As it is necessary that the supply for the wholesale dealers should be on hand in time for the grocers and other retailers to purchase them with the usual market produce, a large portion of the night has to be employed; otherwise, when the fruit reaches the hands of the consignees it will be left on hand, at the risk of suffering great damage through the rot, and thereby becoming a total loss. The Peach trucks are fitted up with rails along the sides, and after one layer of baskets has been placed on the bottom of the waggon moveable boards form a second floor, upon which are deposited another layer; while a third row gives flooring for the upper tier. In this manner from 150 to 180 baskets are loaded on a long two-horse truck without damage to the fruit.

The cars for Peaches are usually chartered for the season, and are specially fitted-up for the business. Racks are made

and fitted so as to support moveable shelves, and the baskets are thus placed in four tiers. A grated door on either side admits the air, and keeps the fruit cool. A carload is generally consigned, as a whole, to one person, and on its arrival at Jersey City is taken possession of by the representative of the firm, who relieves the railroad company of any further responsibility. A few market cars, called "pot cheese," are made up by the railroad company to carry small lots, and the consignees in these cases always give receipts for the fruit on delivery, a clerk taking charge of the cars when they reach the destination. None of the railroad officials are required to unload the chartered cars, consequently the work has to be done by *employés* of the consignees, and the number of men required for the transportation of the fruit from the railroad to market is therefore very large. A train of twenty-four cars arrived; and as each carload averages 500 baskets, and the largest two-horse trucks would only carry from 150 to 180 baskets, and the one-horse trucks less than 100, the large number of waggons necessary for the removal of the 27,000 baskets and crates may be easily calculated. Each basket contains about 200 Peaches, making the arrival by one train of over 5,000,000 of Peaches.

— We are pleased to find that the ULVERSTON HORTICULTURAL SHOW, on the 25th ult., was very successful in every respect.

FLOWERS FOR OUR BORDERS.—No. 39.

GENTIANA BAVARICA.—BAVARIAN GENTIAN.

THE Gentians are impatient of stagnant moisture, especially in winter, and they suffer from full exposure to the mid-day sun during the hottest months of the year; it is probable that inattention to these points is the chief cause of failure in their cultivation, and of their consequent rarity in our gardens.



Fig. 67.—*Gentiana bavarica*.

With regard to soil they are by no means so particular as is commonly supposed. They will thrive in peat; in a mixture of peat and loam; and also in friable loam containing a little sand. Rich highly-manured soil is objectionable, and in wet adhesive loams they will live but a short time; but in either case it will only be necessary to supply a small quantity of the compost of peat and sandy loam, with drainage beneath it, in order to place the plants in the condition requisite to ensure success.

The plants should be screened from the sun during the

hottest part of the day, only the morning and evening rays being allowed to reach them, especially in dry arid soils; but the situation should be as light and airy as possible—they will neither bear to be smothered by other plants, nor endure the drip of trees. During long-continued rains in autumn and winter it will be a good plan to cover the clumps with a large pot, as they are more impatient of wet than cold; but they should not be kept covered longer than is necessary.—(W. Thompson's *English Flower Garden*, Revised by the Author.)

BEDDING PLANTS IN THE LONDON PARKS.

HYDE PARK.—No. 1.

THE public are now pretty generally aware that Mr. Gibson, the much-respected Superintendent of Hyde Park, has been suffering for some months from paralysis, which has prevented his continuing this summer that direct personal supervision of the bedding arrangements which was his wont. Fortunately his son, Mr. John Gibson, jun., well known as a skilful and rising landscape gardener, was at hand to give the active and efficient help in carrying on the work which the nature of his father's illness rendered necessary, and in this he was ably seconded by Mr. Cole and Mr. Chamberlain in their respective departments. The planting-out of 300,000 bedding plants is a heavy task of itself, not to speak of the forethought required to arrange them tastefully and effectively in manifold combinations, all of which, however, are the subjects of anxious consideration long beforehand; but excellently the bedding has been carried out, and grand is its effect, especially the long stretch of beds between the Marble Arch and Hyde Park Corner.

Starting from the former point we come to a series of circles all margined with Golden Chickweed and edged with *Alternanthera amœna*, the centre being filled up with *Geraniums*, many of which, however, are seen to better advantage further on, where the beds are less shaded by trees. The best here are Fire King (Lee), a fine magenta crimson Nosegay, which is also good everywhere else; Waltham Seedling (W. Paul), dark crimson, and Bonfire (W. Paul), crimson scarlet, forming a splendid mass of bloom. It has been largely used this year in the parks, and it has proved itself throughout brilliant in colour, profuse in blooming, one of the best of bedding zonals. Rose Bradwardine (Pearson), though better further on, is nevertheless notable for its beautiful shade of rose. Daybreak *Geranium*, white-edged, interspersed with Purple Queen Verbena, and *Atalanta* similarly mixed, form elegant circles; and two others of Beauty of Calderdale are also noteworthy.

We now reach Green Street Gate, from which point *Geraniums* and *Ageratums* mixed fringe the shrubbery border at the back. The beds in this series are oblongs and circles, the margin and edging of these on the right-hand side being respectively *Mesembryanthemum cordifolium variegatum* and, for the most part, *Lobelia Mazarine Gem*, a deep blue variety with a profusion of small flowers; while on the left the margin is *Gnaphalium lanatum*, with an edging of *Alternanthera magnifica*. Among the *Geraniums* filling the centres of the beds *Lacius* still holds its place as one of the best large-trussing rose scarlets; Mrs. Mellows, crimson, one of Mr. Pearson's raising, forms a very good bed; but Corsair, which we owe to the same source, is still more striking, the bed of this being the finest in the series. Madame D. Bertrand, cherry pink, is free-flowering and of dwarf habit; while Cleopatra, although here not so good as elsewhere in consequence of the trees, throws Christine entirely into the shade, being of a deeper colour, and the flowers while lacking the white eye of Christine, also seem to be more persistent. Mrs. Saunders deserves notice as one of the best of crimsons, and the Rev. J. Dix as a scarlet. The oval at the end of this series of beds is effectively filled with Mrs. Pollock *Geranium*, intermixed with Blue Stone *Lobelia*, a beautiful dark blue, with a very small white eye.

Proceeding on from Brook Street Gate we find a series of oblongs and circles margined with alternate plants of *Alyssum variegatum* and *Lobelia Mazarine Gem*, whilst the edging is *Alternanthera paronychioides major*. Fire King *Geranium* is here very fine, also beds of Golden Fleece, Queen of Queens, Sportsman Verbena, with *Centaurea candidissima* and *Coleus Verschaffelti* dotted with *Abutilon Thompsoni*. F. Bradley *Geranium* is noticeable as a fine crimson, but the bed presented far too much foliage in proportion to the amount of bloom. Briton is also good.

From Grosvenor Gate, which we now arrive at, extends a splendid series of beds in a single row next Park Lane, and in

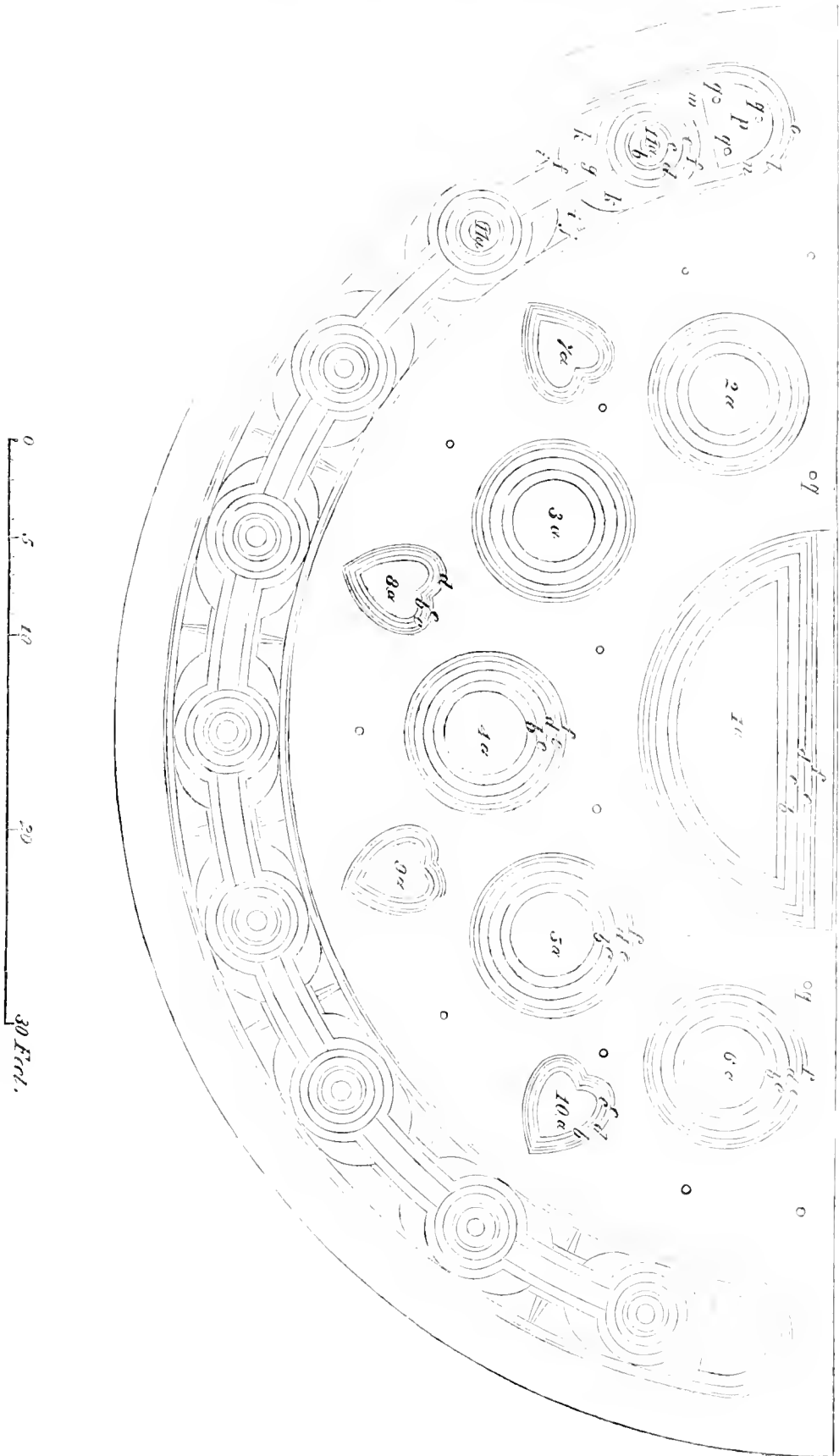


FIG. 68.—CARPET BEDDING IN FRONT OF MR. CHAMBERLAIN'S LODGE.

a double row on the turf between the walk and the park. The oblong beds on the left have a margin of *Veronica incana*, within which is an edging of *Alternanthera magnifica*, with an inner row of *Sportsman Verbena*, rosy purple. We must not, however, before going further, omit noticing a magnificent scroll bed of *Bonfire Geranium*. Other very effective beds are *Coleus Verschaffelti* dotted with *Abutilon niveum aureum marmoratum*, more beautifully marbled than *Thompsoni*, and with a richer golden tinge; *Geranium Perilla* surrounded with *Golden Fleecy*; *Murillo*, small-flowered, but a fine bedder; and *Florence Duraud* (Pearson), lilac pink, a splendid bed. Having now reached Mount Street Gate it is necessary to turn backwards towards the Marble Arch to examine the beds on the park side, and which are all oblongs, with the exception of the heart-shaped beds at the ends, and four of a smaller shape surrounding the *Rhododendron* clump in the centre. The heart beds are margined with *Achillea umbellata*, a very neat little plant for the purpose, edged with *Alternanthera amena*, and filled with *Daybreak* silver-edged *Geranium*. The oblongs, which are in match pairs, present a margin of *Echeveria secunda glauca*, with an edging of *Mesembryanthemum cordifolium variegatum*, and an inner row of *Iresine Lindeni*, which has an excellent effect. The interior of the blocks is variously filled with *Geraniums* with white, pink, and scarlet flowers, or variegated foliage, and the whole arrangement harmonises well, and is brilliant without being glaring. The silver-edged and golden *Geraniums* give a soft tone which is very pleasing. Beds of *Geraniums* *Bonfire*, *Fire King*, and *William Thompson* are remarkable for the splendid mass of bloom which they offer to the eye. The last is a very fine rosy crimson with a magenta tinge. *Pink Nosegay* is worthless here; and *Jean Sisley*, beautiful as it is in form and colour, drops its petals so fast that another year it will not be used. *Vesuvius* is still good, but will have to give way before newer kinds for bedding display; still it can scarcely be surpassed for continuity of flowering. *La Vestale*, white, appears to be more free-blooming than *Madame Vaucher*; and we must not forget *Pioneer*, which is a splendid purplish magenta crimson, which must become popular, and it is stated to be a free bloomer in winter as well as in summer, and that it is the latter there can be no doubt. The heart beds in the centre are filled with *Daybreak Geranium* mixed with *Lobelia Charming*, and that at the end with *Little Golden Christine Geranium*.

From Mount Street to South Street Gate the beds next Park Lane have a margin of *Santolina incana*, and an edging of *Lantana Sellowii*. The best of the beds are those of *Geraniums* *Lucius*; *Cybiaster*, too tall, but in fine bloom; *Perilla*; *Gaines' Dwarf Calceolaria*, which would have been very good had not many of the plants been stolen; and *Coleus refulgens* dotted with *Abutilon*. Turning backwards, the large oblongs as far as the Elm tree are all margined with *Echeveria secunda glauca*, and edged with *Lobelia Blue King* and *Dactylis glomerata* variegata alternately. The *Lobelia* gives colour, the *Grass* elegance, and the combination of the two is peculiarly pleasing. There is, besides, an inner row of *Alternanthera amabilis latifolia*, which, though strong-growing, is not sufficiently so for the edging. *Waltham Seedling Geranium*, two beds of *Lady Plymouth Geranium* surrounded with *Purple Queen Verbena*, and *Coleus Verschaffelti* dotted with *Abutilon* and surrounded with *Centaurea*, are the chief of this series. The circles round the Oak trees are filled with variegated and bronze-leaved *Geraniums*. From the Elm tree to Mount Street Gate there are eight oblongs in pairs, with two heart-shaped beds at the ends, the margin in all cases being *Mesembryanthemum in-claudens*, and the edging *Alternanthera magnifica*, with an inner row of *Robert Fish* golden-leaved *Geranium*. The centres of the oblongs are filled with *Coleus Verschaffelti Improved*, dotted with *Abutilon*; *Cleopatra* and *White Clipper Geraniums*, &c.

From South Street to Stanhope Gate, on the right the circles round the trees are filled with *Alternanthera amabilis latifolia* surrounded with *Blue King Lobelia*; while the oblongs are margined with *Echeveria secunda glauca*, and have an edging of *Blue King Lobelia* and *Dactylis glomerata* planted alternately, with an inner row of *Alternanthera*. The beds on the left-hand side of the walk next Park Lane are surrounded with *Golden Feather Pyrethrum*, within which is a row of *Iresine Lindeni*. In the central portions of the beds are *Geraniums* *Lord Palmerston* and bronze *Mrs. John Lee*, very effective; *Glow*, fine; *Queen of Queens* mixed with *Viola cornuta*; *Wellington*, fine dark crimson; *Lucius*; *Warrior*, good bright

scarlet, but of very strong growth; *Bonfire*; *Amaranth* (Pearson), beautiful purplish rose, magnificent; *Mrs. Pollock* mixed with *Viola Perfection*, *Duchess of Sutherland* (this is the bed that was pillaged some time ago), and *Stella variegata* mixed with *Lobelia Blue King*, forming a beautiful combination. In other beds are *Coleus Verschaffelti* and *Abutilon* mixed, *Calceolarias*, *Heliotrope Jean d'Amour*, and bronze *Geraniums*.

Instead of turning along Rotten Row, where the bedding is of the subtropical character, we will now cross the park to Mr. Chamberlain's lodge, where there is one of the grandest examples of carpet bedding we have ever seen carried out. Upwards of ten thousand plants are employed; they are as a whole exquisitely arranged, and the effect is superb. The accompanying engraving (fig. 68), represents the disposition of the beds, of which the planting is as follows:—

Bed 1.—*a*, *Scarlet Geranium Shakespeare*; *b*, *Golden and brown-leaved Geranium Luna*; *c*, *Alternanthera amena*, dark crimson; *d*, *Lobelia Erinus speciosa*, dark blue with white eye; *e*, *Stellaria graminea aurea*, yellow leaves; *f*, *Echeveria secunda glauca*.

Bed 2.—*a*, *Pink Geranium Rose Bradwardine*, mixed with *Viola Perfection*, bluish purple; *b*, *Silver-edged Geranium Daybreak*; *c*, *d*, *e*, and *f* as in 1.

Bed 3.—*a*, *Silver-edged Geranium Queen of Queens*, mixed with *Viola Perfection*; *b*, *Golden-leaved Geranium Golden Fleecy*; *c*, *d*, *e*, and *f* as in 1.

Bed 4.—*a*, *Coleus Verschaffelti splendens*, brighter crimson than *C. Verschaffelti*; *b*, *Centaurea ragusina*; *c*, *d*, *e*, and *f* like 1.

Bed 5.—Same as 3.

Bed 6.—*a*, *Pink Geranium Master Christine*, mixed with *Viola Perfection*; *b*, *c*, *d*, *e*, and *f* like 2.

Bed 7.—*a*, *Golden Tricolor Geranium Jetty Lacy*, mixed with *Lobelia White Perfection*; *b*, *Alternanthera versicolor*; *c*, *Lobelia pumila grandiflora*, light blue; *d*, *Lysimachia Nummularia*, golden-leaved; *e*, *Echeveria secunda glauca*.

Beds 8 and 9.—*a*, *Silver Tricolor Geranium Lass o'Gowrie*, mixed with *Lobelia pumila flore-pleno*; *b*, *c*, *d*, and *e* like 7.

Bed 10.—*a*, *Golden Tricolor Geranium Sophia Dmuresque*, mixed with *Lobelia White Perfection*; *b*, *c*, *d*, and *e* like 7.

Bed 11.—*a*, A single plant of *Centaurea ragusina* on a bottom of *Kleinia repens*; *b* and *h*, *Lobelia Lustrous*, dark blue with white eye; *c*, *Leucophyton Brownii*, silvery-foliaged; *d* and *f*, *Alternanthera amena*; *e* and *i*, *Pyrethrum Golden Feather*; *g*, *Cineraria maritima compacta*; *j*, *Cotyledon bracteatum*, silvery-leaved succulent plant; *k* and *n*, *Alternanthera paronychioides* major, with salmon-coloured leaves; *l*, *Mesembryanthemum cordifolium variegatum*; *m*, *Santolina incana*, silvery-foliaged; *o*, *Echeveria secunda glauca*; *p*, *Mixed foliage plants*, amongst them three *Dracena australis*.

The single ornamental plants are *g*, *Dracena australis*; the others, denoted by the circles, are young *Palms* of various species.

N.B.—The engraver has omitted the references to the rings in beds 2, 3, 7, and 9, but they follow in the same order as in the other central beds.

MAIDENHAIR FERN WITH FLOWERS.—“A SUBSCRIBER” seeing it mentioned in page 190 of the Journal that Maidenhair Fern does not live well in water with flowers, thinks it may not be generally known if, directly the fronds are cut, they are submerged for an hour in water they last a long time. “A SUBSCRIBER” has made them in this way live for four nights on a dinner-table when the flowers arranged with them have had to be renewed.

NOTES ON VILLA AND SUBURBAN GARDENING.

THE CONSERVATORY AND GREENHOUSE.—The fact that there are thousands of little structures of this kind attached to the gardens of town residences in almost all parts of the country and perhaps as many others springing-up, shows how deeply rooted is the love for gardening in the minds of the well-to-do class of the community. To many their greenhouse is the only source of pleasure, and the work attached to the growing of plants for its decoration is a chosen means of recreation to most of those who are closely confined to business during the day. With a view, therefore, of giving a little assistance where it is needed, I will devote this paper to a few remarks on the cultivation of many of the most suitable plants for the decoration of the greenhouse and conservatory during the approaching winter months.

The successful flowering of most plants in winter depends upon the preparation they receive, and I shall presume that in

most cases this has been begun. I allude to such plants as *Cinerarias*, *Primulas*, and *Mignonette*, the seed of which should have been sown in June and July, and the plants well a-head. The first-named will thrive when potted in two-thirds light fibrous loam and one-third leaf mould and silver sand, and if it is to be obtained, a double-handful of finely-sifted cow manure well rotted may be supplied in addition, but this must not be used with the soil for plants in a very young state, but only for those which are strong and healthy. For the present these plants may stand out of doors in a shady corner and be carefully watered—that is, no plant must be watered without first proving that it is in want of moisture, either by tapping the pot with the finger or by weighing it in the hand. In potting a few dozens of plants it will be observed that some are already wet enough and others not sufficiently so; now these ought to be watered before potting, because the operation, performed as skilfully as it may be, is a check upon the plant for a time, and if it is watered before potting, water should not be applied immediately afterwards, but the test-rule as above described should be adopted. This applies to nearly all softwooded plants, and therefore in the present paper need not be again mentioned.

The *Cineraria* has its enemies; the chief of these is green fly, which may be destroyed by removing the plants affected to a frame and fumigating with tobacco smoke. The *Primula* does well in a very similar soil to that needful for the *Cineraria*, except that there should be the addition of one-fourth peat. These plants will require the protection of a cool frame for their growth, and should not be shaded if strong and healthy, but if weak only slightly so. As to *Mignonette*, it is generally sown in pots where it is to flower, and when up the plants are thinned-out to from five to ten in a pot, and afterwards top-dressed with decayed manure, and the pots plunged in ashes or tan out of doors where no violent winds can reach them. No other protection need be given just now. As the plants grow it will be seen that their inclination is to ramble over the sides of the pot, which entirely spoils them for in-door or window decoration. This may be prevented by placing four small sticks round the inside of the pot, and connecting them by a piece of matting, which keeps the plants in their places. All side shoots should be pinched off, allowing only one—the largest shoot, to remain, which will in turn form a grand spike of bloom. If it should be necessary to remove them to a frame, they must be placed near the glass and have a free circulation of air at all times.

The next most useful plant is the herbaceous *Calceolaria*, and although it is a spring-flowering plant, yet it is indispensable for the conservatory, and at present I will only refer to it, as it is time the seed were sown, and the mode of doing this I will refer to in detail. First select a shady corner, and place a hand-light there on a few inches of coal ashes, also place inside 3 or 4 inches thick of ashes mixed with lime in order to kill any small slugs. Now procure a pot or a pan of small size, drain it well, at least one-third full; cover this with moss, or, what is better, rough pieces of turf, and fill to within an inch of the rim with finely-sifted sandy soil, composed of loam and leaf mould well rotted; press this down firmly and evenly, water the whole so as to soak through the soil, then sow the seeds evenly over the surface; as they are so very small this must be done with great care. Over them give a very slight sprinkling of silver sand, and again press the soil with some smooth surface, which fastens them in the soil, and place a pane of glass over the pot. Now take a pan which holds water and fill it half full, place it in the hand-light, turn a small pot bottom upwards on it, stand the seed-pan upon this, and put on the top of the light, keeping it close till the seedlings are up. They should not require water in this position until germination has taken place. When the little plants appear place a stone under the glass over the pot to give them air, and the same with the top of the light; as they get larger remove the glass on the pot altogether, and admit more air into the hand-light. Prick the plants off into pans or pots when large enough to handle comfortably, using the same sort of soil as for the seeds. Having now started the cultivator on the method of growing these lovely flowers, I will leave the subject, with the intention of again referring to it in subsequent papers.

The double as well as the Nosegay section of *Pelargoniums* are excellent autumn-blooming plants in the greenhouse. They ought to be potted-on from June in a good substantial loam and manure with a little sand added, and may be grown out of doors up to the middle or end of September. The ordinary treatment will prove successful. They must have all attention to watering and potting when they require it, receiving their last shift at the beginning of this month. All bloom buds to be kept picked off, and the plant framed-out by staking, and the shoots stopped when they need it to make them dwarf. The double sorts will not need stopping more than once, or if excessively vigorous not more than twice during the summer; but the others, which are faster-growing sorts, may need it once or twice more, the last stopping not later than the middle of

August. When the weather becomes cold they may be placed in a frame for a fortnight, and then removed to the greenhouse or conservatory, where they may be allowed to flower, and if the house is free from damp and moderately warm they will last in bloom a long time.

The *Fuchsia*, too, is an excellent autumn and early winter-blooming plant when grown in young and small plants. Strike them in April, and pot them on as for *Pelargoniums*, but they must be grown in the greenhouse or a frame; the latter structure is the better for the summer growth. The pyramid form is the best to show off these plants to advantage; therefore, as soon as they begin to grow after the first potting they must be staked, and as they advance in growth the shoots must be regularly stopped at every two or three joints by taking-out the point of the shoot; the centre one as well, but not so severely as to prevent the plant forming a leader. The plants thrive in a soil of two parts loam, one part well-rotted manure, and one of leaf mould. Give them their final shift in August, and transfer them to the greenhouse. During their season of growth they ought to be frequently sprinkled or syringed overhead with water; this, with an intermediate temperature in almost any structure, will grow them well. All bloom buds must be picked off as soon as they are discovered, but they must not be stopped after the first week in September. During their growth turn the plants round at different times to prevent them becoming one-sided. They will bloom well until November. After this is over stand the plants away where they have the light, but protected from frost for a time, and in the winter they may be put into a shed, but where it is dry and airy. If they are taken care of, the plants will lay the foundation for some good specimens for summer flowering the next year. The above is a system only for autumn and winter blooming, as I have concluded that the greenhouse would not be at liberty to grow these plants till after the bulk of the bedding subjects are out of the way and spring-flowering plants done with.

The next plant to notice is the *Chrysanthemum*, which is purely autumn and winter-blooming; some of the Japanese varieties continuing to flower up to Christmas. The cuttings should be put in not later than March, and for a time grown-on as described for the *Fuchsia*—that is, in a cool frame until June comes in, when they may be hardened-off gradually, so as to be able to complete the rest of their growth outdoors. The same mixture of soil as for *Fuchsias* will suit the *Chrysanthemum*. For ordinary decoration they must be shifted frequently before they become pot-bound; this should not be allowed at any stage of their growth, as it hardens the wood and causes the leaves to fall off the bottom of the plant, which then looks badly. Stop the shoots at every two or three joints; determine the size of pot you intend to flower them in, and after a dwarf well-formed plant is secured put them into their pots, fill-up with soil, and peg the shoots down; and as they grow stop them again until about the middle of July, which must be the last time. As the shoots become long commence staking and tying, but always allow the shoots full liberty to grow. Plunge the pots after the last shift into old leaves, tan, or any other rubbish that will keep the pots moist and the sun from scorching the roots, which it will do if allowed to play upon the pots uninterruptedly. When established in the flowering-pots liquid manure must be given them twice a-week, about a pint to a gallon of water, and in the evenings of hot days sprinkle the foliage with water. This will greatly assist to keep a healthy foliage on the plants down to the edge of the pot. After they have set their flower buds they should be taken under cover and treated in an exactly similar manner, affording plenty of light and air, and thinning-out the smallest buds if too numerous; if every attention be paid to them I feel sure the plants will reward the grower with an abundance of finely-shaped flowers. I ought to mention that the Pompon varieties will not need so much stopping as the large-flowered sorts, being naturally of weaker growth and dwarfer in habit. As the system above described will grow the plants into large specimens, I would advise that only a few plants of each sort should be kept, and if these be managed well there will be much more pleasure derived from them than if many were grown and none of them well. In places with limited space the above rule will apply to everything grown for their decoration.—THOMAS RECORD.

DOINGS OF THE LAST AND PRESENT WEEKS.

HARDY FRUIT GARDEN.

Strawberries and *Raspberries* have required attention. Before planting-out the *Strawberry* plants, which had been layered in small pots, the leaves were washed in water in which soft soap and tobacco were dissolved; about 2 ozs. of soap and the same quantity of good tobacco will be sufficient for a gallon of water. If no red spider is to be found on the leaves, it is as well to dip them in this mixture as a precaution. On light soil especially this minute parasite is the desperate enemy of the *Strawberry*, and in all cases when dealing with the insect precautionary measures are infinitely better than any attempt to destroy the

pest after it has gained a foothold. The continued dry weather has been very favourable to its further development, and a few have been perceived on the young plants. Syringing them with soot water is beneficial to the plants and destructive to red spider. Hoed between the rows to destroy weeds. Stirring the surface is also beneficial to the plants in the earlier stages of their growth, causing them to grow freely; afterwards when they are well established, have grown to a considerable size, and the ground is consequently full of roots, these would be injured by hoeing or digging amongst them, so that it is better not to interfere with the surface, and any weeds that may have escaped the earlier operations of the Dutch hoe can be pulled out by hand. There seems to be considerable difference of opinion as to the best sorts to grow. The varieties raised by Dr. Roden—Early Prolific and Duke of Edinburgh, have been grown here; they had every justice done to them, but failing to give satisfaction were discarded. Black Prince is unquestionably the best early variety, and it is excellent for forcing. Next to it comes Keens' Seedling—this variety has often been condemned because those who disparaged it had not the true sort. Then President, Sir J. Paxton, British Queen, or, where the last-named fails, Mr. Radclyffe; Dr. Hogg, Cockscorn, which is very large, but bears a good crop of fine-flavoured fruit; La Constante; and for late use there is no better sort than Frogmore Late Pine. Let good healthy runners of the above sorts true to name be planted, and the result will be satisfactory. A new bed is planted every year and the old plants destroyed.

Hoeing the quarters of *Raspberries*, and tying up the young canes loosely in a position where the sun and air can act upon them. Raspberry plants do not require so much sunlight or air as most other fruit trees and bushes. In a wild state this fruit is found in damp ground and under the shade of trees; and perhaps the best-cultivated specimens we ever saw were of the Fastolf variety, which continued to bear enormously for successive seasons; the canes were planted in moist, rich, unctuous loam under a north wall, and not only had they the shade of a 12 or 14-foot wall, but Apple trees to a certain extent shaded them from the afternoon sun. As it is getting towards the season for planting, those interested should make a note of this, and plant in a shady part of the garden, trench deeply, and manure richly. Excellent varieties to plant are Fastolf, Carter's Prolific Yellow, and Red Antwerp.

FRUIT AND FORCING HOUSES.

Vineries.—It is better that the fruit be ripe before the month of August is over. Ours will not be so this year. Little or no artificial heat was applied after the Grapes were thinned, and as we ventilated freely, thinking to keep the red spider out of the houses, this accounts for the late ripening. The Muscat house is kept at 70°, and the Black Hamburg and Lady Downe's at 65° by night, with a proportionate rise in the day; the weather is also extremely favourable for the ripening of all sorts of fruit. Lateral growths had made much progress, and have been cut quite back where the houses were sufficiently shaded with leaves. Looked over the bunches, and cut out any shanked or small stoneless berries. Many persons find Royal Vineyard a bad setting variety; treated as we have previously recommended when the Vines are in flower, almost every berry sets. We never had it better than it is this year. The bunches are very large and the berries of fair size; if the house is kept dry the berries will also keep well.

Mushroom House.—Preparations should now be made to get a bed ready. Horse droppings should be gathered every morning until a sufficient quantity is obtained. Some persons are careful to remove nearly all the straw from the dung, but this is not desirable; a little straw with it is an improvement. The manure should be thrown up in a heap, and turned over once a day until the rank steam has been evolved, when it is ready to be made up into the beds. Recent experience would lead us to recommend that a third part of the manure for the bed be fresh cow dung. Tread the material in firmly, and allow it to remain until the heat has sufficiently subsided to allow of the bed being spawned. No bed ought to be without a thermometer to test the bottom heat; those with large experience may thrust a stick into the bed and be able to test it by hand, but this is at best very uncertain, as the hand is in itself much warmer at one time than it is at another. It is also as well to note that there is more danger to the spawn by over than by under heating. The spawn will not be injured if the temperature of the bed is not over 85°, and when the thermometer falls to this point the spawn may be inserted, and the surface of the bed covered to the depth of 2 inches with loam. Let the temperature of the house range as steadily as possible at from 55° to 60°. There ought also to be a moist atmosphere; in a parching atmosphere there will be neither quantity nor quality.

STOVE AND ORCHID HOUSES.

Climbers on the roof of the stove trained to trelliswork may be allowed to grow freely in summer and to shade the roof. Now we cut out all unnecessary wood, so that what is allowed to remain may ripen well from exposure, and most plants underneath are benefited by getting more light and air to fit them to stand

more sturdily the short dull days which are now rapidly approaching.

We have brought to a close all potting, with a few exceptions, and these only small plants which will be carefully potted, so that they may make all the growth possible during winter. There is, however, a certain risk in pushing plants forward during the winter months; growths formed at that time are seldom satisfactory, and it ought only to be done with small plants, and that in exceptional cases. Potted *Goodyera* and *Anacochilus*. These plants are unsurpassed for the beautiful markings on the neat, glossy, velvet-like leaves, and under proper management they are very easily grown. Anyone possessing an ordinary plant stove may grow them. Ours are grown in hand-lights under the Cucumbers, the broad leaves of which afford a little shade, but not enough in very hot sunshine; it is then necessary to throw some light shade over the plants, in addition to that afforded by the leaves overhead. The pots used must not be large, as the plants do not make much root. Begin by having in readiness a quantity of clean crocks of two sorts, a large size for the bottom, filling up the pot to three parts of its depth with finer drainage free from dust; over this place a little clean sphagnum, then the compost, which consists of equal parts of turfy peat, clean potsherds, and sphagnum chopped-up fine; in this place the plants. *Goodyera* should merely be pegged-down to the surface of the pot; the other species may be planted, but very shallow. Some moss encouraged to grow on the surface of the pot has a neat appearance, and if it is kept healthy by frequent dewings with the syringe the plants will do well. *Goodyera Dawsoniana* should be grown not only for its beautiful foliage, but it also flowers freely in winter; the flowers are borne on spikes, and are waxy white. *G. Ordiana* is very similar in habit, but the ground colour of the leaves is light green instead of reddish brown, as in *Dawsoniana*.

FLOWER GARDEN.

Tying and sticking the *Gladiolus*; removing all spikes from which the flowers have faded. Looking over beds of Zonal *Pelargoniums*, and picking withered trusses from the plants. *Centaureas* were put in a cold frame, and have been shaded from the sun. With very little air admitted they root freely.—J. DOUGLAS.

TO CORRESPONDENTS.

* * It is particularly requested that no communication be addressed *privately* to either of the Editors of this Journal. All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only.

We also request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

PROPAGATING AUBRIETIAS (Spring Garden).—No advantage will be gained by taking slips of *Aubrietias* now, as they will not have time to establish themselves sufficiently for autumn planting. If old plants are plentiful let them alone, and at planting time use good-sized root-divisions, not mere slips, and cover the ground at once when planting. Small slips put-in in quantity now, and remaining over next summer, will give an abundance for planting in the autumn of 1875 of nice, tufty, well-conditioned plants. For raising plants by the thousand there is no better plan than sowing seed in heat early in spring, the seedlings to be hardened-off and pricked-out, or sowing in the open ground in May and transplanting in nursery beds, there to remain until large enough for final planting.

PLANTING OUT STOCKS (Idem).—For a rich and massive bed of *Stocks*, stout and sturdy plants, made so by having been planted thinly in nursery beds in an open place, should be planted, as soon as the beds are cleared, just closely enough that the foliage of one plant touches that of its neighbour, but without any serious jostling or crowding. Whether the plants are large or small the rule equally applies. If there are surplus plants, they had better be lifted at the same time and planted in a more sheltered and especially in a drier place than where the bed may happen to be situated—that is, assuming there are not pits to winter a portion in pots plunged in ashes. A portion in the flowering beds may die off from inclement weather, especially if frost and melting snow alternate, and a reserve to draw from makes all right again. If there are no failures the close planting allows the singles to be drawn out as soon as they can be detected, leaving sufficient doubles to form a full bed. If towards autumn the plants grow very luxuriantly, it is advisable to give them a check by half lifting each with a spade three weeks before the time of final removal. The severing the main roots will check luxuriance and cause the emission of feeders ready to take hold of the soil at once in their permanent quarters. If the plants are only of moderate growth this semi-preparatory lifting is not necessary.

DIVIDING POLYANTHUS ROOTS (E. L.).—They and those of *Primroses* may be divided now.

FORCING LILY OF THE VALLEY (A Subscriber).—Take up the roots carefully, those with plump round crowns, and place them in pans or boxes, filling in the interstices with rich turfy loam made fine. Place them on a bed of leaves or dung with a bottom heat of 65°, let them remain there a fortnight

or three weeks, then put on the lights of the frame, keep covered with mats until the dower-stems are an inch above the soil with their lower flower-buds, then expose them fully to light, and the leaves will soon become green and the flowers expand. The temperature of the frame should range from 55° to 65°. After the turn of the year bottom heat is not essential. We place our roots on the wooden stage that rests with the laths on the pipes, so that the plants in the pans and boxes receive some warmth. The temperature is 55° to 60°, 70° or more by day with sun heat and plenty of air. When the plants open the plants are placed in a house with a temperature of 45° to 50°. We force about a dozen pans or boxes of this lovely flower fortnightly from November to April.

ANTHRINUMS (R. H. P.).—It is not unusual for them or any other cross-bred plant to produce flowers varying in colours according to those of their parents.

THE COCOA NUT (A Store Planter).—We advise you to cultivate only the dwarf Palms. *Cocos nucifera*, the Cocoa Nut Palm, attains to the height of 50 feet, and we have seen it higher in Bengal. The following extract answers more than your other queries:—"The three holes in the shell of a Cocoa Nut, which give it such a conical resemblance to a monkey's head, are for the purpose of allowing the young tree to issue from the shell when the nut is planted. The shell with which the core or nuts are covered is extremely hard. When steeped in water it may be beaten out into a substance resembling flax, from which a coarse material may be woven. Cocoa Nut nutting and similar articles are also manufactured from these shells. Inside the hard shell is a layer of white substance, which is both eaten and also much employed in the manufacture of cheap confectionery. When this substance is exposed to the action of a powerful press an oil is obtained, which may be employed in lamps, and burns with a bright clear flame, without producing any smoke or disagreeable smell. A quantity of milk-like fluid is also contained in the interior of the nut, and which, when the nut is young, is much esteemed, but as the fruit grows older the milk becomes more acid and more cooling. A sweet oil may also be obtained from the milk by boiling it at a gentle heat. The milk obtained from the cocoa nut may also be employed instead of ordinary milk for rice puddings, custards, and similar preparations. The nut itself is also used for puddings, cheesecakes, puffs, &c."—(*Cassell's Household Guide*.)

LILIUM AURATUM.—"H. G. S." wishes to be informed the largest number of *Lilium auratum* flowers grown on one stem.

CARNATIONS NOT FLOWERING.—**PLANTING CLEMATIS JACKMANI.**—**WINTERING LATE-SOWN CARNATIONS (Dublin).**—The strong plants of Carnations struck early last year have not flowered from their not being sufficiently strong. The soil being probably rich has induced them to grow vigorously, and this has retarded the flowering. They will no doubt bloom well another season. Now is a good time to plant-out Clematis Jackmanii from pots, for the plants will form good roots before winter, and start strongly next spring. Carnations from seed sown a few days ago will need to have the protection of a frame in winter, with air at every favourable opportunity, and mats over the lights in severe weather.

IRENE HERBERT CULTURE (T. N. R.).—The preceding is the name of the plant you sent us a spray of. It is used in flower-gardening, being planted-out at the end of May or early in June. Cuttings are taken off in August and struck in sandy soil in a cold frame, or in September in a gentle hotbed, wintered in the cutting-pots or pans, and grown-on in spring. If you preserve the old plants they should be kept rather dry in winter, receiving no more water than enough to keep them fresh. To form bushy plants stop frequently, but not after this time, repot in spring, and encourage growth with an increase of moisture. To winter the plants with good foliage they require a warm greenhouse. Three parts sandy loam, half a part each leaf soil and sandy peat, with a sixth of sand and good drainage, will grow them well.

DATURA NOT FLOWERING (Idem).—The want of flowers this year is probably a consequence of the wood of last year not having been well ripened. Afford the plants the lightest and most airy position in the greenhouse, and water only to keep the leaves from falling off prematurely. After the leaves have fallen water only to keep the wood from shrivelling, and in February cut each shoot to within from four to six eyes of last year's wood, cutting-back the weak shoots most and the strongest least; repot when commencing growth, and shift into larger pots when the shoots are a few inches long, watering abundantly when in free growth, and syringing morning and evening until the flowers expand. A light and airy position only is suitable.

MUSHROOM BED FAILING (W. Y.).—From the Mushrooms having appeared in six weeks after spawning, it is evident the spawn was good and that the bed has suited the spawn, though it does not seem to have spread well, as the Mushrooms appeared only around the spawn holes. We presume the bed was covered with 2 inches of soil beaten firm and the surface made smooth. We think you have destroyed the spawn as well as the Mushrooms first appearing by the syringing once a-day, which in a house without ventilation would cause the surface to become too moist. In such a house, where we have now an abundant crop, we find watering, which we do with a syringe, not required of more than twice a week after the bed has been brought into a sufficiently moist state for the production of Mushrooms.

MUSHROOMS ON LAWS (Flycatcher).—It would not answer to take-up the turf in a shady and rather damp part of the lawn, and drop in holes small pieces of spawn. Your chances would be greater if in a dry period you put in pieces of spawn and cover with the piece of turf taken from the lawn, treading it firmly, in fact level. The spawn should be buried about 2 inches. If this were done in early summer it is likely you would have Mushrooms late in summer.

REPOTTING AZALEAS AND CAMELLIAS (Idem).—They may be potted now, but potting is best performed after they have flowered and are commencing to form fresh growths, in March or early April for Camellias, and April or May for Azaleas, as the time of flowering may be, or if not flowering, when commencing to grow.

GARDEN MANURE (R. S.).—Use guano in preference to any you name. If you live near gasworks you may compound an excellent fertiliser by pouring the ammoniacal liquor from the works upon the weeds and other garden rubbish.

ONION SPORT (G. S.).—Though uncommon, the combined inflorescence and bulb-bearing occasionally occur in the Tree Onion. We should thoroughly cleanse the flea-infested onionhouse and then syringe roofs, sides, and floors with diluted carbolic acid.

ROSES (E. B., Berkhamsstead).—*Maréchal Niel* and *Souvenir d'un Ami* would do well in a greenhouse. If a white were wanted *Madame Willermoz* might

be added. (*P. H.*).—We should not recommend either *Anna de Diesbach* or *Louisa Wood* for the purpose for which you require them. *John Hopper* or *Dupuy-Jamain* would suit you.

REMOVING THE SOIL ABOUT GOOSEBERRY BUSHES (Mrs. Henderson).—The earth should be removed down to the roots in November when the leaves have fallen, also for about 18 inches from the stem all round. It may remain out for a month or six weeks, and may then be filled-up with manure and rich soil. To prevent the attacks of the catyrrillar the ground around the stems of the bushes for a distance of 18 inches to 2 feet should be covered 2 or 3 inches deep with tan from the tan yard, leaving it until autumn. The tan should be fresh from the pits after having been used for tanning.

LATE STRAWBERRIES.—CUTTING-BACK PEAR GRAFTS.—APRICOTS UNDER GLASS (Idem).—*Frogmore Late Pine*, *Elton Pine Improved*, and *Elberta* are good late kinds of Strawberries. The Pear grafts should be headed-back to 13 inches, just above a bud. Apricots would succeed under glass trained to a back wall and in front as espaliers, but the front trees must not shade those on the back wall. They do better than when grown in pots, and require considerably less labour in watering.

HOTHOUSE WITH IRON SASHES (Norfolk).—In iron houses, as far as we have experience, there is no very great difference in the breakage of glass as compared with those of wood, nor greater leakage from the pitting parting from the iron. Well painted, we have the impression that iron houses answer as well as those of wood. We should be glad if those having experience of iron houses would give us particulars.

ERECTING A GREENHOUSE (S. H.).—The cost varies according to too many circumstances for us to state the expense. Write to some of the builders who advertise in our columns, and ask them to send estimates.

GROUND VINERY (F. J.).—You must buy Rivers's "Miniature Fruit Garden." The price is 3s. To answer your queries fully would occupy a day. You must send only one question at a time; a letter from you full of questions was put on one side and is lost.

ELTON STRAWBERRY PLANTS (R. P. H. B.).—It is enumerated in the majority of fruit catalogues. We cannot recommend dealers. Write to one of the principal nurserymen advertising in our columns. It is not too late to plant, but the sooner the better.

KEEPING CURRANTS ON THE BUSHES (Idem).—There is no mode equal to matting the bushes after the fruit becomes ripe; gun-lin and hexagon netting answer well, but it is useless in either case to cover the bushes partially; they must be entirely enveloped, and made secure against the incursions of wasps and birds. Mats are the best, because they throw off the rains, and they ought to be new and of large size. Archangel mats are the best. No wonder your fruit does not keep when the material is so badly put on as to admit thrushes. It is of no use if it do not exclude them.

GRAPES WANTING BLOOM (A. F.).—The syringing of the Grapes until half grown would be likely to leave a sediment upon the berries, which when the Grapes were ripe would give the appearance of having been "syringed with dirty water;" but if the water employed were soft clear rain water no such sediment would be deposited, and it would not interfere with the bloom. The injury to this, we imagine, has been caused by the want of ventilation in dull days, and at nights the berries being covered with a dew-like moisture, which has run on them and left the bad appearance, which is not "scalding," and destroyed the bloom. When Grapes are ripening they should have a little air in dull days and at night, in order to keep up a circulation, and allow of any vapour passing off, and so preventing the deposition of moisture on the Grapes.

DALECHAMPIA ROEZLIANA ROSEA FOR EXHIBITION (E. P.).—Your plant is certainly a good specimen, but it would not stand up in good stead at an exhibition where no plant would be much thought of unless twice the size. It might, however, stand well at a local exhibition, but it is not a telling plant at the best for shows, though a very useful one for home decoration.

HONEYUCKLE AND CLEMATIS PLANTING (R. F. H.).—October or early November is probably the best time, but it may be done at any time during the winter in mild weather up to March inclusive. If the plants are to be taken from a wood or hedgerow they should be taken up carefully when the leaves have fallen, choosing plants which have shoots or branches near the base, and not very strong, a small plant being transplanted more safely than a large one, and growing more freely afterwards. Good rich light loam, with leaf soil intermixed, will grow it well, as also the Clematis, which requires similar treatment; but the plants will probably have to be turned out of pots, and should have the ball broken, and the roots spread out. Do not plant deeper than they were before, but keep them rather elevated on a flattened cone, covering the roots about 3 inches deep, and giving a good watering, so as to settle the soil. The shoots should be secured to the wall, training them on the lower part, so as to cover it first. Beyond watering in dry weather, and regulating the shoots, they will not require further attention. The hardiest and freest-growing Clematis is *C. Viridula*, or *Traveller's Joy*.

VINES MILDEWED (W. M. S.).—The leaves sent us are attacked by mildew, which may result from a close moist atmosphere, and want of water at the roots. Dust the leaves and all the parts affected with flowers of sulphur, especially the under surface of the leaves; see that the border is in a proper state as to moisture, and attend to the proper ventilation of the house. The Vines appear to us to be weak, and in the reverse of a rich wet border. It is the atmosphere which is at fault.

CAMELLIA LEAVES BROWNED (T. C. F.).—The Camellia leaves are browned, their tissues disorganised and destroyed by the sun's rays, which, falling upon them powerfully whilst wet, causes them to spot, especially where water is lodging upon them. A shading of tiffany or other material is necessary, there being no Vines or climbers trained to the roof to afford the shade requisite in summer. The top-dressing with the loam, peat, and sheep droppings is good, but will not restore the leaves to their proper state. The shading is necessary from April to the close of September.

CUCUMBERS AND MELONS IN VINERY (Somerset).—The pit will be more useful for plants than for growing other Cucumbers or Melons, the latter not doing much if any good, and the Cucumbers would not be equal to those grown in frames where the plants will have more light. Leaves would be the most suitable material for bottom heat, and should be put in about a fortnight before the Vines are started; and as the Vine border is outside, it ought to be covered with from 18 inches to 2 feet of fermenting materials, such as stable dung and leaves, putting them on about a fortnight before the Vines are started, and renewing up to March. The Cucumbers in the vinery pit would be best grown in pots or boxes, and the shoots trained to a trellis. The Vines we should not start until February, which will give you ripe Grapes in July. The floor of the late house would answer for the wintering of Gra-

niums, but *Verbenas* would be better in an airy position near the glass. The *Calceolarias* would be best wintered in a frame. The stage over the flue will answer for the herbaceous *Calceolarias*, *Cinerarias*, &c. You will need to accommodate them in the early house until the Grapes are cut from this house, as from the moisture the Grapes would not hang long in good condition where the plants are. There are no annuals or perennials that would do well under the trees you describe, and those that are doing pretty well have, we presume, been planted when the trees were young. Cowslip, Primrose, Polyanthus, *Campanula carpatia*, *Hypericum calycinum*, Periwinkles, and *Stachys lanata*, with Winter Aconite and Snowdrops, would give a cheerful appearance.

PEARS RIPENING (Ignoramus).—Beurre Sterckmans in January and February, and Princes Albert in February and March. The knob you enclosed is an excrescence formed by a grub wounding the root to which it is attached.

CONSTRUCTING FORCING PIT (West Coast).—Your house will be a span-roof resting on walls, which may be of stone, and reduced to 4 inches at top, so as to take a wall plate of that width. You have no front lights, nor are any necessary. This will be a great saving. We should not have any lights, but have the roof fixed, rafters and sashbars exclusively; the wall plates 4 inches wide and 3 inches thick; the rafters 4 inches by 2½, and fixed narrow surface upwards; sashbars, 2½ inches by 1½, and these narrow surface upwards. You will need a ridge piece 9 inches by 2 inches, and the rafters morticed and tenoned into it, and so that their upper surface will be 3 inches below the top of the ridge. Two feet from the ridge on one side you will need to introduce a cross piece 3 inches by 2½ inches, and level with the upper surface of the rafters, and parallel with the ridge. Into these cross pieces the sashbars are to be let, whilst on the other side of the roof they will be fixed into the ridge, they as well as the rafters on that side being fixed so as to correspond with those on the other. The rafters and sashbars we should fix so as to take glass about 15 inches wide, less rather than more. They may rest on the wall plates, being cut so as to fit on the wall plates exactly, and be raised so that the rebate for the glass may be 1 inch above them at the lower edge to admit a fillet of wood 1 inch thick and 3 inches wide, which should be cut so as to suit the rafters and sashbars, and project out beyond the wall plates 1½ inch, and having a groove on the under side half an inch from the edge. This will cause the water to drip into the spout and keep it from running down the walls. You will have a space at top on one side of the ridge clear, all but the rafters, 2 feet wide; for this you will need lights that may be 6 feet long, with sashbars corresponding with the rafters and sashbars, the lights 2 inches thick, and hinged with 4-inch butts to the ridge. These lights should move upwards with crank and lever, so that the whole can be raised at one lift, and opened little or much at will. You will need tie-rods of iron to every rafter, and about 4 feet from the ridge, calculating perpendicularly. They may be three-quarter-inch iron, and secured to the rafters with screw bolts. These rods will form an admirable spot for shelves, affording room for plants over the path. The rafters and sashbars to be rebated half an inch wide and deep for the glass, and two sashbars to be fixed between every rafter. The ends may be sashed for glass level with the angle of the roof, and be of the same strength as the roof sashbars. The door posts 5 inches by 4 inches, and door 2 inches thick and 3 feet wide, but it must not exceed the width of the path. The glass throughout 21-oz. sheet, thirds quality. The furnace may be 2 feet 3 inches long, 15 inches wide, and the same deep, with an arched roof of fire bricks, the furnace being composed of them. The ashpit should be 15 inches deep below the bars. The flue, for at least a yard from the furnace, should be of fire bricks, and you will need to have the bottom of the flue level with the top of the furnace. The flue may then be taken level, or with a very slight incline, to the chimney. The flue may be 15 inches deep and a foot wide. We should have the flue raised more than 4 inches from the floor, and the furnace sunk accordingly. The house would be best with the eads north and south. You may have Vines, one to each rafter, having a border partly within and partly outside the house, one side of the house being arched, so as to admit of the roots passing from the inside border to the outside ones. The flue will need to be on one side of the path, so as to admit of the inside border. Your house will be a vinery. Under the Vines you may have plants on a stage, but, these, though doing fairly, will not be so good as if you had no Vines; and in winter you will not be able to do more than exclude frost, as the Vines will then need rest.

HERBACEOUS PLANTS FOR FLOWER-CUTTING (F. J.).—*Campanula celtidifolia*, *C. macrantha*, *C. rapunculoides*, *Cheiranthus longifolius*, *Delphinium Beatonii*, *D. Belladonna*, *D. Madame Richelet*, *Dianthus neglectus*, *Erigeron speciosus*, *Hemerocallis flava*, *Nepeta Mussinii*, *Pentstemon Torreyi*, *Phlox subulata oculata*, *Scabiosa silenifolia*, *Sisyrinchium odoratissimum*, *Spiraea japonica*, *S. palmata*, *S. Filipendula plena*, *Statice latifolia*, *Trollius europæus*, *Veronica prostrata*, *Vicia argentea*, and *Saxifraga longiflora vera*. We have omitted Pinks, Carnations, Picotees, Wallflowers, Stocks, Liliums, Gladioli, Phlox, Paeony, Violets, &c., which are indispensable where cut flowers are in demand.

PRIMULAS OF LAST YEAR (Idem).—Being in 5-inch pots they should be shifted into 6-inch pots, the sides of the ball loosened, and then placed in a cold frame, removing to the greenhouse in October. Any old leaves should be removed, and the plants placed somewhat deeper than they were before, but do not cover any part of the fleshy stem, taking care not to wound the stem, otherwise the plants may die off at the neck.

MUSCH MUSCH APRICOT (J. R.).—Small, almost round, and slightly compressed. Skin deep yellow; orange red next the sun. Flesh yellow, remarkably transparent, tender, melting, and the sweetest of all Apricots. Stones Empervious. Kernel sweet. Excellent for preserving. Ripe in the end of July. This description is from Hogg's "Fruit Manual."

GRUBS ON PEAR LEAVES (A. Fisher; J. B. C. Cheshunt).—They are known popularly as the Slimy Grub, and are the offspring of a four-winged fly, *Tenthredo adumbrata*. If you can refer to our No. 638, page 484, you will see a drawing of the grub and the fly. To destroy the grubs dust the leaves with slaked quicklime. Two dustings generally destroy all.

INSECT ON CONIFER CONES (Beta).—It is a species of *Psylla*, probably *Psylla Laricis*. These insects are allied to aphides, and the same applications which kill the one would destroy the other.

NAMES OF FRUITS (Boston Spa).—Windsor Pear. (*K. C. B.*)—No. 1, Lewis's Incomparable; 2, Carel's Seedling. The Pear is not known. (*M.*)—Duchess of Oldenburgh. (*G. Diss.*)—No. 7, Laub Abbey Pearmain.

NAMES OF PLANTS (M. H. M.).—Perhaps an *Æschynanthus*, but the specimen was withered. (*H. T. M.*)—You send no leaf of your Aloe; it is near *A. miltreiformis* or *A. latifolia*. Ferns shortly. (*W. H. D.*)—1, *Spiraea salicifolia*; 2, *Gentiana asclepiadea*; 3, *Verbascum phœniceum*; 4, *Lysimachia vulgaris*; 5, a double-flowered variety of *Barbarea vulgaris*. (*Lady Maria.*)—*Auredera scandens*. (*J. Wisten.*)—You have named them all correctly.

POULTRY, BEE, AND PIGEON CHRONICLE.

THE POULTRY-KEEPER.—No. 17.

THE BREDA FOWL.

HEN—CUCKOO VARIETY.

The weight and form of a good hen of this variety, called also the Gueldre, are nearly the same as those of the Houdan. She should weigh 6 lbs. 10 ozs. Her head is almost exactly like the cock's in regard to comb, tuft, &c., and only differing in the

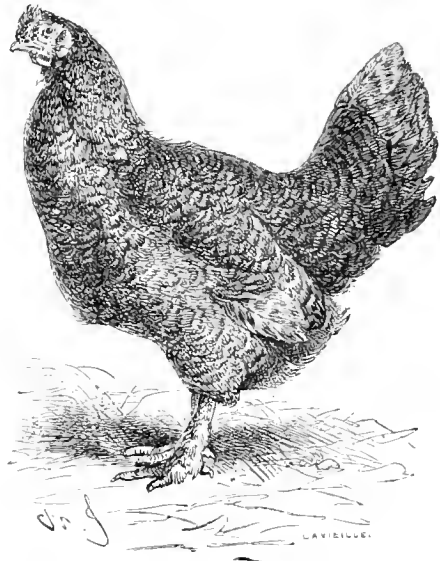


Fig. 69.—Breda Hen.

wattles, which are rather small. The foot is feathered like that of the cock, but the lengthening of the feathers of the hock is less apparent (fig. 69).

Plumage.—In each variety the plumage of the cock and hen is alike. In the Black they are all black, in the White all white, and in the Cuckoo variety it is entirely cuckoo. Each feather has four grey regular marks visible on the white ground (fig. 70), excepting the sickle feathers of the cock, the marks on which take the form of grains of oats.

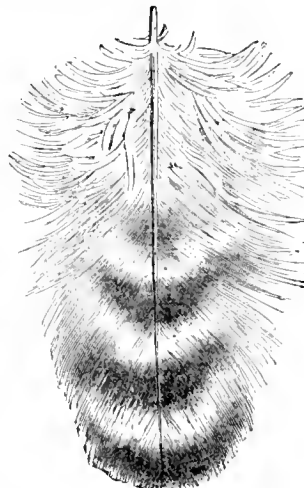


Fig. 70.—Breda Hen's Feather.

With the hen the large feathers of the wings and tail are often less clear than on the other parts, and the marks of these feathers vary from six to seven.

The Breda and Gueldre are excellent layers. Their eggs are very large and excellent. They are seldom broody.

This beautiful fowl is much esteemed in Holland, where it comes from. In France the Black variety is believed to be much used in producing the Black Cochins, and it is thought that the Cuckoo (Gueldre) is used much in the production of the Cuckoo Cochins. It is certain that this variety is justly praised for cross-breeding, and traces of it are found in the principal French varieties.

BINGLEY POULTRY SHOW.

The eighth annual Show of the Airedale Society was held in Myrtle Park, Bingley, on August 26th. Poultry and Pigeons were shown under a tent in pens on Turner's principle. This is a good Show for young poultry, as may be expected from the

locality. In Red Game cockerels there were some good birds, especially that which was awarded the cup, the pullets also being good. In the next class for cockerels a Duckwing was first, and Pile second; but the best Pile in the class was left out, Duckwings winning all the prizes in the following class. *Cochin* cockerels and pullets were very good, the birds forward and well shown; the cup for this section going to Mr. Ansdell's grand pair of Dark Brahmas. The winners in *Spanish* were good forward birds. The *Dorkings*, to which the cup was given, were large, but the cockerel's legs were not good. *Polands* were good and forward; the first and second Gold, and third Silver. The *Hamburghs* were a grand display, the cup for the best pen going to a sweet pair of Silver-spangles. In Blacks Mr. Sedgwick was first with a well-known pair of birds, the rest being a fair lot. In the Selling class Dark Brahmas were first, and Spanish second. In *Bantams*, Game, Mr. Entwistle's grand Brown Red cockerel's time had evidently come, as he won the cup in a very severe competition; second a good Pile. Gold Sebright won first in the Variety class for Bantams, and Blacks second.

PIGEONS.—The entries for these were not so large as usual, but the quality was good throughout. Of *Carriers* there were but eight entries for both classes, and in *Pouters* only ten in the two classes, the cup going to a grand Blue hen against some very good cocks. In *Almonds* Mr. Yardley was beaten, but we thought that gentleman had not sent his crack pair. In the class for *Short-faces* the winners were both Mottles. In *English Owls* the winners were both Blue, but we thought the first rather thin in face. In *Jacobins* a good Red was awarded the cup, the second also a good Red, and in the following class some splendid Whites won the prizes. There were not sufficient pens, and some birds had to be judged in pens where other birds were. The awards were not completed till within twenty minutes of the close of the Show, and we found it impossible to get further particulars after the crowd was admitted into the tent.

GAME.—Black or Brown Red.—Cockerel—1 and Cup, T. Dyson, Halifax. 2, E. Lund. 3, J. Hind, Ferncliffe, Bingley. *he*, J. F. Walton, Horncliffe, Rawtenstall; W. Tiltotson. *Pullet*—1, B. Butler, Bradford. 2, J. Mason, St. John's, Worcester. 3, J. F. Walton. *he*, J. Hind; E. Winwood.

GAME.—Any other variety.—Cockerel—1, W. Clough, Earby, Skipton. 2, E. Winwood. 3, J. Mason. *c*, J. F. Walton; M. Jowett; J. W. Thornton, Bradford. *E. Ayckroyd*, Ecclesfield, Leeds; J. Fortune; J. Fell, Adwalton. *Pullet*—1, E. Ayckroyd. 2 and 3, Wilson & Hodgson. *he*, E. Winwood.

GAME.—Duck.—Cockerel—1, W. A. Taylor, Manchester. 2, H. Beldon. 3, C. Sidgwick, Keighley. *he*, C. Sidgwick; W. A. Taylor. *Any other colour.—Chickens*—1 and 2, C. Sidgwick. 3, W. A. Taylor. *he*, J. I. Booth, Silsden; T. H. Stretch, Ormskirk; W. A. Taylor. *c*, H. Beldon; Thornton & Bailey, Bingley.

GAME.—Dark.—Chickens—Cup and 1, T. F. Ansdell. 2 and 3, J. H. Pickles, Birkdale, Southport. *he*, W. Schofield, Birkenshaw, Leeds. *c*, W. H. Keighley, H. Beldon; M. Jowett, Clayton. *Light.—Chickens*—1, J. Long, Bromley Common. 2, J. Watts. 3, G. F. Umpleby, Boroughbridge. *c*, H. Beldon.

SPANISH.—Chickens—1, H. Beldon. 2, H. Wilkinson, Earby, Skipton. 3, E. Winwood. *he*, J. Thresh, Bradford; J. Roberts, jun., Silsden.

DORKINGS.—Chickens—1 Cup and 3, T. Briden, Cononley, Leeds. 2, G. Fox, Wilmslow. *he*, W. Morfitt, Goole.

POLANDS.—Chickens—1 and 2, T. Dean, Keighley. 3, H. Beldon.

ROCKS.—Chickens—1, W. Dring, Faversham. 2, J. J. Malden. 3, G. W. Hibbert, Gilders, Manchester.

HAMBURGH.—Golden-spangled.—Chickens—1, T. E. Jones, Wolverhampton. 2, T. May, Wolverhampton. 3, G. & J. Duckworth, Church. *Silver-spangled.—Chickens*—1, Cup and 3, H. Beldon. 2, W. Fawcett, Baildon. *c*, E. Gill, Ferriby, Bingley; T. Fawcett, Baildon, Leeds.

HAMBURGH.—Gold-pencilled.—Chickens—1, H. Beldon. 2, T. Fawcett, 3, G. & J. Duckworth. *he*, W. Clayton, Keighley; W. Driver. *Silver-pencilled.—Chickens*—1, J. Smith, Gilders, Bingley. 2 and 3, H. Beldon. 3, H. Smith, Keighley. *he*, J. Webb, Kellbrook, Colne; J. Webster.

HAMBURGH.—Black.—Chickens—1, C. Sidgwick. 2, H. Robinson, Westgate, Baildon. 3, H. Beldon. *he*, C. Sidgwick; H. Beldon.

ANY OTHER VARIETY.—Chickens—1, W. Cockshott, Farncliffe, Bingley (Silkies). 2, J. Long.

BANTAMS.—Game.—Chickens—1, Cup and 3, W. F. Entwistle, Westfield Wyke, Bradford. 2, E. Walton, Horncliffe, Rawtenstall. *he*, W. F. Entwistle; C. Noble; A. C. Bradbury; Mrs. A. Sugden, Swinley, Uckfield. *Any other variety.—Chickens*—1, Leno, Marygate Street, Dunstable. 2, H. Beldon. 3, S. Milner, Keighley. *he*, T. Dyson; J. Watts; H. Beldon.

SELLING CLASS.—Cock—1, T. Robinson. 2, D. Sharp, Bingley. *he*, H. Beldon; W. Tiltotson. *c*, Carr, Wilsden, Bingley; T. Fawcett; J. Sharp. *Hens or Pullets*—1, W. H. Hodgson. 2, J. Thresh. 3, H. Beldon. *he*, H. Wilkinson; J. I. Booth; J. Berry; J. Foulde, Bingley; J. Watts; W. Thwaites, Harden (Buff Cochins).

PIGEONS.

CARRIERS.—Black—1, E. Horner, Harewood, Leeds. 2, H. Yardley, Birmingham. *he*, A. T. Umpleby. *Any other colour*—1 and 2, E. Horner. *he*, W. Notage.

POUTERS.—Red or Blue—1 and Cup, W. Harvey. 2, E. Horner. *he*, W. Harvey, Shelfield; E. Horner; J. E. Crofts, Blythe, Worksop. *Any other colour*—1, H. Simpson, Spalding. 2, W. Notage. *he*, H. Simpson; J. E. Crofts.

TUMBLERS.—Short-faced.—Almond—1, W. Brydone, Langton Mains, Dunse. 2, H. Yardley. *he*, E. Horner; W. Harvey. *Any other variety*—1, E. Horner. 2, J. Lister. *he*, W. Harvey (2); E. Horner.

TUMBLERS.—Long-faced—Cup, 1 and 2, D. Riddiough, jun. *he*, W. Harvey. *he*, D. Riddiough, jun.; J. Watts; E. Horner.

BARNS.—Cup and 1, W. Harvey. 2, E. Horner.

OWLS.—English—1, Ward & Rhodes, Otley. 2, W. Binns. *he*, E. Lee. *he*, A. T. Umpleby; E. Rhodes; W. Hardcastle, Priest Thorpe, Bingley; W. Binns, Pudsey (2).

JACOBIANS.—Red or Yellow—Cup and 1, T. Croft, Killinghall. 2, W. Notage. *he*, T. Holt, Bradford (2); J. Smith, Walkley, Shelfield; A. A. Vander Meersch, Tooting; E. Horner; T. Holt. *Any other colour*—1 and 2, A. A. Vander Meersch. *he*, W. Croft.

PANTAILS—1, H. Simpson. 2, J. F. Loversidge. *he*, G. F. Umpleby; J. Walker, Newark; E. Horner. *c*, W. H. Tomlinson.

TURKITS—1 and 2, W. Croft. 3, W. Moore. *he*, T. Foster, Bingley (2). *he*, H. Beldon; C. Newall, Keighley; E. Rhodes, Great Horton; W. Croft.

ANTWERPS.—Short-faced—Cock—1, J. Wright. 2, J. Lister, Keighley. *he*, E. Horner. *he*, J. P. Rothwell, Rochdale; W. Gamon, Chester; J. Wright,

Manchester; Tordeff & Wilkinson, Wibsey, Bradford. *c*, H. Yardley; W. Ellis; J. Crossland. *Hens*—1, W. Ellis. 2, J. Wright. *he*, W. Gamon; J. Lister (2).

ANTWERPS.—Long-faced—Cock—1 and Cup, J. Lister. 2 and *he*, W. Ellis. *he*, J. Wright; H. Jennings. *Hens*—1, H. Jennings. 2, J. Lister. *he*, W. Ellis.

DRAGOONS.—Blue or Silver—1, Ward & Rhodes. 2, W. Binns. *he*, T. Smith, Lawkholme, Keighley. *he*, S. Cliff, Nantwich; W. Gamon; J. Lancaster, Northgate, Baildon; W. Harvey. *c*, A. Smith, Northwam, Halifax; A. Bentley. *Any other colour*—1, R. Woods, Mansfield. 2, W. Binns. *he*, F. Graham, Birkenhead.

ANY OTHER VARIETY—1, W. Harvey. 2, H. Beldon. *he*, A. A. Vander Meersch (2). *he*, J. Watts; E. Horner. *c*, J. E. Crofts.

SELLING CLASS.—Single Birds—1, W. Brydone. 2, H. Beldon. *he*, W. Barker; J. Lister. *c*, S. Rushton; E. Horner; J. Hawley, Gillingham, Bradford. *Pairs*—1, H. Beldon. 2, A. A. Vander Meersch. *he*, W. Brydone; D. Riddiough, jun.; T. Foster; E. Laycock, Atterworth, Keighley (Archangels); W. Jackson (Speckled Dragons); Tordeff & Wilkinson; K. White; E. Horner; J. Hawley; J. E. Crofts.

JUDGES.—Poultry: Mr. J. Dixon, North Park, Clayton, Bradford. **Pigeons**: Mr. W. Cannan, Bradford.

GREEN HAMMERTON POULTRY SHOW.

The twenty-eighth Exhibition of this Society was held, in connection with a horticultural show, on August 25th. The pens numbered 135, there being a slight increase of entries in both poultry and Pigeons. Some of the classes were well represented, more especially Dorkings, Game, Brahmas, and Game Bantams, and there were a few good birds in most of the classes. A capital pen of Brown Red Game chickens secured the extra prize for the best pen in the Show. There were some good Pigeons in all the classes.

SPANISH—1 and 2, R. R. Farrer, Green Hammerton Hall.

DORKINGS—1, J. Robshaw, Whitley. 2, Miss Haggard, Wilstrop Hall. *Chickens*—1, R. R. Farrer. 2, T. P. Carver, Langthorpe.

BRAUMA POOTRA—1, E. Williams, Sharow. 2, Miss C. Dent, Ribston Hall. *he*, T. P. Carver. *c*, E. Williams; G. Umpleby, Boroughbridge; C. Holdsworth, Harrogate. *Chickens*—1, T. P. Carver. 2, Miss Lord, Starbeck. *c*, T. Horseman; G. Umpleby.

GAME—1 and 2, J. Watson, Knaresborough. *he*, C. Williams, Knaresborough. *c*, Wakefield, Whitley. *Chickens*—1 and Extra, J. Watson. 2, J. Robshaw. *Cochin-China*—1, G. Holmes, Driffield. 2, K. Raworth, Harrogate. *c*, R. Raworth; Wells & Sherwin, Ripon. *Chickens*—1, W. Lanton. 2, Wells and Sherwin.

HAMBURGH.—Golden-spangled—1, T. P. Carver. 2, G. Holmes. *Golden-pencilled*—1, Wells & Sherwin. 2, J. Robshaw. *Chickens*—1, J. Robshaw. 2, Wells & Sherwin.

HAMBURGH.—Silver-spangled—1, G. Holmes. 2, J. Robshaw. *Chickens*—1, J. Robshaw. *Silver-pencilled*—1, Myers, Ripley. 2, J. Robshaw. *Chickens*—1, J. Williams, Knaresborough. 2, E. Myers.

GAME BANTAMS—1, Wells & Sherwin. 2, T. P. Carver. *c*, C. Holdsworth. **BARNDORF**—1, J. Cocker, Nun Monkton. 2, Chapman, Green Hammerton. *Chickens*—1, T. P. Carver. 2, G. Sadler, Boroughbridge. *c*, J. Cocker; H. Flint, Nun Monkton.

GESE—1, G. Theakstone, Nun Monkton. *Goosings*—1, G. Theakstone. 2, Mrs. Dickson, Little Ouseburn.

HAMBURGH.—Duckling—1, T. P. Carver. *Ducklings*—1, G. Sadler. 2, T. P. Carver. *Rouen*—1, Graham, Aldborough. 2, Sadler. *Ducklings*—1, Graham. 2, Miss Haggard, Wilstrop Hall. *Any Cross Breed*—2, J. Chapman, Great Ouseburn.

TURKEYS—1, Miss Haggard. *Poult*—1, Miss Haggard. **SELLING CLASS**—1 and 2, T. P. Carver. 3, Wells & Sherwin. *c*, T. Horseman; C. Holdsworth.

EXTRA STOCK—1, G. Sadler. 2, T. P. Carver. 3, Miss Lord.

PIGEONS.—Tumblers—1, Wells & Sherwin. 2, Sadler. *c*, Chapman. *Pantails*—1, Wells & Sherwin. *Croppers*—1 and 2, Wells & Sherwin. *c*, R. R. Farrer. *Any Distinct Breed*—1, G. Umpleby. 2, A. Blackborough, Harrogate. *he*, Wells & Sherwin; G. Sadler. *c*, Wells & Sherwin; Chapman. *Selling Class*—1, G. Sadler. 2, K. R. Farrer.

JUDGE—Mr. Joseph Walker, Birstwith, near Ripley.

COTTINGHAM POULTRY SHOW.

The annual poultry, Pigeon, and Rabbit Show and Floral Fête of this most beautiful village was held in the grounds of Mrs. Gee, kindly lent for the purpose. It would be difficult to find a more picturesque and excellent site, for the large and amply-furnished horse chestnut trees afford a welcome shade from the hot sun, and add to the beauty of the scene. No tent was provided for the poultry section, although most spacious ones were erected for the floral department, and we would direct the attention of the Committee to this want, and also to the need of dispensing with the ugly wicker skeps in which the poultry were penned. They are most awkward for the birds, make these difficult to see, and are altogether unsightly. They would no doubt sell for various purposes, and save the cost of rental for the time between one show and another. The Committee deserve the highest commendation for the manner in which they attended to the birds placed in their hands.

Spanish were first on the list; the first-prize pair very grand in all points, the second also good. *Cochins* were very good, but *Dorkings* poor. In *Game* a fair pair of Brown Reds were first, but the rest were of little merit, the only bird in single cocks at all worthy of notice being a really good Brown Red. The Variety class contained a very good pair of Duckwings; the second-prize cock was good, but broken in feather. If we except the winners in *Hamburghs* there was not one pen worthy of notice, but the winners were mostly well-known birds. *Brahmas* were bad, but *Bantams* pretty good throughout, the winners in *Game* being Black Red chickens of great promise, a capital cockerel also winning in single cocks. In the Variety class of Bantams was a grand pen of Silver Sebrights, which we unhesitatingly

pronounce the most perfect we have yet seen of the pure snow-white ground. In *Ducks* Rouens were first and third, Aylesbury second, and these were pretty good; and in the Variety class Black and White Calls divided the prizes.

PIGEONS were the best section, whether as regards the quality or numbers. They were shown in Turner's pens, and as a display, made quite a contrast to the poultry and Rabbits. *Pouters* were first on the list, a grand showy Blue cock taking the first prize and cup, closely pressed by a nice slim-built White cock, which, however, did not show well. A nice Black was third, and several others were mentioned. *Carriers* were not good, though the first-prize Black was tolerably good. *Turbits* were capital, almost every bird being of high character; the first a Blue cock, second Yellow, and third Red. *Trumpeters* were fine; better, in fact, than often seen. Mr. Meersch won all the prizes with imported birds. Those in pen 11, v.h.c., were of the old English variety, and very good for that kind. *Jacobins* were capital in head, hood, and chain, and all the winners Reds. *Fantails* were a fair class, the winners large-tailed, good also in carriage; second also a well-spread tail, and third rather large, but good in all other respects; while pen 5, n.c., was small and splendid in style, but had no tail, No. 7 being very open in the top part; both the latter needed rest and new feathers. *Dragoons* were very fine; the first a Red cock, sound to the very roots of his feathers, and second and third Blues. In *Tumblers* an exquisite Almond was first, an Almond cock very fine in head second, and a capital Kite third. No. 9, also an Almond, was altogether out of order. *Nuns*, as may be expected, were very good. Of *Owls* there were but four entered, the first a Black foreign, second Blue English, and third Blue foreign, the latter having some white feathers in its check. In *Barbs* we found some young but good specimens; the first a Dun, second and third Blacks. In Any variety the first award was made to a good Red Jacobin, second a Pigmy Pouter, and third a Black Maggie.

RABBITS.—There were three classes. The first, for Lop bucks, had six entries, and some of these were very good. The first, a Tortoiseshell, was young and not large, but in fine order, 2½ inches in ear by ½; second large, but out of condition, 2½ inches by ½, good in all other points; the third, Fawn-and-white, had a bad eye, and was 20½ inches by ½. Of does there were seven entries, and these were a grand lot. The first, a Fawn doe, was large, in the finest order, with large dewlap, and ears 2½ inches by ½; second also Fawn, was 20½ inches by ½; the third a Tortoiseshell, 2½ inches by ½. In the next class a nice even Silver-Grey buck was first, a good Angora second, and a very large Patagonian third.

There was a section for **CANARIES**, in which we found some excellent birds of the Derby tint, but these were left out, as a rule, for birds of a most mongrel colour—birds, in fact, that were not Norwich. In the Buff class, however, this rule was reversed, and the prizes given to a variegated and even-marked specimen; and in this class one of the most exquisite Mealy specimens was left out without even a commendation, which we consider wrong in a mixed class.

The day proved fine, and an immense number of fashionable visitors from the adjacent watering-places attended the Show.

SPANISH.—1, E. Brown, Driffield. 2, Pickering & Duggleby, Driffield. 3, M. Bingham, Cottingham.

DORKINGS.—1, W. Morfitt, Goole. 2 and 3, R. W. Richardson, Hull. 4, J. C. Crofts, Hull. 5, J. E. Crofts, Hull. 6, J. E. Crofts, Hull. 7, J. E. Crofts, Hull. 8, J. E. Crofts, Hull. 9, J. E. Crofts, Hull. 10, J. E. Crofts, Hull. 11, J. E. Crofts, Hull. 12, J. E. Crofts, Hull. 13, J. E. Crofts, Hull. 14, J. E. Crofts, Hull. 15, J. E. Crofts, Hull. 16, J. E. Crofts, Hull. 17, J. E. Crofts, Hull. 18, J. E. Crofts, Hull. 19, J. E. Crofts, Hull. 20, J. E. Crofts, Hull. 21, J. E. Crofts, Hull. 22, J. E. Crofts, Hull. 23, J. E. Crofts, Hull. 24, J. E. Crofts, Hull. 25, J. E. Crofts, Hull. 26, J. E. Crofts, Hull. 27, J. E. Crofts, Hull. 28, J. E. Crofts, Hull. 29, J. E. Crofts, Hull. 30, J. E. Crofts, Hull. 31, J. E. Crofts, Hull. 32, J. E. Crofts, Hull. 33, J. E. Crofts, Hull. 34, J. E. Crofts, Hull. 35, J. E. Crofts, Hull. 36, J. E. Crofts, Hull. 37, J. E. Crofts, Hull. 38, J. E. Crofts, Hull. 39, J. E. Crofts, Hull. 40, J. E. Crofts, Hull. 41, J. E. Crofts, Hull. 42, J. E. 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these ought by all means to have been reversed. *Owls* were not good; a moderate pair of Blue English were first, and Foreign Blue second. *Barbs* were Blacks in both cases, the first older and better made-up than the second; the latter a promising pair. The *Jacobin* class was the worst judged of all the Pigeons, the best pair being left out altogether; these were Reds of most exquisite colour. In Pen 732 the first were bad in colour, and grizzily in hood and chain (Reds). Second, Yellows, one bird good, but the other had yellow eyes. Pen 733 was commended, and one bird had a black eye. In *Tumblers* Black Mottles won both prizes; and in *Baldpates* both winners were Blue. In *Runts* the winners were both Silvers, but not the largest; a pair of Blues from Mr. Yardley were much the largest, but in wretched condition. *Fantails* were good as regards the winners, but the rest poor. *Dragoons* were, as usual here, a large class, but there were not many good pens, and we considered them well placed, though there were those of a contrary opinion. We were surprised to find only three pairs of Long-faced *Antwerps*, but these were very good birds, the first Red, second Blue Chequers. There were thirteen entries for Short-faces, but not one that could fairly be designated by that title, all being more of the medium-faced breed; but the prizes were awarded and as rightly as could well be.

DORKINGS.—1, J. Walker, Rochdale. 2, J. Robinson, Garstang.
SPANISH.—Black.—1, H. Beldon, Goitstock, Bingley. 2, J. Leeming, Broughton, c, J. Thresh, Bradford.
GAME.—Black-breasted and other Reds.—1, J. Fortune, Keighley. 2, C. W. Brerley, Middleton. c, H. Beldon; Nuttall & Anderson, Barnoldswick. *Duckings* or any other variety.—1, Nuttall & Anderson. 2, R. Walker, Gomersal, Leeds.
COCHIN-CHINAS.—1, C. Sidgwick, Keighley. 2, J. Walker, Rochdale. c, H. Beldon.
HAMBURGHS.—Golden-pencilled.—1, H. Beldon. 2, J. Long, Bromley Common, c, J. Robinson. *Silver-pencilled.*—1, H. Beldon. 2, J. Long. *Golden-spangled.*—1, H. Beldon. 2, G. & J. Duckworth, Church. c, T. Dean, Keighley; J. Long. *Silver-spangled.*—1, J. Robinson. 2, H. Beldon. c, J. Long. *Black.*—1, J. Robinson. 2, T. W. Holmes, Rushcroft, Baildon.
POLANDS.—1 and 2, H. Beldon.
BANTAMS.—Game.—1 and 2, W. F. Entwistle, Westfield, Bradford. c, E. Walton, Horncliffe. *Any colour.*—1, W. H. Ashton, Mottram.
ANY OTHER VARIETY.—1, H. Beldon. 2, J. Robinson. c, E. Walton; J. F. Walton, Horncliffe.

CHICKENS.

DORKINGS.—1 and c, T. Bridon, Conon cv. 2, G. Fox, Wilmslow.
SPANISH.—Black.—1, H. Beldon. 2, J. Thresh.
GAME.—Black-breasted and other Reds.—1, J. F. Walton. 2 and c, W. T. Coates, Barnoldswick. *Duckings* or any other variety.—1, D. Collins, Great Horton. 2, J. F. Walton. Extra 2, W. Clough, Early. c, J. W. Thornton, Bradford; J. Fortune.
COCHIN-CHINAS.—1 and 2, C. Sidgwick.
HAMBURGHS.—Golden-pencilled.—1, T. Fawcett, Baildon. 2, H. Beldon. c, E. Clayton, Keighley. *Silver-pencilled.*—1, H. Beldon. 2, J. Long. c, R. W. Bracewell, Early. *Golden-spangled.*—1, H. Beldon. 2, G. & J. Duckworth. *Silver-spangled.*—1, T. Fawcett. 2, H. Beldon. c, J. Long. *Black.*—1, H. Beldon. 2, H. Robinson, Baildon, Shipley. c, J. Long; C. Sidgwick; W. Tate, Cottingham, Bingley.
POLANDS.—1 and 2, T. Dean.
BANTAMS.—Game.—1 and c, W. F. Entwistle. 2, A. Sargent, Swinley, Cleckheaton. *Any colour.*—1, H. Beldon. 2, S. Milner & F. Beanland, Keighley. c, T. Freer, Skipton.
ANY OTHER VARIETY.—1, J. Pickles, Birkdale, Southport. 2, J. F. Walton. c, H. Wilkinson, Early; H. Bailey, Harden, Bingley.
GEES.—1, J. Walker, Rochdale. 2, Capt. L. Anyon, Chorley.
DUCKS.—*Aylesbury.*—1, J. Walker. 2, J. Newton, Silsden. c, J. Walker, Rouen.—1 and 2, J. Walker. c, H. B. Smith, Broughton. *Any other variety.*—1 and c, H. B. Smith. 2, J. Walker.
TURKEYS.—1, J. Walker. 2, T. Ellison, Skipton.

PIGEONS.

CARRIERS.—Cock.—1, E. Horner, Harewood. 2, W. B. Mapplebeck, jun, Birmingham. *H. n.*—1 and 2, E. Horner.
POWTERS.—Cock.—1, J. Hawley, Gillington. 2, E. Horner. *Hen.*—1, E. Horner. 2, J. Hawley.
TUMBLERS.—*Almond.*—1, E. Horner. 2, H. Yardley, Birmingham.
OWLS.—1, W. Hurdcastle, Bingley. 2, E. Horner, c, Ward & Rhodes, Otley; S. Lawson, Preston.
BARBS.—1, E. Horner. 2, J. Thresh. c, S. Lawson.
JACOBS.—1 and 2, T. Holt, Bradford. c, J. Hawley.
TROUBLES.—*Notched.*—1 and c, E. Horner. 2, H. Yardley.
BALDPATES.—1, H. Yardley. 2, J. & W. Oddie, Brierfield.
RUNTS.—1, H. Yardley. 2, A. Smith, Skipton.
FANTAILS.—1, J. Hawley. 2, E. Horner.
DRAGONS.—1, Ward & Rhodes. 2, N. Smallpage, Colne. c, W. B. Mapplebeck, jun.
ANTWERPS.—*Long-faced.*—1 and 2, W. Ellis, Idle. *Short-faced.*—1, R. Mason, Skipton. 2, W. Hurdcastle, c, W. Ellis.
ANY OTHER VARIETY.—1, E. Horner. 2, T. & W. Oddie.

JUDGES.—Mr. James Dixon, Bradford; Mr. James Heywood, Middleton, Manchester.

PENISTONE POULTRY SHOW.

The twenty-first annual Show was held at Penistone on August 20th. The classes being more numerous, the entries in most of the divisions were much larger than at Woodsome, there being classes for both young and old birds.

In adult *Dorkings* Mr. Harvey showed a capital pen, the second being also good; and in *Spanish* Mr. Beldon took both first prizes, the birds in these classes being good. In *Cochins* Buff and Lemon of high merit won, the chickens being Buff and White respectively. Of adult *Brahmas* only the first prize cock was worthy of notice, but the chickens were a grand class, Dark birds winning. There were two classes for *Houdans*, and some pretty fair birds were shown. In *Hamburgs*, with one exception, the prizes fell to the lot of Mr. Beldon, although in these classes the competition was as a rule very good. There were six classes for *Game* fowls, which are generally good here. In

the class for adult Reds both prizetakers were of the Brown variety, but in chickens they were Black-breasted, and though young they showed points such as would gladden the eyes of a good Game judge. Some fair *Duckwings* were shown in both classes, the pullets being especially good in colour. *Bantams* were a large class, and two second prizes were awarded; this we did not consider an abuse of privilege, as all varieties and ages were shown together. First and second were Black Reds, and extra second Black Rose-combs. *Turkeys*, *Geese*, and *Ducks* were poor except the winners in Rouens.

RABBITS were in pairs—a system we must again condemn, and we hope this defect will be rectified at future shows. A grand pen of Lops was shown; second came Angoras, and an extra prize was given to a pair of Fawn-and-white Lops.

DORKINGS.—1, W. Harvey, Sheffield. 2, Burch & Boulter, Sh-field. *Chickens.*—1, Burch & Boulter.
SPANISH.—Black.—1, H. Beldon, Goitstock, Bingley. 2, E. Brown, Sheffield. *Chickens.*—1, H. Beldon. 2 and c, Burch & Boulter.
COCHIN-CHINA.—1 and 2, W. Harvey. *hc, H. Beldon; c, Wright, Holmfirth.* *Chickens.*—1 and 2, H. Beldon. *hc, Moore & Cartwright, Hollowgate, Holmfirth; G. Swinden, Snowdenhill.*
BRAMHAS.—1, H. Beldon. 2, W. Whitaker, Woodley, Stockport. *Chickens.*—1, H. Beldon. 2, H. Wilkinson, Farby, Skipton. *hc, Mrs. R. C. Clarke; P. Skidmore, Sh-field; H. Dugby, Lindley.*
HOUDEANS.—1, J. Healey, Hipworth, Huddersfield. 2, G. W. Hibbert, Godley Hyde, Manchester. *Chickens.*—1 and 2, G. W. Hibbert.
PHEASANTS.—*Golden.*—1, H. Beldon. 2, Moore & Cartwright. *hc, Burch and Boulter; Moore & Cartwright; H. Beldon.* *Chickens.*—1, Burch & Boulter. 2, Moore & Cartwright. *hc, J. H. Booth, Hartholts, Holmfirth.*
PHEASANTS.—*Silver.*—1 and 2, H. Beldon. *Chickens.*—1, H. Beldon. 2, W. McMillen, Glossop. *hc, G. Hemmingsfield, Ecclesfield.*
HAMBURGHS.—*Golden-pencilled.*—1, H. Beldon. 2, W. Clayton, Keighley. *hc, H. Smith, Newton, Hyde; H. Beldon.* *Chickens.*—1, H. Beldon. 2, W. Clayton, Keighley. *hc, Burch & Boulter.*
HAMBURGHS.—*Silver-pencilled.*—1 and 2, H. Beldon. *Chickens.*—1, H. Beldon. 2, W. McMillen.
GAME.—*Black-breasted and other Reds.*—1, J. A. Brook, Holmfirth. 2, B. Burton. *hc, C. Travis, Thurgoland; H. Beldon.* *Chickens.*—1, B. Burton. 2 and c, Miss E. Johnson, Wath-on-Dearne, Rotherham.
GAME.—*Duckings and other Greys and Blues.*—1, B. Burton. 2, J. B. Hepworth, Hatfield. *hc, H. C. & W. J. Mason, Hirstall, Leeds.* *Chickens.*—1, Miss E. Johnson. 2, B. Travis. *hc, Miss E. Johnson; M. Stringer, Ecclesfield.*
GAME.—*Whites and Piles.*—1 and 2, H. C. & W. J. Mason. *Chickens.*—1, J. A. Crooke, Holmfirth. 2, C. Webb, Barnsley.
ANY OTHER VARIETY.—1, W. Harvey. 2, G. W. Hibbert. *hc, J. Lawton, Thurlstone; G. W. Hibbert.* *Chickens.*—2, Moore & Cartwright. *hc, G. W. Hibbert.*
BANTAMS.—1, T. Marsden, Wike, Bradford. Extra 1, L. Higgins, Blackburn. 2, Burch & Boulter.
POULTS.—1, F. Parkin, Hunshelf. 2, J. Pearson, Snowden Hill.
GOSLINGS.—1, C. Marsh, Sheeohouse. 2, G. Swinden, Hunshelf.
DUCKINGS.—*White Aylesbury.*—1 and 2, E. Taylor, Deepcar. *Any other colour.*—1 and 2, T. Hainsshaw, Earlsheaton.
SPECIAL PRIZES.—*Goslings.*—1, J. Nicholson, Eastfield, Thurgoland. *Ducklings.*—1, W. Hawley, Penstone.

RABBITS.—1, C. Wright, Holmfirth. Extra 1 and 2, W. Allison, Sheffield. *hc, T. Marier, jun., Newton Moor, Hyde.*

JUDGE.—Mr. W. Cannan, Adolphus Works, Bradford.

HALIFAX AND CALDER VALE POULTRY SHOW.

The first half of the day (August 29th), was not one of the most suitable for an agricultural show, heavy showers falling at intervals during the morning, but, on the contrary, the afternoon was most brilliant, and the influx of visitors very satisfactory. In the poultry and Pigeon sections the old and bad pens had been replaced by Turner's excellent wire ones, and the arrangements were excellent.

Spanish were first, and among the adult birds there was one grand pen, the second also containing a very good hen. Chickens were good, forward, and very fine in face and drop. Adult *Dorkings* are fast falling in feather, and much need their well-earned rest. Young were large, the first-prize pullet excellent. In *Cochins*, the first were a well-shown pen of Buffs, the second being good Whites; and in chickens we thought the first prize better placed than at Skipton, where the Buffs were first, and Partridge second. In this case the Partridge (which are an extraordinary pair), were first. Of *Brahmas* there were only two pens of old birds, the first really grand; but in chickens it was generally thought that the prizes had been badly awarded, the first-prize birds being small and thin, without style, and the pullet very bad on the breast; the second, being good all round and very large, ought to have been first. Pen 455, highly commended, was not so well developed, but contained a most exquisitely marked pullet, and ought to have been second; while the reward for the first-prize pen should have been a commendation, though it is only fair to state that another grand pen, shown by Mr. Schofield, was too late for competition. Black-breasted Red *Game* were very good in all points but feet, but there were some fair birds in chickens; still, if the loss of a claw be no fault, then the second ought to have been first, for the first-winners were poor. In adult Brown Reds the prizes seemed to have been awarded more to feather than quality, the second being grand but in deep moult, while the first, in full feather, were a wretched pair. Chickens were well placed, the winners being two such pens as we have not seen this season. Of *Duckwings* there was only one pen, but it was very good. The first in chickens were a very good pair of bright-coloured birds, but the rest very poor. In *Game* of any other variety there were two entries of adults, both Piles, and very good. In

chickens of this variety the first was a very bad pen, while the second, with a good pullet, had the best cock of any colour that has been seen this year. Adult *Polands* were, first Silver, and second Gold. There were six classes for *Hamburghs*, the colours being mixed, which we consider a mistake, for the entries would justify a redistribution of the classes. Mr. Beldon won all the prizes, as also the cup for the best pen in the Show, with a capital pen of Silver-spangled chickens. The Black *Hamburghs* were very good. In the Variety class, the first were *Crève-Cœurs*, and second White Malays; and in chickens first came Malays, and second *Hondans*.

In Game *Bantams* the first pen was of Brown Reds, the second of Black Reds. Pen 537, also of that colour, were a specially neat pair, and all were chickens. In Black *Bantams* the first were old, and the second young; and in the Variety class the first were Silver-faced chickens of pure colour, the second Golden.

Of *Aylesbury Ducks* there were only three pens, and the prizes awarded as at Skipton, as also in Rouens; but in the Variety class the prizes were rightly reversed. In *Geese* the first were grand Whites, second Grey, also good. In the Selling class the first were White Cochins, and second Spanish.

PIGEONS.—The prizes were well awarded throughout; in fact we did not see a single exception to this. *Pouter* cocks came first, and the first-prize Blue cock, which was quite up and in fine play, won the cup for the best pen in the Show; a fine, long, wasp-waisted bird, not being in high order, only received a high commendation, the second going to a Red. In hens the first was a superb Blue, a splendid White running very closely and winning second. In *Carrier* cocks the first was Dun, and second Black, a very grand Dun receiving a high commendation. In hens the winners were Black, the second very heavy but beaten in the fineness and quality of the first. In *Almond Tumblers* the first were an exquisitely spangled pair, very small and good in carriage. *Tumblers* of any other variety were, first Yellow Agates, grand in head; second Red Mottles; and highly commended a very pretty pair of Blue Balds. *Dragoons* were not a fine class, but the winners were pretty good, the first, however, a little too long and Carrier-like in face and beak, but good in skull; the second a good old pair. In *Trumpeters* Mr. Fulton showed two grand pairs, first Mottles, and second Blacks. *Owls* were, White Foreign first and second, the first an almost perfect pair; of the second the hen had a lame wing, but these were also good. In *Turbits* Mr. Fulton showed the best pair of Blacks we have yet seen, and these won first, good Silvers coming second, the whole being noticed. In *Jacobins* good Reds won in both cases. In *Fantails* there were but two pens, the first grand in carriage and motion; second large with good tail. *Maggies* were, first Red, and second Yellow. In *Antwerps* the first were good Red Chequers of the Long-faced variety, the second being what were doubtless shown as Short-faces and Duns. Mr. Gamon's grand Blue Chequers were highly commended. In the Variety class was one of the largest pairs of Silver Runts we have seen of late, the second very good Brunettes; Ice Pigeons, Swallows, &c., being also noticed; and in the Selling class were Mottle Tumblers and Black Carriers.

SPANISH.—1, H. Beldon, Goitstock, Bingley. 2, J. Leeming, Bronghton, Preston. *hc*, Fallister & Hawkins, Topcliffe, Thirsk; J. Thresh, Bradford. *Chickens*.—1, H. Wilkinson, Earby, Skipton. 2, H. Beldon. *hc*, W. Jagger, Fordmill, Horbury; Mrs. W. Jagger, Fordmill, Horbury.

DORKINGS.—1, J. Walker, Rochdale. 2, J. Robshaw, Whixley, York. *Chickens*.—1, T. Briden, Cononley. 2, S. Brierley, Ending, Rochdale. **COCHIN-CHINA.**—1, J. White, Wetherby, Netherpton. 2, H. Beldon. *Chickens*.—1, C. Sidgwick, Keighley. 2, H. Beldon.

BRABRA FOOTRA.—1, J. F. Smith, Sheffield. 2, H. Beldon. *Chickens*.—1, M. Jowett, Clayton. 2, J. H. Pickles, Birkdale, Southport. *hc*, H. Digby, Lindley.

GAME.—*Black-breasted Red*.—1, R. Hemmings, Shelf. 2, W. Fell, Adwalton, Leeds. *Chickens*.—1, T. Aspinall, Brighouse. 2, J. Hird, Dubb, Bingley. *hc*, K. Walker, Woodnock, Gomersal.

GAME.—*Brown-breasted and other Red*.—1, W. Bentley, Scholes, Cleckheaton. 2, J. Fortune, Keighley. *hc*, H. Beldon; J. Hodgson, Bowling. *Chickens*.—1, J. E. Walton, Horncliffe, Rawtenstall. 2, H. Beldon. *hc*, W. Ormerod, Walsden, Todmorden; F. H. Wright, Halifax.

GAME.—*Duckwing, Grey or Blue*.—1, H. C. & W. J. Mason, Birstal. *Chickens*.—1, E. Ayford, Ecclehill. 2, M. Jowett, Clayton. *hc*, G. Ambler, Queensbury.

GAME.—*Any variety*.—1, H. C. & W. J. Mason. 2, K. Walker, Woodnock, Gomersal. *Chickens*.—1, R. Walker. 2, J. F. Walton. *hc*, J. Fortune.

POLANDS.—1 and 2, H. Beldon. *Chickens*.—1, H. Beldon.

HAMBURGHs.—*Golden or Silver pencilled*.—1 and 2, H. Beldon. *Chickens*.—1 and 2, H. Beldon. *hc*, E. Clayton, Keighley.

HAMBURGHs.—*Golden or Silver spangled*.—1 and 2, H. Beldon. *hc*, J. Rollinson, Lindley, Otley. *Chickens*.—1 and 2, H. Beldon.

HAMBURGHs.—*Any other variety*.—1 and 2, H. Beldon. *Chickens*.—1, H. Robinson, Westgate, Baildon. 2, C. Sidgwick. *hc*, C. Sidgwick, H. Beldon (2).

ANY OTHER VARIETY EXCEPT BANTAMS.—1, E. Walton, Horncliffe, Rawtenstall. 2, J. F. Walton. *Chickens*.—1, J. F. Walton. 2, H. Grant, Bradford.

BANTAMS.—*Game*.—1 and 2, W. F. Entwistle, Westfield, Wyke. *hc*, G. Noble, Staithcliffe, Dewsbury; A. Sugden, Swinley, Cleckheaton. *Black*.—1, J. Walker, Rochdale. 2, H. Beldon. *hc*, S. Milner, Keighley; S. Smith, Northowram.

Any other variety.—1, J. Walker. 2, S. Pickles, Banks, Mytholmroyd.

DUCKs.—*Aylesbury*.—1 and *hc*, J. Walker. 2, J. Newton, Sidsen. *Rouen*.—1, J. Walker. 2, J. Newton. *hc*, F. E. Rawson, Thorpe; H. B. Smith, Brooklands, Bronghton. *Any variety*.—1, J. Walker. 2 and *hc*, H. B. Smith.

GEES.—1, J. Walker. 2, J. White.

TURKEYs.—1, J. Walker. 2, F. E. Rawson.

SELLING CLASS.—1, C. Carr, Wilsden, Bingley. 2, H. Beldon. *hc*, F. E. Rawson (Cavendish and Black East Indian); W. Mitchell, Birkenshaw.

The Society's Silver Cup, value Five Guineas, for the best pen of Poultry, H. Beldon.

PIGEONS.

CARRIERS.—*Cock*.—1, E. Horner. 2 and *hc*, R. Fulton. *c*, H. Yardley, Birmingham. *Hen*.—1 and *hc*, R. Fulton. 2, E. Horner.

POUTERS OR CROPPERS.—*Cock*.—Cup and 1, W. Harvey, Sheffield. 2, E. Horner, Harewood. *hc*, R. Fulton, London (2). *Hen*.—1, W. Harvey. 2, R. Fulton. *c*, R. Fulton; E. Horner.

TUMBLERS.—*Almond*.—1, R. Fulton. 2, W. Harvey. *hc*, H. Yardley; R. Fulton. *Any variety*.—1, R. Fulton. 2, E. Horner. *hc*, R. Fulton; W. Harvey.

DRAGONS.—1, W. Gamon, Chester. 2, E. Horner. *hc*, W. Smith, Walton-on-the-Hill.

TRUMPETERS.—1 and 2, R. Fulton. *hc*, W. Harvey.

OWLS.—1, R. Fulton. 2, H. Yardley. *hc*, W. Smith, jnn., Hyde; Helliwell and Ingham, Halifax.

TURBITS.—1, R. Fulton. 2, H. Yardley. *hc*, H. Beldon; T. Foster, Bingley; E. Horner.

JACOBINS.—1, R. Fulton. 2, W. Harvey. *hc*, T. Holt, Bradford; R. Fulton. E. Horner.

FANTAILS.—1, R. Fulton. 2, E. Horner.

BARDS.—1, W. Harvey. 2 and *hc*, R. Fulton. *hc*, H. Yardley; J. Thresh, Bradford; E. Horner.

MAGPIES.—1 and 2, E. Horner. *c*, H. Beldon.

ANY OTHER VARIETY.—1, R. Fulton. 2, C. Sutcliffe, Todmorden. *hc*, H. Yardley; W. Gamon, Chester. *c*, E. Horner.

ANY OTHER VARIETY.—1, W. Harvey. 2, H. Yardley. *hc*, J. Thresh; E. Horner; J. W. Forsyth, Halifax. *c*, H. Beldon.

SELLING CLASS.—1 and *c*, E. Horner. 2, W. Harvey. *hc*, H. Beldon.

The Society's Silver Cup, value Five Guineas, for the best pen of Pigeons, W. Harvey.

JUDGES.—Mr. W. Cannan, Bradford; Mr. J. Dixon, North Park, Bradford.

THE UTTOXETER POULTRY SHOW.

FROM causes on which we cannot now enter, the annual poultry Shows at Uttoxeter have been discontinued for the last few years; but on August 25th, the sixth meeting of the kind that has taken place there was held under a most ample tent in the Market Place, the pens being very nicely arranged back to back down the centre, and no better plan could be desired as to the arrangements generally than that adopted. The poultry immediately on their arrival were most carefully fed and watered, and the same unbroken assiduity was manifested towards them during the whole time of the Show.

With very few exceptions this was purposely made a chicken show, and one equally successful has certainly not been held in any part of the country during the current year. The well-matured character of the generality of the chickens betokened how much and equally well-applied care must have been taken of them by their respective owners. Again, there were numbers of chickens competing that with another month or six weeks' growth will be very troublesome rivals to shake off in the highest competition. Fifteen pens of chickens (all present), were not a bad opening class, as Dark *Brahmas* stood first on the prize schedule. The two prizes were taken by Messrs. Horace Lingwood and Thomas Ansdell. Each pen was such as must be a treat to any fancier, Mr. Lingwood's cockerel being a perfect giant, excellent in feather throughout, and with the best hackle ever seen on a young bird. The pullet with which it was mated was one of those lovely pencilled, steel-coloured ones that forcibly bring to mind the days when Mr. R. Boyle, of Dublin, used constantly to exhibit such to the (at that time), discomfiture of all opponents. The Lingwood pullet is alike all round, from the very base of both mandibles down to the very feathering on the toes; the fact being, there is not any lack of intensity of colour or markings in any portion whatever of the whole plumage. Both prize cocks are admirably clear-winged fowls, and possess breasts that are black as the raven's. So generally good was the whole class, that not less than ten pens in it received favourable notice at the hands of the Judge. Ten pens only constituted the Light *Brahma* class; in this Mr. Haines and Mr. Lingwood were the winners, closely pressed, however, by at least a half dozen pens; the whole class being in admirable condition and of first-rate quality. Messrs. Sidgwick and Crabtree came to the front in a general *Cochin* class, open to all varieties, whether White, Buff, or Partridge. Mr. Sidgwick was first with Partridge-feathered; and Mr. Crabtree, with Mr. Tomlinson close on his heels, was second. Fifteen pens of *Houdans* proved a very good class, all fair pens, and most of them singularly so; and here Mr. Wood was successful in both instances, keeping the premiums in the immediate neighbourhood. The same gentleman took both the other prizes for *French* fowls with *Crève-Cœurs*. Some of the best *Dorkings* shown this year were at Uttoxeter. Mrs. Arkwright being the monopolist of both prizes, but winning against many excellent chickens of younger date, and therefore not nearly so matured.

In *Game* fowls the Duke of Sutherland was first with the best pen of Black Reds we have seen this year, though but only recently dubbed; the second being a pen of Brown Reds, showing much quality also, but wanting age for the show pen. Only three pens of *Spanish* were entered, all good, but not quite as smooth in the face as is desirable. *Hamburghs* were a admirable, the Duke of Sutherland exhibiting strongly, and mostly with success, but with specimens that will not be at their best for perchance two months hence. Among the other most notable pens we must allude most favourably to the Rev. A. G. Brooke's *Malays*. They were Black-breasted ones, in grand condition, and abounding in Malay characteristics. *Bantams* were not, with the exception of the winning pens, at all equal to the former classes; but in speaking of the *Duck* class, open to Rouen and Aylesburys only, it is almost impossible to imagine

better than the four principal pens proved themselves to be. Rousens of specially good feather took precedence, but not without uncomfortable pressure from three pens of Aylesburys of the best type; all three pens were so perfect as to all but insure a dead heat. A fine day gave great success to the whole proceedings.

CHICKENS.

BRAHMAS.—*Dark*.—1, Horace Lingwood. 2, T. F. Ansdell. *hc*, T. H. Waterman; T. F. Ansdell; H. Chawner. *c*, E. Pritchard; W. H. Crewe; Mrs. E. Wilkinson; R. B. Wood; J. Watts.

BRAHMAS.—*Light*.—1, P. Haines. 2, Horace Lingwood. *hc*, E. Kendrick, jun.; M. Christopher; J. Benton; Mrs. F. Cheshire; H. Chawner, jun.; F. Holbrook.

COCHIN-CHINAS.—*White, Buff, or Partridge*.—1, C. Sidgwick. 2, W. H. Crabtree, *hc*, C. Sidgwick; H. Foulinson. *c*, Rev. R. Fildes.

HOUDANS.—1 and 2, R. B. Wood. *hc*, G. W. Hibbert; G. D. Harrison; R. B. Wood; W. Dring. *c*, G. D. Harrison.

CREVE-CEURS, LA FLECHE, or BREDA.—1 and 2, R. B. Wood (Creve-Ceurs). *c*, W. Dring (Creve-Ceurs).

DORKINGS.—1 and 2, Mrs. Arkwright. *hc*, R. Cheeseman; M. Murray. *c*, Rev. — Bartram.

GAME.—1, Duke of Sutherland. 2, G. Bentley. *hc*, T. P. Lyon; C. Minors. *c*, E. Bell; J. Lane.

SPANISH.—1, G. H. Chilcott. 2, E. Winwood.

HAMBURGS.—*Gold or Silver-spangled*.—1, J. Long. 2, T. May. *hc*, J. Ward; Duke of Sutherland. *c*, J. Slater.

HAMBURGS.—*Gold or Silver-pencilled*.—1 and 2, Duke of Sutherland. *hc*, J. Long; W. Clayton.

ANY OTHER VARIETY.—1, Rev. A. G. Brooke (Malay). 2, Duke of Sutherland (Black Hamburg). *hc*, E. Kendrick, jun. (Black Cochins); L. Nash (Black Cochins); T. Boulton (Black Hamburg).

ADULTS.

ANY VARIETY.—1, W. Catlack, jun. (Creve-Ceurs). 2, J. Long (Silver Poland). 3, R. B. Wood (Creve-Ceurs). 4, J. Watts (Brahmas). *c*, E. Winwood.

BANTAMS.—*Game*.—1, J. Mayor. 2, A. Ashley. *hc*, — Baskerville (2); Duke of Sutherland; A. Smith.

BANTAMS.—*Any variety except Game*.—1, W. H. Robinson (Black). 2, A. Ashley (Sebright). *hc*, F. Holbrook (White-footed); R. H. Ashton (Black).

COTTAGERS' CLASS.—*Any variety*.—1, J. Lane (Black Red). 2, W. Cops (Golden spangled Hamburgs). 3, T. Gould (Cuckoo Dorkings).

DUCKS.—*Rouen or Aylesbury*.—1, Duke of Sutherland. 2, J. Hedges. *hc*, H. Chawner; W. H. Crewe.

Mr. Edward Hewitt, of Sparkbrook, Birmingham, was the Judge.

UNITING SWARMS.

ALL earnest writers on subjects of bee history and management, find that their own productions are defective and incomplete. Their ability is not equal to the work in hand. Some things are forgotten; some things are not thoroughly understood; and others well understood are not stated clearly enough for a great number of writers. I suppose all human efforts are marked by imperfection. The straightest line ever drawn by man is somewhat crooked under the scrutiny of the microscope.

Information was lately sought and given on driving and uniting bees. More inquiries on the same subjects are to hand. Every week we are receiving evidence of great and enlightened progress made in bee-keeping throughout the country. This morning a letter of thanks has been received from a bee-keeper at Tiverton, near Bath. He says, "In driving my bees according to your instruction I have succeeded better than I expected. From the hive I mentioned I have obtained nearly 40 lbs. of honey; there was but little brood in it. I have driven another hive with about the same results. These swarms are fed with a pound or more of syrup every day. The idea of driving bees is a novel one in this neighbourhood. Old bee-keepers say the bees will not survive the winter, but I am sanguine as to the result." The same post delivered another letter from a village in Banffshire, asking for a market for honey. The writer says he has "turned out some swarms and found their hives quite full of honey. Had I come across your instructions sooner more money would have been in my pocket. I can now apprehend what large hives and large swarms mean, I assure you. In the paths of apiculture you have many followers in this part of the country, and this year we have had extraordinary success."

In answer to the questions of "R. E. H.," we have to say that after a swarm has been driven into an empty hive, they are not driven in like manner "into another inhabited hive." They are cast or thrown in at one stroke. If done as described last week there will be no fighting. One of the queens will be killed and cast out. If one of the queens is too old for keeping, it is wise to kill her before the union takes place; thus the younger one will be preserved amongst the united bees. In cases where stocks cannot be brought together and united, "R. E. H." asks, "What is to be done to overcome the tendency of bees to return to their former stand, and there lose their lives?" Last week we said there was but little risk or danger if all the hives were removed at the time of union from their former position; but suppose all hives cannot be removed, how can the bees of a honey hive be preserved?

1 2 3 4 5 6
O O O O O O

Let us say that we wish to take the honey from No. 5, and put its bees into 1 and 3. Can this be done safely? No, the bees would go back to their old position, and probably be killed at the doors of 4 and 6. In such a case we drive the bees out of

No. 2, and unite them to 1 and 3; then the bees of No. 5 are driven and cast into No. 2, which takes the place of No. 5. Thus by a very simple process we get the hive of honey, and strengthen 1 and 3 with bees without the loss of life.

After all that can be said and taught, much must be left to the ingenuity of the bee-keeping community. The Scottish bee-keepers, as a whole, need but little stimulus and instruction now. A little more experience and practice will convince them that they are in the vanguard of the apian army. The little leaven that is now working among the rural population of England will by-and-by leaven the whole. Put large hives into the hands of the cottagers of England, and these will put a large revenue into their pockets. The £ s. d. gained go a long way to clear off the fogs and widen the landscape. Large hives and good management go nearly hand-in-hand, though they generally stand in the relation of parent to child. The question of finances in bee-keeping, as in farming and market-gardening, is the most up-lifting and successful.—A. PETTIGREW.

BEE PHENOMENON.

IN the beginning of July Mr. Boulton, a tradesman of Ulverston, North Lancashire, called my attention to a hive of bees, pure Ligurians, in which were two young queens working together, and requested me to send particulars to the leading bee journals. So far no parallel case has been published, and I now append you a further history of the hive.

The bees were a last-year's swarm, and were enclosed in one of Woodbury's bar hives. All went well until the spring, the swarm being a very strong one; later on, however, it was noticed that the swarm was not doing well, and it was believed that the queen was dead. This belief led to an examination about the middle of June, and a queen's cell was discovered, and a young queen was seen amongst the bees. There was no worker brood in the hive, but a little drone brood was noticed. On the 28th of June Mr. Boulton was in his garden with several bee-keepers, friends of his, when he opened the hive to see how the young queen was progressing. The first bar was full of brood on each side, and had on it a young queen; the next was empty, but the third also was full, and had likewise a young queen. They continued on their separate bars for about a week, and on the 3rd of July another examination showed them to be on the same bar, but on opposite sides. A week later and they were found on the same side of the bar, distant only an inch from each other, and in the midst of the bees, working together in apparent concord. More recent examinations have shown them in different positions in the hive, sometimes on one bar, sometimes on separate ones. The broods from each were of the same age and in the same state, showing that both had commenced laying at the same time. One queen was a small one, and the colour not so good; the other was large, and of a beautiful yellow. During August several examinations were made, but the smaller queen has not been seen; but as examination was very difficult, owing to the fulness of the hive, it was hoped that she might turn up. A thorough search was made on Monday week, but the result was a failure, and she has evidently been killed.

The theory of bee-keepers here is, that in consequence of the loss of the old queen the bees had proceeded to hatch two young ones, and seeing the weakness of the hive, had allowed both to live until the hive was replenished and strong enough to do with one, as it is now, for they are making honey fast. Mr. Boulton's friends wished him to divide the hive into two, but he firmly refused, being anxious to see the result.—BETA.

THE PLURALITY OF QUEENS IN A HIVE.

YOUR correspondent Mr. Boulton's having two fertilised queens working harmoniously together in one hive is so singularly exceptional that no satisfactory explanation can be given of it. If the witnesses were competent, who dares question their evidence? We were told that many apianians saw both queens at work in the hive at the same time. This phenomenon is of a remarkable character. I shall be glad to hear again of Mr. Boulton's hive, and whether both queens are still alive, for I have never found bees that would permit two queens to live in their hive; and, moreover, I have never known two fertilised queens live long together. My experience is pretty extensive, comprising the hatching of thousands of queens and unions of swarms. In every case one queen only has been kept in a hive, and one queen is, by reason of her fertility, as good as twenty.

An apianian in our neighbourhood has now two swarms in a large box, separated by perforated zinc. The experiment is made to find out whether both swarms will work harmoniously together in filling one super over both. Doubtless the swarms will become one, and work as one in filling the super. But will both queens be permitted to reign jointly or separately? When the experiment in question was first mooted, I predicted that one of the queens would be destroyed. About a fortnight ago I was told that one of the queens was found alive in front of the

hive, and was again put into one of the compartments of the box. By-and-by we may hear whether both queens are alive or not. In Mr. Boulton's hive there is no partition separating the queens and communities. In his hive the old queen died, or was lost. Two young ones were seen to leave their cells. All this is natural and usual; but why both were permitted to remain together is the marvel. Old queens in their dotage are invariably cast out of their hives before their successors are hatched. I have never known it otherwise, and in the swarming season I have never known young queens perfected at the time of the old ones leaving their hives with first swarms. If the weather be unfavourable for swarming, the young queens are torn out of their cells a few days before they are matured. If the weather become more propitious, eggs are again set in royal cells before the swarms leave. When the young queens come to perfection, the well known sounds of piping may be heard. Sometimes two queens go with the second swarms, and sometimes four or five more are left in the mother hives; but all are destroyed but one. This is the usual order of events, and I have all through life considered that the laws of a bee hive in this matter are as unalterable as the laws of the Medes and Persians. The queens in Mr. Boulton's hive are Ligurians.—A. PETTIGREW.

OUR LETTER BOX.

PIPPED BRAHMA COCK (J. D. E.).—The poultry-keeper is quite right; the horny substance at the tip of the tongue should be removed, and nothing does it so effectually as the thumb nail. All fowls do not require it, but where it is necessary it should be done promptly.

BREEDING DARK BRAHMAS (Amateur).—You may go on one year breeding from the two hens, and the best of the cocks you had from the three purchased birds. You must keep them strictly by themselves. We do not believe in strains any more than in men that measure 6 feet 3 inches. When you have examined the prize pen at Birmingham, and are determined to have some of the same blood, usually you will be astonished at the difference between the birds you saw and those you bought. The breeders of first-prize birds put the best specimens they can find wherever they see them. They breed a great many, and show their best, but it is "midsummer madness" to fancy they are anything like the average of the yard. The celebrated Lord Rivers was asked once the secret of his having so many good greyhounds, his answer was, "I breed well and hang well;" and so we advise you to hide your time, to keep the two hens and the two best pullets you have bred in a state of single blessedness until you meet with a cock to your mind at some of the great shows. A good horse is never a bad colour, and the cock possessing all the attributes you seek cannot be unfit for your purpose.

POUTERS' LEGS PARALYSED (Item).—There is no cure for paralysis in a Pigeon when it is thoroughly developed, but if the case be a curable one the treatment is repeated doses of castor oil. Each dose a teaspoonful.

BREEDING ROSS COCHINS (E. B.).—You can hardly expect much success if you breed from the old bird. You say he is small; his progeny will not be large, and size is an important thing in Cochins. If you object to buy, put the old bird with the pullets, and a cockerel with the hens. Hatch as early as you can, and feed well from the first.

CROOK SHOW.—Mr. W. J. Frank informs us that he took the first prize in the Brahma class.

ROCHDALE POULTRY SHOW.—Mr. J. H. Pickles informs us that he received the second prize in the Brahma cockerel class.

BOOK ON HOMING PIGEONS, &c. (A. K. C.).—The only work we know is "The Homing or Carrier Pigeon," published by Routledge, price 1s. We do not know where traps for letting the birds in and out of a loft can be procured. Perhaps some reader may be able to give the required information.

HIVE UPON HIVE (W. E. M.).—The bees in your top hive should be driven out and put into the nadir or hive under it. The great bulk of the honey will be found in the upper hive. If the nadir has not honey enough in it for winter let it be fed at once, and probably another hatch of brood will be obtained, making it strong in bees for another year. If the upper hive contains brood about one-fourth of the bees could be left to hatch it, but the queen should go into the bottom hive. We advise you to put all into the nadir, and take the honey now.

UNITING BEES (A Bee-keeper).—You inform us that by shaking a swarm on a cloth, and placing a hive of bees on two sticks over the bees, you failed to unite them; that one of the swarms killed the other. We have to inform you that you will probably fail a second time if you make an attempt in the same way. If you had shaken both swarms on the cloth, and let all creep together into one hive, you would likely have succeeded; but this is not our mode of uniting swarms. The hive to receive the swarm is first fed by sprinkling minted syrup amongst its combs and bees. In about twenty minutes after this is done the swarm of bees to be added to it is cast or thrown in amongst the rest, sprinkled over with the scented syrup, and placed on its board. Properly done, this is an infallible way of uniting swarms. We could undertake to unite one thousand swarms of bees in this fashion without once failing. In your attempt you did nothing to prevent the bees from knowing and killing strangers. It is always well to leave nothing to chance.

VARROES (B. E.).—Turn up your hives and examine their combs; you would learn more from one look than from our answers to your questions. You ask, "Do queens lay eggs and bees hatch brood all through the winter?" No. Queens cease to lay in autumn. An examination will let you know when the brood is all hatched. Brood combs do not hang separate from honeycombs, but the brood is usually in the centre of the hive, and is easily distinguished from the honeycomb, which is usually above and around the brood combs. The lids over brood cells are convex, those over honey cells concave, altogether different in appearance. In answer to your first question we have to say that usually there is no brood in a hive three weeks after it has swarmed, and during autumn and winter. Honey can be taken from a hive before its brood is all hatched.

SMALL BIRD (J. Thompson).—Your description agrees with that of the Redpole Linnet, *Fringilla Linaria*. Its song is clear and loud. There is a

very pleasing account of it and its habits in Magillivray's "British Birds," and in Brent's "Song Birds," which you can have by post from our office if you enclose twenty postage stamps with your full address.

DAMSON WINE (J. C.).—Put $\frac{3}{4}$ lbs. of sugar to every gallon of water, boil and skim it for two hours, and to each gallon add 5 lbs. of stoned damsons; boil these till the liquor is of a fine red colour, strain it through a sieve, and ferment it in an open vessel for four days. On pouring it off from the lees clean the vessel, and put in the liquor to finish the fermentation; close it well for six or eight months, and when fine bottle it off.

MINTED SYRUP (B. E.).—Minted syrup is sugar and water strongly scented with mint. Grated nutmeg is quite as efficacious as mint in the syrup.

BERKSHIRE PIGS (Dairy Farmer).—It requires a practised eye to distinguish which "at all points is the best." The Berkshire pig is usually of a tawny white or rufous-brown colour, spotted with black or brown; head well placed; large ears, generally standing forward, though sometimes hanging over the eyes; body thick, close, and well made; legs short, small in the bone; coat rough and curly, wearing the appearance of indicating both skin and flesh of a coarse quality. Such, however, is not the case, for they have a disposition to fatten quickly; nothing can be finer than the bacon, and the animals attain to a very great size, averaging from 50 to 60 stone, although they have not uncommonly reached to the prodigious weight of 100 stone and upwards.

METEOROLOGICAL OBSERVATIONS,

CAMDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 6" W.; Altitude 111 feet.

DATE.	9 A.M.					IN THE DAY.					Rain.
	1874. Aug. and Sept.	Barom- eter at 32° at Sea Level.	Hygrome- ter.		Direction of Wind.	Temp. of Wind at 1 foot.	Shade Tem- perature.		Radiation Temperature		
			Dry.	Wet.			Max.	Min.	In sun.	On grass	
Inches.	deg.	deg.	N.	deg.	deg.	deg.	deg.	In.	—		
We. 26	30.111	59.6	55.0	N.	61.9	71.6	46.4	94.1	46.0	—	
Th. 27	29.884	6.4	58.7	S.W.	61.2	72.2	38.7	114.0	47.1	0.04	
Fri. 28	29.864	61.3	56.8	S.W.	61.3	71.6	50.7	117.7	49.6	0.071	
Sat. 29	29.790	55.9	55.6	S.	60.7	68.0	54.1	112.2	49.0	0.100	
Sun. 30	29.940	62.0	58.0	S.W.	60.3	71.8	47.0	117.3	46.5	0.025	
Mo. 31	29.847	65.8	61.0	W.	60.5	73.5	58.0	121.8	56.2	0.75	
Tu. 1	29.750	70.9	66.0	S.	61.8	74.0	61.8	104.7	59.1	0.070	
Means	29.879	62.1	58.7		61.0	71.8	52.1	111.7	50.5	0.405	

REMARKS.

26th.—Occasionally hazy, but a fine day and splendid night.

27th.—Rather dull, but fair all day. evening and night rainy.

28th.—A very pleasant though rather cloudy day; wind high in the evening.

29th.—Rainy morning, a day of sunshine and showers, beautiful rainbow about 5 P.M., wind rather high.

30th.—Fine morning, sharp shower between noon and 1 P.M., fine afternoon, but rain again in the evening.

31st.—Fine morning, several showers and high wind, but some very bright sun.

Sept. 1st.—Fair early, but a very uncertain day, and very dark about 6 P.M.

A week of very unsettled weather, sometimes very bright and warm, at other times boisterous, wet, and cold. The mean temperature a trifle below that of the preceding week.—G. J. SYMONS.

COVENT GARDEN MARKET.—SEPTEMBER 2.

THE last few days of unfavourable weather for the gathering of fruit has somewhat limited the supply, and the demand has also slackened, trade generally not being so good. Out-door Peaches and Nectarines rather in excess. Hothouse Grapes and Pines ample.

FRUIT.

	s. d.	s. d.		s. d.	s. d.
Apples.....	4 sieves	1 0 to 1 6	Mulberries.....	per lb.	1 0 to 0 0
Apricots.....	doz.	2 0 4 0	Nectarines.....	doz.	3 0 8 0
Cherries.....	per lb.	0 0 0 0	Oranges.....	per 100	12 0 21 0
Chestnuts.....	bushel	0 0 0 0	Peaches.....	doz.	3 0 10 0
Currants.....	sieve	4 0 0 0	Pears, kitchen.....	doz.	0 0 0 0
Black.....	doz.	0 0 0 0	dessert.....	doz.	2 0 3 0
Figs.....	doz.	3 0 4 0	Pine Apples.....	lb.	2 0 6 0
Filberts.....	lb.	1 0 1 6	Plums.....	4 sieves	3 0 4 0
Gobs.....	lb.	1 0 1 6	Quinces.....	doz.	0 0 0 0
Gooseberries.....	quart	0 6 0 0	Raspberries.....	lb.	0 0 0 0
Grapes, hothouse.....	lb.	1 6 6 0	Strawberries.....	per lb.	0 0 0 0
Lemons.....	per 100	16 0 24 0	Walnuts.....	bushel	10 0 16 0
Melons.....	each	3 0 6 0	ditto.....	per 100	2 0 2 0

VEGETABLES.

		s.	d.	s. d.			s.	d.	s. d.
Artichokes.....	doz.	8	0	0	Lettuce.....	doz.	1	0	2
Asparagus.....	per 100	0	0	0	Mushrooms.....	pottie	2	0	3
French.....	doz.	0	0	0	Mustard & Cress.....	punnet	0	2	0
Beans, Kidney.....	4 sieve	3	0	4	Onions.....	bushel	3	0	5
Broad.....	bushel	4	0	0	pickling.....	quart	0	8	0
Beet, Red.....	doz	1	0	8	Parsley per doz. bunches	2	0	4	0
Broccoli.....	bundle	0	9	1	Parsnips.....	doz.	0	9	1
Cabbage.....	doz.	2	0	8	Peas.....	quart	1	0	1
Capiciums.....	per 100	0	0	0	Potatoes.....	bushel	2	0	4
Carrots.....	bunch	0	0	1	Kidney.....	doz	3	0	5
Caulif. wfer.....	doz.	3	0	6	New.....	per lb.	0	0	0
Celery.....	bundle	1	8	2	Radishes.....	doz. bunches	1	0	1
Coleworts.....	doz. bunches	2	6	4	Rhubarb.....	bundle	0	9	1
Cucumbers.....	each	4	1	0	Salsafy.....	bundle	1	6	0
pickling.....	doz.	0	0	0	Scorzoneria.....	bundle	1	0	0
Endive.....	doz.	2	0	0	Sea-kale.....	basket	0	0	0
Fennel.....	bunch	0	8	0	Shallots.....	lb.	0	3	0
Garlic.....	lb.	0	6	0	Spinach.....	bushel	2	0	8
Herbs.....	bunch	0	3	0	Tomatoes.....	doz.	1	0	3
Horseradish.....	bundle	3	0	4	Turnips.....	bunch	0	3	0
Leeks.....	doz.	0	3	0	Vegetable Marrows.....	doz.	1	0	2

WEEKLY CALENDAR.

Day of Month	Day of Week	SEPTEMBER 10—16, 1874.	Average Temperature near London.			Rain in 43 years.	Sun Rises	Sun Sets.	Moon Rises.	Moon Sets.	Moon's Age.	Clock after Sun.	Day of Year.
			Day.	Night.	Mean.								
10	Th	Brighton Horticultural Show closes.	49.7	45.5	57.6	21	28 45	35 46	46 4	39 6	●	3 7	253
11	F	Bury St. Edmunds Show.	48.7	47.0	57.8	11	30 5	33 6	58 5	50 6	1	3 27	254
12	S		49.1	44.8	57.0	16	32 5	31 6	8 7	0 7	2	3 48	255
13	Sun	15 SUNDAY AFTER TRINITY.	64.4	45.7	57.0	19	33 5	18 6	18 8	10 7	3	4 9	256
14	M		67.0	46.1	56.5	22	35 5	16 6	28 9	22 7	4	4 30	257
15	Tu	Kilmarnock and Ayr Horticultural Show.	67.5	45.9	56.7	16	36 5	11 6	40 10	36 7	5	4 51	258
16	W	Kempfer born, 1651.	68.4	46.8	57.6	16	38 5	12 6	54 11	54 7	6	5 12	259

From observations taken near London during forty-three years, the average day temperature of the week is 68.4°; and its night temperature 45.9°. The greatest heat was 88°, on the 13th, 1865; and the lowest cold 23°, on the 12th, 1867. The greatest fall of rain was 0.90 inch.

VEGETABLE CULTURE AND SUPPLY.

A CHAPTER ON WAYS AND MEANS.



VEGETABLES succulent, tender, abundant, and of the highest order of excellence, of every kind in its season, natural or artificial—that is to say, either from the open garden or by means of artificial heat, are so much and so generally appreciated, that a somewhat clearer knowledge of the ways and means that are more or less necessary for their culture appears desirable.

It may, I think, be very safely premised that vegetable culture generally is not at all what it ought to be, not so much regarding quality as quantity. It is the regular unfailing supply, leading steadily onwards throughout the year from crop to crop, from one kind to another in unceasing flow, that is required, and not a series of fitful crops upon which little reliance can be placed; for a good crop of any popular vegetable that is not promptly followed by others of the same or kindred sorts serves but to whet the appetite, and create wishes and expectations that are doomed to disappointment. That the efforts of many an earnest man are crippled and often rendered altogether futile by evils which it is totally out of his power to overcome is undoubtedly correct enough, and to such I offer my hearty sympathy; for I write in no carping spirit, but with a sincere desire to assist them. In trying to do this, general terms only can be used, for it is impossible to frame arbitrary rules that would apply in every case, each presenting its peculiar features which must be treated solely on its merits. We must adapt ourselves, and therefore our measures, to circumstances, and it is only by doing this thoroughly but cautiously that we may hope to conquer the difficulties that invariably arise.

Now there are three things that are indispensable for every garden—water, manure, and labour power; give me these and I will not care much about soil, situation, or any minor details; only let me have enough of these three grand powers, and I will undertake to maintain a full supply of high-class vegetables in spite of ungenial seasons. Be very sure this assertion is made in no boastful spirit, the writer has had too many battles to fight, too many difficulties to grapple with, to indulge in empty boasting; if it were not so these notes would not now be written.

No really good vegetables can be grown without abundance of moisture in the soil, and when it is asserted that certain summer crops—such as Celery, Spinach, Turnips, and Lettuce—have run to seed prematurely, and the weather is blamed, experience plainly tells one that it is not so much the weather as the culture that is at fault; either nutriment or water—perhaps both were wanting. Mark, now, I did not say the cultivator, but the culture; for when a man has diligently applied every means at his disposal, and then has to endure the bitter mortification of looking forward to inevitable failure simply because he cannot obtain the materials wherewith to finish what he began so well, he certainly merits pity, and not blame.

I said that I should be indifferent as to the nature of the soil, but it is obvious that one could only feel so with an ample staff of labourers; restrict this when the soil is bad and failure must follow. It is altogether useless for anyone to say that a given area of land only requires a stated number of men to cultivate it thoroughly. Nothing can be more unsound or more calculated to mislead than such a statement, and to prove this as clearly and forcibly as possible I cannot do better than describe a little of my own experience.

A few years ago I had charge of a garden which had been under tillage for several centuries. It was a small garden, and I do not suppose any great amount of science or skill had ever been brought to bear upon its culture; however, rough-and-ready as it was, the practice of successive generations of quaint old gardeners through all this long course of years, during which the land and people were undergoing a gradual change from a wild state to culture and civilisation, it was very evident that those of later date had kept the soil well stirred and renovated with abundance of manure, and so for once I found a deep yet light rich loam requiring nothing more than a very easy routine of seasonable manuring and digging to produce excellent vegetables. The garden which I now have presents as striking a contrast to this as could well be found. It is quite new, having only been under cultivation for about three years, and previous to the clearance of the site it was covered principally with a stunted undergrowth of Oak and Holly, interspersed with immense beds of Whortleberry. It is on the Wealden formation, and the soil contains a very large percentage of silica, distributed in such minute particles that a heavy shower or two will batter the surface into a hard close mass, which then looks as impenetrable as a paving stone. Taken in its virgin state it was almost barren, and the results of a series of trial crops showed that the seeds of most vegetables would barely vegetate in it, and what young plants came up soon dwindled away, even Jerusalem Artichokes and Horseradish failing to do more than put forth a few weakly shoots, the strongest roots dying the first season. To take such a soil in hand, in view of meeting the requirements of a large establishment, was to begin at the beginning with vengeance. Draining, trenching, frequent digging, with heavy and repeated dressings of manure and ashes are slowly but surely effecting a radical change. I use the term slowly advisedly, for although an ample supply of vegetables is now obtained, yet the soil requires a special preparation for each crop. Thus, for example, in such a simple matter as a bed of Cabbage, a plentiful dressing of manure is given; but in digging, the hard clods of crude soil are not to be broken with the digging forks, but have to be got to pieces afterwards with Canterbury hoes, then crushed with an iron roller, stirred a second time with hoes, and sometimes when the weather is very dry it has actually been found necessary to use water before the soil could be reduced to the requisite condition of fineness. Then for every row of plants a deep furrow is made, and filled with leaf mould, or a mixture of soil and

manure, such as a spent hotbed affords, and in this the Cabbages are planted. Lettuce and other salad plants are treated in a similar way. Peas and Beans are sown upon trenches filled with dung as for Celery, and similar trenches are prepared for Jerusalem Artichokes.

If it were necessary many other similar details might be added, but I think enough has been stated to illustrate the contrast with sufficient force and clearness, and to show how greatly one garden may differ from another, and therefore how it is possible for two gardens of equal size and presenting a very similar appearance to require a diametrically opposite mode of treatment, a greater or lesser number of men, more or less seeds and manure, and consequently a very different expenditure, to obtain equal results. The foregoing example of a poor soil is undoubtedly an extraordinary one, such as is very rarely to be met with; but there are many gardens where difficulties of a similar, though modified, nature exist, and which are only to be overcome by a proportionate allowance of each of my three grand powers. It is surprising to find new gardens being constantly made without any care or provision for a supply of water, and yet it is an acknowledged fact that in the majority of summers the success of many of our most important crops depends almost entirely upon its constant use.

Now this is what the culture of good vegetables amounts to: Get your land into good culture and keep it so. Follow a regular method of cropping, but let it be an elastic one—that is, not ruled so strictly by certain dates as by the peculiarities of the seasons. In providing seeds, always allow a margin for failure, just as in calculating the quantity of vegetables that will be required, you allow a certain surplus for visitors and dinner parties. Never allow vegetables to sustain any check, particularly from drought, but always strive to maintain a vigorous growth from the sprouting of the seed till the crop is fit for use; to which end there must be a soil that is well drained, sweetened by exposure to the air, especially in winter, containing plenty of rich manure, well watered, and with the surface frequently stirred and opened-up with hoes and forks. Let your tools be light, strong, and in good working order; and lastly, death to the weeds.—EDWARD LUCKHURST.

POINSETTIA PULCHERRIMA CULTURE.

DURING the winter a lack of bloom in the conservatory and other glass structures is too frequent, yet this might to a certain extent be obviated by a little more forethought on the part of the gardener. Again, where sufficient bloom exists, there is too often such a sameness of colour in the arrangement that a feeling of disappointment instead of pleasure is apt to take possession of the mind of the observer. To obviate this, I advise a few dozen Poinsettias being grown. No plant at that season excels it for table ornament, conservatory decoration, or for the manipulation of the bouquetist, to whom its brilliant crimson bracts are invaluable.

The plant may be grown in a greenhouse temperature, but to secure an abundance of vivid green foliage, and heads varying in diameter from 15 to 20 inches, I advise the following mode of culture to be adopted:—As soon as the plants have finished flowering they should be removed into a late vinery or other suitable place, and be gradually dried-off in order to cause their wood to ripen. This will have taken place by the end of March or beginning of April, when they must be cut-back to two or three eyes. The eyes on those shoots removed should be cut off and be inserted singly in the centres of thumb-pots, crocked and filled with a compost of peat, leaf mould, loam, and sharp sand in equal quantities. They should be plunged in a bottom heat of 70° Fahr., and in the course of a month or six weeks they will strike root. As soon as this has taken place they must be repotted into 1-inch pots in a mixture of peat, loam, and well-rotted sheep or deer dung in equal quantities. A few handfuls of powdered charcoal should also be added to the compost, and it will be found that crocking the pots with lumps of the same material will tend to promote a brilliantly green foliage. They should be placed in a pit or frame as near to the glass as possible, and on a firm bottom of cinder ashes; and a day temperature of 65° or 70° must be maintained. A little air should be admitted on favourable opportunities, but on no account must the plants be subjected to draughts, which in nine cases out of ten are the cause of their leaves turning yellow and falling off. They should also be slightly syringed overhead every evening, previous to leaving them for the night, with water from which the chill has been taken off.

By the end of August it will be found that the roots touch the sides of the pots, and the plants will then require another shift. This time they should be placed in 6-inch pots and in a similar compost, and they may be again set in their old quarters, the pit or frame.

From the first they must be kept well supplied with water at the root, and as I have previously mentioned, their foliage all through the growing period should be slightly syringed every evening with chilled water. As soon as they are established in the latter pots they should be watered solely with liquid manure made from sheep or deer dung, with the addition of a little soot. At the end of September they should be removed into a span-roofed house if possible, where a minimum day temperature of 70° is maintained. The Cucumber or Melon house might be made convenient for them. From this period they will not require syringing overhead, but a moist temperature should be secured them by keeping the evaporating pans filled with water, and by occasionally damping the floor and walls of the house. Eyes struck and treated in the above manner form excellent objects for table and other ornament; but they will not, of course, form such large specimens as the parent plants, to which I will now turn my attention.

The plants on being cut down should be watered but very sparingly until they have commenced to break. As soon as this has taken place the old soil should be carefully shaken from the roots, and they should be potted-back—that is, be placed in pots a size or two less than those in which they were formerly growing, and in a similar compost to that recommended above for striking the eyes. They may be placed along with the former, and as soon as the roots touch the sides of the pots they must be again repotted. This time a similar compost to that recommended for the eyes after they have struck root should be used, and if a few extra large specimens be desired at this period, two or more plants may be placed in a pot together. As soon as they have become established in these pots their tops should be nipped-off, which will cause them to throw out lateral shoots. The tops may be made use of as cuttings, and will form nice little plants by the end of the year. The plants should now be staked, care being taken to slightly bend the strongest and most robust shoots in order to divert the sap to those of less magnitude. Similar attention to watering, &c., to that recommended for young plants must also be paid them, and the result will be all that can reasonably be desired.—EDWARD FREEMAN, *The Gardens, Blundeston Lodge, Lowestoft.*

THE PELARGONIUM SOCIETY.

BELIEVING, as I do, that the ultimate success of the Pelargonium Society, so auspiciously inaugurated at South Kensington on the 2nd inst., will depend upon the support and encouragement it receives at its outset, I shall be excused for earnestly appealing for the immediate co-operation of all interested in its welfare. First, to my brother workers for the improvement of the Zonal Pelargonium, for whom it is hoped by the Society's promoters that it may constitute a bond of union between us, and be the medium of introduction to the goodly fellowship of kindred spirits, as well as the means of affording mutual assistance in carrying out our undertaking, and to whom perhaps the Society may be considered more especially to belong. I appeal also to horticulturists generally, be they amateurs or professional, Pelargonium growers or not, for aid and support; begging of all to bear in mind that horticulture, whether regarded and esteemed as a science, or its popularity desired commercially, its success and advancement will mainly depend upon the improvement of our fruits and flowers, and upon union amongst ourselves.

Having urged upon my friends the necessity for their aid, I will pass on to consider the best means of developing the Society, and forwarding the object it has in view.

The first step the Society deemed it expedient to take was to offer the highest amount of prizes its means (at present) admitted, as supplementary to those offered by the Royal Horticultural Society for Zonal Pelargoniums at their Show to be held in July, 1875; considering that by offering some liberal prizes in addition to theirs, a large and well-grown collection of all the best varieties would be secured.

If the prizes offered produce what the Society has a right to expect, the raisers of novelties would be enabled to compare notes, to profit by experience, and probably be stimulated to increased exertions; while the public would be afforded an

opportunity of forming a correct estimate of the value of Zonal Pelargoniums for conservatory decoration. The display on the last occasion, with the exception of the collections that competed for Mr. Pearson's prize, was most miserable in all the flowering sections, and there could not perhaps be a better argument in favour of this new Society.

Nothing would tend more, in my opinion, to render the Zonal Pelargonium popular than to show the public the wonderful progress that has been made within the last few years in this tribe of plants by an exhibition of well-grown specimens of the newest and best varieties. The flowers of the Zonal section have attained to such a state of perfection as to challenge the criticism of the florists, and the Nosegay varieties produce such gorgeous trusses, that they require only to be seen to be appreciated.

I quite agree with the remarks made by Dr. Masters at the meeting, that the Zonal section of the Pelargonium family is not the only one that might with advantage be improved, and to which encouragement should be afforded; for, with him, I believe that much could be done with the Cape species, amongst which there are the greatest variety and brilliancy of colour. Moreover, I see no reason why the size of the petals of the Cape species should not be increased.

I am of opinion that it is to these varieties of the Cape species that we shall have to look for our future bedders, for the large and perfect flowers of the florists' class of Zonals are not adapted for bedding purposes, and Mr. Pearson and Mr. Frank Miles, who is close upon Mr. Pearson's heels, are working such wonders in the Nosegay section, that it also is becoming too good for the purpose; in fact, it is a positive sacrilege to expose such lovely trusses of flowers as I saw in the house at Chiswick upon a variety named Mrs. Turner to the buffets of our ungenial climate. Compare also many of Mr. Pearson's other varieties that are in the beds, and flowering in the house too, and I think all will agree with me that they are magnificent for conservatory decoration, but that his industry has lifted them beyond their bedding era, and that the time has arrived for other species to be cultivated to supply their places.

When going over the beds at Chiswick a few days since, one of the most experienced of the Floral Committee remarked that he knew of no variety so effective as a bedder as Indian Yellow. I quote this remark as bearing out my opinion, that it is not the size of the truss, or of the individual flower, but rather the smallness of both, provided there is floriferousness, that makes the best bedders.

I strongly urged at our inauguration meeting against the title of our Society being restrictive, hoping that its funds might some day admit of offering encouragement for the improvement of all the sections and species of the Pelargonium family.

There are many matters connected with our subject that might be taken in hand by the Society with advantage. The classification of the Zonals, so-called, requires rectification; for under the present improved state of the Nosegay section it is almost impossible to decide upon a line of demarcation, causing frequent difficulty to the judges at exhibitions. The nomenclature of all the sections, too, is most unscientific, if not absurd; for instance, "Zonal," applied to plants without a zone. As for the term "Nosegay," it is positively ridiculous! The "large-flowering" varieties are now not much larger than our scarlets. "Fancies" suggest the question, Whose fancies? "French" to some varieties raised in England. Surely there is room for improvement here as much as in our flowers.

At our first meeting I broached a matter relative to the cultivation of the Zonals at Chiswick, which I consider one of much importance—viz., a proposition that all new varieties should for the first season be cultivated in pots under glass; so that, standing side by side, the new varieties could be readily compared one with another, and with all the best of the older varieties which would be under cultivation in the same house. These old varieties much require sorting and sifting this autumn, so that the inferior varieties might be thrown out and cancelled from the lists. By the adoption of this permanent exhibition, a much surer judgment could be formed of the value of new varieties, and the plants, moreover, would be in a better condition, instead of, as is too frequently the case, partially denuded of their petals by the shaking of a long journey. The following season they would, of course, be bedded-out, and thus an opinion could be given of their qualifications in both capacities.

These trials, too, would afford ample opportunities for all concerned in their circulation to make their notes, and amend their lists, and prepare themselves for purchasing and propagating prudently. I would suggest that our annual meetings should be held at Chiswick the day following the Pelargonium Show at South Kensington. We should be on the spot to discuss the novelties, and, from the experience of the previous day, in the best possible position to arrange the prizes and other matters for the following year.—JOHN DENNY, *Stoke Newington*.

THE MIDLAND COUNTIES HORTICULTURAL EXHIBITION: A RETROSPECT.

THERE is oftentimes a good deal of benefit to be derived from a retrospect. I propose to indulge in one, and to make an attempt to render it beneficial to all who are engaged in the conduct and management of horticultural exhibitions in general, by telling something about the events of the exhibition week at Birmingham in July last, and some of the lessons I learnt from them.

Mr. Quilter adventured on a bold experiment when he decided to set aside a sufficient sum of money to cover the expenses of an exhibition, such as that recently held at the Lower Grounds, where the prizes were £1200, and the other disbursements on an equally large scale. It was, however, a very proper experiment to make, though I am afraid, from what I have heard, Mr. Quilter's enterprise has not yielded him any pecuniary profit. Be that as it may, he has won golden opinions as to his pluck, energy, and perseverance, and time will, I trust, show that he has increased the number of his many friends among the leading exhibitors. In his anxiety to make arrangements for the comfort and convenience of horticulturists he somewhat overburdened himself, and undertook rather more than it was possible to perform with a staff rather lacking in organisation. However, of one thing we may be well assured—the lessons then learned will not be forgotten when the next show day comes round; and I feel sanguine that the Lower Grounds Exhibition will eventually be among the best managed anywhere.

One of the chief lessons which I learned at this Exhibition was, that for the successful conduct of an exhibition it is absolutely necessary that there should be a single central authority with power to settle all disputed points, and to do whatever in the exigencies of the moment may be found to be necessary.

Were I asked to settle what the organisation of an extensive horticultural exhibition should be, I should propound some such scheme as this:—

1. A general manager with absolute power.
2. A sufficient number of competent assistants.

The duties of the general manager would be similar to those of a general commanding an army. The duties of the assistants would be to carry out the orders of their chief.

The assistants would be more or less numerous in proportion to the extent and variety of the exhibition. They should consist (1) of an efficient clear-headed secretary, with a staff of well-trained clerks, whose duties on the show day would consist in distributing the show cards to the exhibitors, making out the prize cards, preparing the list of awards, &c. (2.) There should also be as many messengers as there are sets of judges, to wait upon them and carry their awards to the secretary, &c. (3.) A foreman for every tent, who would be captain of the men told-off to do the executive work in that tent. (4.) Men to do the necessary manual labour under the directions of the foreman. Each foreman should have a list of the entries for his tent, and be thoroughly familiar with them; and as the exhibitors come in he should as speedily as possible ascertain from them how far their exhibits will be in accordance with their entries. He should have previously marked-off in a legible manner the spaces assigned to the several exhibitors, so that without delay the exhibits may be placed in the positions reserved for them. Under no circumstances should the foreman leave the tent under his charge until everything is ship-shape. His assistants should be engaged only in such duties as he allots them, and not, as is usual, be sent hither and thither by a dozen masters.

The general manager, with such a staff of subordinates as I have described, limited to a definite work in a certain place, would find his arduous duties made comparatively light. Passing from tent to tent he would ascertain readily the state of affairs, and would perceive at once where supplementary

instructions or variations from his programme were needed. Being freed from executive duties, his mind would be at liberty to deal promptly and coolly with the multitudinous questions constantly arising on such occasions, and so delay, inconvenience, and vexation would be to a very large extent prevented, and hitches rendered almost impossible.

We will suppose the exhibits all staged ready for the judges, and the tents cleared of everyone but the foremen and their assistants. The judges will now enter on the scene of their labours, and the first thing they will do will be to confer with the foreman and ascertain from him what absentees there are, conforming their list of entries to the actual exhibits. Every judge will at once perceive the value of this step. They will then set about their work attended by their messenger, who, as the awards are made, will convey them to the secretary, bringing back to the foreman the prize cards, which he and no one else should affix in their proper places. Meanwhile, however, the foreman will have run his eye over the exhibits, and as there will certainly be plots of unoccupied space, his next work will be to decide how they are to be dealt with, for dealt with they must be before the public are admitted if an effective exhibition is to be produced. A competent man will soon decide what must be done. His attendants will now be busily occupied in carrying out his instructions. If the tent is sparsely occupied their labours will be heavy, for they will have to delude the eyes of the spectators so that they may not be aware of anything wanting. How this may be done will depend on so many circumstances that want of time and space prevents my entering in detail on the subject, but those who have had experience will readily understand all that might be said about it.

The general manager by this time will have gone the round of the tents; he will have detected all the weak places; he will have ascertained what changes in the arrangements must be made to meet the exigencies of the hour; he will have given his foremen their orders, and they with their assistants will rapidly carry them out, so that as the hour for opening arrives the feast will be duly set; everything will be in order; all the machinery by means of which the effect has been produced will be pushed away into the background, and a delighted assemblage of spectators will throng the tents, and warmly express their admiration of everything and everybody.

But it was not quite thus at Aston. There were two if not three managers, all of them competent men, and all sadly overworked in consequence of the absence of proper organisation, and a sufficient staff of assistants rigidly kept to do what might be required of them, and so a good deal of work was done, and had to be undone, and much that might have been done was left untouched. This, however, will not, in all probability, occur again, for Mr. Quilter was painfully aware of the defective arrangements, and will be sure to prevent a repetition. But it is not only at the Aston Show that confusion and overworked managers are to be met with, or I should not have offered the foregoing suggestions. So far as my experience goes they are to be found at most of our shows, and especially at our more extensive ones.

There was one very pleasant feature of the Aston Show which I should like to put prominently before the readers of the Journal, because it seems to me to be a step in the right direction, and one which may be wisely followed elsewhere, and especially at the provincial exhibitions of the Royal Horticultural Society. The judges' luncheon was provided as customary, but on the evening of the first day of the Show there was a dinner at which judges, managers, the press, &c., met together, and which was presided over by Mr. Quilter. The labours of a busy day were ended, the cool of the evening had arrived, it was but meet that after labour should come refreshment; and in a pleasant room some twenty persons, not a few of them leaders in the horticultural world, assembled together to enjoy a bounteous repast and indulge in pleasant talk. I have taken part in many pleasant gatherings, but the evening of July 7, 1874, stands out in my memory as one of the most pleasant of the number. The company was indeed a congenial one; they were everyone backbone horticulturists, professional or amateur. After the usual demonstrations of loyalty and success to the Midland Counties Horticultural Society had been drunk, there came other toasts which afforded apt speakers a rare chance for doing justice to pleasant themes. It is no intention of mine to mention names, but I cannot omit to record what pleasantries were indulged in by him who proposed the horticultural world in the fanciful toast of "Spades, Hoes, and Propagating Houses," nor the earnest and

touching manner in which he who spoke for his brethren responded; the horticultural press, too, was warmly proposed, and representatives of three of the journals spoke from the heart how much they felt the manner in which their labours were appreciated. A very pretty toast was proposed—"Pansies and Daisies," and associated with it was the name of him to whom the world is indebted for that pleasantest of horticultural pursuits, spring gardening. The speaker who proposed this toast told for the edification of the company how spring gardening commenced at Cliveden, and, extensively followed at the Lower Grounds and elsewhere, was influencing the little garden plots at back and front of little cottage homes and artisans' humble dwellings round Birmingham and the surrounding districts; how dreary mangy spots had been made bright and cheery with hardy spring flowers; and how working men were spending their leisure, not in the publichouse but in their tiny gardens. All honour, then, to him who had done so much for his fellows by means of Pansies and Daisies. Surely man was never prouder, or happier, or more overcome than he whom his friends applauded to the very echo. This is but a brief and meagre outline of a most enjoyable evening, the proceedings of which will live long in the memories of those who were fortunate enough to take part in it.

Surely such meetings as these bind man to man. Gardeners, men of literature, nurserymen, amateurs here met on common ground, thoughts and feelings were interchanged, pleasant memories were stored up, renewed strength was imparted to old friendships, new friendships were started into being, and everyone returned to his home all the better for the social intercourse which Mr. Quilter's hospitality had made possible and brought about.—PHILANTHES.

ROSE-GROWING AND ROSE-SHOWING.

I THINK it was a great pity Mr. A. Paul should have written so long a letter, when he might have summed it all up in one sentence—"Don't buy your Roses at Cheshunt, but buy them at our nursery." I have seldom read a more unfair or untrue production: unfair, because it is an attempt to disparage certain growers in the trade because they are exhibitors, and untrue because he ought to know that the Roses which fill the exhibition table are not from those plants which are offered for sale, but from maiden plants, which will not leave the nursery for another year. I have seen both the nurseries, and can tell the Rose-loving public that they are both equally good.

I presume Mr. A. Paul is a young man; if so, he had better tarry awhile ere he put pen to paper again; or, at any rate, strive to have a little more of the commodity commonly known as—JUSTICE.

[This is one of those discussions which are apt to lead to painful personalities, and we must beg that any further communications on the subject may be in our advertising columns.—EDS.]

NOVELTIES IN THE ROYAL GARDENS, KEW.

IN the house No. 1 *Clavija ornata* is in flower. The stem is unbranched, and for 3 feet below the leafy portion (where it is several years old), the racemes of orange-coloured flowers are freely produced. From this peculiar habit it draws attention from the most superficial observer. But for a slightly disagreeable smell the racemes would be valuable for bouquets, from their unique character and beauty. The genus is confined to South America. This species is native of Brazil and Guiana. It is sometimes cultivated in stoves, partly for the sake of its handsome *Theophrasta*-like foliage. It requires the usual stove treatment, and is grown from imported seeds.

In the collection of hardy aquatics, *Nymphaea tuberosa* is a rare Water Lily, with white flowers similar to those of *N. alba*, from which it is, however, distinct. Its chief character rests in the tubers of the rootstock, which are spontaneously detached, and often compound. It is a native of the northern United States, and consequently quite hardy.

Polygonum sachalinense, a comparatively new species, is producing its pale green flowers. It is of ornamental value for the "wild garden" and the backs of herbaceous borders on account of its habit and fine foliage. Native of the island of Sachalin and eastern Amoorland. *Clematis tubulosa*, native of North China, is in flower on the wall. It has bold dark green foliage; the flowers are blue, and so freely produced as to be effective, in form they are tubular, and therefore quite

distinct in appearance from the species usually cultivated. *C. Davidiana*, a new species allied to the above, is also in flower.

Gannera scabra is in fine condition. It has attained a diameter of 13 feet, with a height of 6 feet. The leaves in some cases are 4 feet in breadth, and have petioles of the same length. It has, perhaps, not been tried in this country as an esculent. "It is, however, said to be valuable to the inhabitants of Conception, where it grows luxuriantly. They not only prepare from it a cooling drink, which they consider beneficial in fevers, but the fruit has a certain repute for tanning leather, and the stems are used for tarts, for which purpose they are said to be little inferior to Rhubarb, and, above all, they are eaten raw after dinner with cheese and wine."—(*Gardeners' Chronicle*.) A patch of *Silene Schafta* is extremely pretty. It has a neat but loose habit, grows about 6 inches high, and is covered with rose-coloured flowers. It is a native of the Caucasus, and quite hardy.

Cotyledon spinosa is flowering on the rockwork. It is, perhaps, better known as *Umbilicus spinosus*, and has also been called *Sempervivum cuspidatum*, under which name it is sometimes cultivated. The flowers are pale yellow, produced in a dense erect raceme. Offsets are formed freely, and when very small may be pricked-out in pots or pans. It is very nearly if not quite hardy. Native of Siberia, China, and Japan.

STRAWBERRIES EARLY AND LATE, AND FOR PRESERVING.

Veay many thanks to Messrs. Gloede and Radclyffe, and also to "H.," for so kindly responding to my Strawberry appeal. Certainly I must have a wrong Oscar, as mine is a very late variety. I really wish that one could impose a very heavy fine on nurserymen for sending varieties untrue to name. It is no reparation for the injury done to replace the plants by true ones when told of the mistake, for a year is lost, and often great inconvenience caused. I obtained, two years ago, plants of Elton from an eminent London firm, and it turned out to be another kind—more like Kitley's Goliath, and quite a midseason variety. I hope I shall be more fortunate with Rifleman, recommended by Mr. Gloede, which I have ordered. Would he add to his kindness by informing me what London firm has his Unser Fritz, as I do not see it in any of the lists? I doubt the wisdom of his advice to us to discard Black Prince. I know of no Strawberry which develops so fine a flavour when preserved, though it is quite possible that Roden's Early Prolific, which I have just procured, may beat it as a dessert fruit. I think I have Cockscornb true to name. It is all he describes it to be, except that it does not with me reach an enormous size. It is about the same size as Frogmore Pine; as I said before, not nearly so large as Admiral Dundas, but this only proves that the same Strawberry will alter according to locality. For example, Brown's Wonder, so praised by "H.," is here below contempt. With the highest culture it produced only a few miserable, stunted, wizened, pale, tough berries, and after three seasons' trial was thrown away. Vicomtesse Héricart de Thury planted next to it was superb. Though I did not count them, I am sure there were more than a hundred berries on many of the plants. I know no Strawberry which gives so long-lasting a crop as the Vicomtesse. My plantation of this, facing west, did not come in till I had entirely gathered those in the south border.

Will Mr. Radclyffe kindly tell me what his largest Cockscornb ever weighed? Must not "H." have, like me, a wrongly named Strawberry? He speaks, or rather writes, of gathering his last dish from Prince of Wales, but in Messrs. Carter's list that variety is put down as an early one.

I take this opportunity of asking some light about the most prolific-bearing Strawberry I have. I received it from a neighbour, who has had it these seven or eight years under the name of Lady Carrington. I have looked, last year and this, through many lists, and have never seen that kind mentioned; and what I have is so good that it seems impossible that it should have passed out of the market. I feel inclined to think it is Wond'rin', from what Mr. Radclyffe says of that variety. It is a prodigious bearer, has rather a pine smack, is more acid than British Queen, has an uncoloured tip, is generally wedge-shaped but sometimes conical, and its leaf-stems are hirsute. I should be very glad to know whether it is rightly named Lady Carrington or not.

A great many of my Vicomtesse Héricart de Thury are coming into blossom a second time, not with a bloom here and

there, but with about twenty trusses of blossom to each plant. I intend to leave some on to see the result. I wonder whether, if one were to denude a couple of lines of their blossoms in spring, one would have a chance of a crop from them in September.—D. P. J. K.

I WAS rather taken aback on reading the Rev. W. F. Radclyffe's advice to grow Wonderful for culinary purposes; and as I believe the only way in which Strawberries are so used is by preserving, am I to conclude he means this? If so, I decidedly differ from him. Indeed, I do not know a variety I would not recommend before it. I think it totally unfit for preserving, aye, or to be grown in a garden at all, when we have so many kinds infinitely better in all respects, except, perhaps, as a large cropper; in this quality, too, it is equalled by many varieties which have valuable properties to recommend them. What single point has it to qualify it for a culinary Strawberry? If in any way Mr. Radclyffe's Wonderful has turned out so wonderfully good, I am disposed to think he is the only one who has found it so. I have never met with it good, nor can I grow it to be so. I had it at Maesgwynne in a heavy soil, I have it here in a light sandy one, yet in both situations it has been alike worthless. It is the worst to carry, to stand sun or rain, or to handle. Gather a dish and leave it an hour or two, and see the results. It decays in damp weather more than any other sort I know; it is spoiled in sunny weather sooner than any variety.

Mr. Radclyffe says in conclusion it is of fine pine flavour. Here I ask, What is pine flavour? Am I to take Elton to be the standard of what should be called pine flavour, or British Queen? Not that Wonderful is anything like either; to me it has a flat insipid flavour that is particularly disagreeable. Let me be understood only to give my own experience, as I doubt not Mr. Radclyffe has his?

Mr. F. Gloede's experiences with Nimrod are precisely mine. I well remember my father having it, as he did most other kinds. He proved it to be Myatt's Eleanor. A year or two afterwards I was working in the nursery from which it was sent out. The old man who took charge of the Strawberries assured me the two were not the same, and if his description of Nimrod was as true as that he gave of Eleanor they certainly must be distinct. I have myself met with it of a very different character. We obtained our plants from a London firm. Much talk there has been of what is the latest Strawberry we have. Though it is the earliest, for the last twenty years Black Prince has been also the latest, for I have gathered the fruit under hand-glasses when the glass has been frozen over. I despair of ever finding any later. With a north aspect I think we have Strawberries of good flavour as late as our weather will permit.—JOHN TAYLOR, *Hardwicke Grange*.

POTATOES AT SOUTH KENSINGTON, AND MISTAKES IN JUDGING.

THOSE interested in vegetable culture (and who is not? for even in gardens where flowers and plants are little attended to it is usually necessary to maintain a tolerably good succession of vegetables), Potatoes at least are universally grown, and acknowledged to be the most useful vegetable in existence. There is also an increasing number of amateur cultivators of the Potato who grow from twenty to a hundred and fifty distinct varieties, and they are quite as familiar with the distinctive features of each as the Dahlia or Gladiolus growers are with the foliage and flowers of the objects of their adoration. To the ordinary visitor one yellow Dahlia is exactly like another of the same colour, one red sort is the same as another, but the ardent cultivator who can name the different varieties from the leaves and habit of the plant, without looking at the labels or flowers, is not to be "taken-in and done for." To the amateur cultivator of the Potato the very large collections of handsome tubers exhibited on the 2nd inst. were a treat of no ordinary kind. Even the usual visitors to flower shows showed by the attention which they gave to the different collections that a "Potato tournament" is appreciated by the general public.

There were, as your readers who read last week's report are aware, two series of prizes offered for collections of "twenty dishes, ten round and ten kidney varieties." In the next class the reading of the schedule was, "ten dishes Potatoes five round varieties, five kidney varieties." It was univers-

ally understood that the dishes should be distinct sorts, and very great dissatisfaction was felt at the judging. Now if the schedule says that the dishes should be composed of distinct sorts the judging was wrong, and the exhibitors who received the prizes were not entitled to them in every case. The second prize was awarded to a collection which contained only eighteen distinct varieties. One dish was named Early Goodrich, and another Goodrich Kidney, they were both Early Goodrich; and the two dishes named respectively Cambridge-shire Kidney and Oxfordshire Kidney were the same. Again, the first-prize collection contained only eight distinct varieties in the ten class. Myatt's and Rivers's Ashleaved Kidney were the same, undoubtedly; and the dishes of Red Regent and Early Emperor were both Early Emperor. In the same class the collection to which the third prize was awarded had, apparently, only seven distinct varieties. King's Seedling, Aylesbury Wonder, and Foxe's Seedling were alike. Myatt's Prolific and Rough Kidney could also have been selected from one sort. No doubt there must have been error somewhere. The Judges read the schedule one way, and the exhibitors another. For my part I think the Judges must be right, and that they took it for granted that distinct sorts were not intended. Will you kindly look at the schedule, and say whether it should read, Distinct sorts of round and kidney varieties, or not? Throughout the whole of the collections not one of them contained two dishes under the same name—a plain proof that as far as the exhibitors were concerned they meant that their dishes should be considered distinct.—J. DOUGLAS.

CRYSTAL PALACE AUTUMN SHOW.

This commenced on Tuesday last and will close to-night. At the autumn exhibitions of years ago the whole length of the Palace was filled with flowers, comprising an immense array of Dahlias, Gladioli, Hollyhocks, Asters, &c., and with an equally large display of fruit, in which noble examples of Grapes figured prominently; on this occasion, however, the flowers form but a small proportion of the whole, while the quantity of fruit is not so large as in the past. However, we hail the re-establishment of the autumn Show, and with a revision of the schedule, which might be greatly improved, in the classes for Grapes for instance, we hope it will secure such an amount of support as will render it a permanency.

Collections of fruit come first in the schedule. Here Mr. W. Coleman, gardener to Earl Somers, Eastnor Castle, Ledbury, takes the lead with fine Black Hamburgh and Muscat Grapes, a nice Queen Pine, Victory of Bath Melon, excellent Peaches, Nectarines, and Figs. Mr. Bannerman, gardener to Lord Bagot, Rugeley, is second with a good collection; and Mr. Deuxberry, gardener to Lord Darley, Cobham Hall; Mr. James Neighbour, Bickley Park, Bromley; and Mr. O. Goldsmith, Polesden Lacey, Dorking, also find places in the prize list.

A class for not less than three Pine Apples comes next, and in this Mr. T. Jones, gardener to Her Majesty at Frogmore, takes a decided lead with four magnificent fruit of Smooth-leaved Cayenne. The same kind from Mr. Coulter, gardener to L. J. Baker, Esq., Haydon Hall, Eastcott, and from Mr. R. Plummer, gardener to R. Thornton, Esq., Merton, is second and third. For a single fruit of any variety, Mr. T. W. Bond, gardener to G. A. Smith, Esq., The Beeches, Weybridge, is first with a fine Queen of 6 lbs. 11 ozs., Mr. Jones being second with a handsome Smooth Cayenne. Third is Mr. A. Jamieson, Haigh Hall, Wigan.

The number of bunches of Grapes exhibited is disappointing, but the prizes were insufficient to tempt many exhibitors to expose their fruit during a three-days exhibition. In the Black class Mr. Coleman is first with fine beautifully-ripened bunches of Black Hamburgh; Mr. Potts, gardener to S. Mendel, Esq., Manley Hall, Manchester, being second with splendid bunches of Madresfield Court; and Mr. Bones, gardener to D. McIntosh, Esq., Havering Park, Romford, third with large bunches of Black Hamburgh, but not well coloured. In White Grapes splendid bunches of Muscata from Messrs. Lane of Berkhamstead are first, pressed closely by those from Mr. Coleman, which have the advantage in point of ripeness. Mr. Cole, gardener to J. S. Budgett, Esq., Ealing Park, is third with excellent large-berried bunches. Some good bunches are also shown by Mr. Bannerman and others. Prizes were also offered for the largest bunch of any kind, but the competition is extremely meagre. Mr. Bones is first with Black Hamburgh, weighing 5½ lbs., in reality two bunches from one eye; Mr. Bannerman

second with Gros Guillaume of about the same weight; and Mr. Earp, gardener to J. S. Sellon, Esq., Hume Towers, Bourne-mouth, third with Alicante 3½ lbs.

Peaches and Nectarines are generally small. In the former Mr. Coleman is first with splendid fruit of Barrington; Mr. Bannerman and Mr. Holliday, gardener to J. Norris, Esq., Bletchingley, carrying off the remaining awards with Bellegarde and Wallhurst Admirable. Mr. P. M. Parsons, Melbourne House, Shooter's Hill Road, sends three very large fruit of Lord Palmerston, together with the same number of Princess of Wales, grown in a cool orchard house. Of Nectarines the best are Pit-maston Orange from Mr. O. Goldsmith and Mr. Coleman, and Violette Hative from Mr. W. Gordon, gardener to J. Bonstead, Esq., the last named being second.

Melons are rather numerous, comprising Gilbert's Improved Victory of Bath, Colston Bassett, Golden Drop, and Beechwood in the green-fleshed class. Golden Queen from Mr. C. J. Goldsmith, gardener to H. J. Lambert, Esq., Bletchingley, is first; Victory of Bath from Mr. J. Mayall, gardener to F. Rowland, Esq., Epsom, second; and Incomparable from Mr. Chard, Clarendon Park, Salisbury, third. In Scarlet-fleshed the chief varieties are Gem, Moreton Hall, Read's, Royal Ascot, and Little Heath. The successful competitors are Mr. Pitts, Mr. W. Holder, and Mr. G. Harper.

Of Figs but few are shown. An excellent dish of Brunswick, from Mr. W. Chisholm, gardener to R. C. Taylor, Esq., Broughton Place, Maidstone, is first; White Ischia, from Mr. H. Mandy, Epsom, second; and Brown Turkey, from Mr. Coleman, third.

The best dish of Cherries is what appears to be Florence, shown by Mr. A. Parsons, Danesbury Gardens; fine Morellos from Mr. O. Goldsmith and Mr. J. Holder, Crown Nursery, Reading, coming in second and third.

Of Plums (three dishes) there is a good exhibition, the prizes offered being high. Mr. Coleman again takes the lead with splendid fruit of Washington, Jefferson, and White Magnum Bonum. Mr. Pitts, Riverdale, Dorking, is second, and Mr. Deuxberry third, with Jefferson, Washington, and Kirke's very good. Mr. Sage, Ashridge, is fourth.

The collections of four dishes of Apples are numerous, and though there are many fine specimens, the size on the whole is not so large as in more favourable seasons. For four dessert kinds R. Webb, Esq., Culham House, Reading, takes the first place with Ribston and Cox's Orange Pippin, and Red Astrachan and Devonshire Quarrenden, beautifully coloured, as these and several other varieties shown by him usually are. Mr. Holder, gardener to W. Balston, Esq., Maidstone, comes in second with Margaret, highly coloured, Kerry Pippin, Golden Pippin, and Cox's Orange Pippin, fine. Third comes Mr. A. Longman, gardener to E. D. Lushington, Esq., Maidstone, with King of the Pippins, Cox's Orange Pippin, Devonshire Quarrenden, and Red Astrachan.

For kitchen varieties Mr. J. R. Swinnerton, Swanley, Sutton-on-Hone, takes the highest position with large specimens of Blenheim Pippin, King of Apples, Early Marie, a large yellow Apple, and an unnamed kind. Mr. Chaff, gardener to C. H. Goschen, Esq., Addington, Croydon, is second with very good specimens of Lord Derby, Lord Suffield, and Dumelow's Seedling; Mr. H. Mandy is third.

Pears also are pretty numerous, although we have seen them much finer. Jersey takes the lead for three dishes of dessert kinds, the exhibitor being Mr. C. Tivey, gardener to P. Gosset, Esq., St. Saviour's, who has Louise Bonne, Williams's Bon Chrétien, and De Coq. Mr. W. Strong, gardener to H. Yool, Esq., Weybridge, comes next with fine examples of Louise Bonne and Williams's Bon Chrétien, and these two varieties are also well represented in the third-prize collection from Mr. A. Longman. The heaviest dish is Grosse Calebasse, 9 lbs. 13 ozs., from Mr. W. Jordan; next come Beurri Clairgeau and White Doyenné, respectively from Mr. Stephenson and Mr. Tivey, but the weights are not stated. For flavour the awards went to Louise Bonne from Mr. Strong; Beurri d'Amanslis from Mr. Sage, Ashridge; and Williams's Bon Chrétien from Mr. J. Lane.

Well-fruited Vines in pots are shown by Messrs. Lane, and take a first prize; and Mr. Webb of Reading, has an extra prize for a large collection of Nuts, whilst a first-class certificate was awarded by the Judges to Messrs. Brown, of Stamford, for Peasgood's Nonsuch Apple, of which a figure and description were given in vol. xxiii., page 310.

There are also classes for cottagers, in which there are very good exhibitions of Potatoes, Carrots, Onions, Cabbages, and Cauliflowers.

In the Floral department there is a very good exhibition of Gladioli, although for growers in the south of England it is too late. The only exhibitors in the class for thirty-six are Messrs. Kelway, of Langport, Somerset; and Mr. J. Douglas, gardener to F. Whitbourn, Esq., of Loxford Hall, both showing the largest proportion of seedlings of their own raising, and taking the prizes in the order of their names. In Messrs. Kelway's stand Duchess of Edinburgh, Mr. Wilkinson (first class certificate),

James Kelway, Neogenes, Protheus, Serapis, and Amazon are distinct and very fine in quality. In the second-prize collection Maiden Fair is a distinct and pleasing flower; Honore Vernet, Orphée, Meyerbeer, and the good old sort, Madame Furtado, are conspicuous.

In the open class for twenty-four Messrs. Kelway are again first, and the Rev. H. H. Dombain, Westwell Vicarage, second. In his stand is a magnificent spike of *Le Vésuve*, one of M. Sonchet's, to which a first-class certificate is deservedly awarded. In the amateurs' class for twelve spikes Mr. Douglas, who is the only exhibitor, shows some splendid spikes. Maiden Fair is again to the front. Adolphe Brongniart is also very fine. In the class for six new varieties not in commerce Messrs. Kelway are first. Two of their flowers had first-class certificates awarded to them. Duchess of Edinburgh is probably the largest spike and flower of any yet exhibited; the colour is a very pleasing purplish rose with deep violet throat, the petals lined with white. Mr. Wilson is a finely shaped flower, with a bluish purple ground flaked with crimson. Mr. J. Douglas is second. Two flowers in his stand also obtain first-class certificates. Manfred is a grand flower with a long spike; colour orange-scarlet, with a very deep narrow throat. Warrior is also a very brilliant flower, scarlet and white throat; the petaline segments distinctly lined with white, lip white. Mr. H. Coppin, Rose Nurseries, Shirley, Croydon, is third.

Of Dablias, Show, Fancy, and Pompon, Mr. Turner of Slough sends, not for competition, a fine collection, and takes certificates for Rob Roy, Pollie, and Warrior, as well as an extra prize; and like awards were made to Messrs. Downie & Co. for a charming group of Palms and fine-foliaged plants, the same firm also showing cut Phloxes; and to Mr. Coppin for cut Roses.

There is also a very interesting show of bees, honey, and bee appliances, which we shall report upon next week. A list of the awards will be found in another page.

COPROSMA BAUERIANA VARIEGATA AS A BEDDING PLANT.—I think it is not quite so well known and extensively cultivated as it ought to be; one often sees in many collections a fine plant staged in a greenhouse, and seldom so well grown as to be of any service; but it seems to thrive admirably treated as the generality of bedding plants. I was supplied with two plants from a friend last year, and the thought struck me that, as it seldom did well in a pot, it might do as a bedding plant. I increased my stock to as many as I could, and this year put a few out to form a panel in a short border; the result is that it has grown luxuriantly, and the pretty gold and varnished-like foliage forms a grand contrast amongst other bedding plants. It should be allowed to grow and not be pinched, but requires to be pegged down to keep it in place. It is easily propagated from cuttings of the points of the young shoots with four or five eyes, and put in sand in a brisk bottom heat.—R. GREENFIELD, *The Priory, Warwick*.—(*The Gardener*.)

THE BEAUTIFUL AND USEFUL INSECTS OF OUR GARDENS.—No. 24.

AMONGST some of the orders of insects, we find it to be the case that a good number of the species included therein prey upon other insects nearly related to them. Flies attack and devour flies, and beetles are often the enemies of beetles, and bees "improve the shining hour," not always by gathering honey," but by proceedings which tend to the destruction of relatives belonging to the Hymenopterous order. The Lepidoptera, in comparison to these, are peaceably inclined; yet, though we may regard butterflies and moths generally as a handsome, good-natured, somewhat indolent race, there are exceptions, and in the caterpillar state a few do prey upon their brethren, possibly under circumstances which demand our gratitude. At least this is certainly the fact with the Dunbar (*Cosmia trapezina*), a species, let it be noted, that does not take its name from any connection between it and the place in Scotland immortalised as having been the scene of one of Cromwell's greatest battles, but is so called from a conspicuous mark or band upon the wings. This moth usually appears in July and August, and being rather apt to vary in colour, it is frequently a puzzle to the young insect-hunter, the fore wings being sometimes grey, sometimes rust-colour, and occasionally brown, though we can usually trace out the "dun bar," marked-out by two dark lines crossing the wing, one having a pale inner border, and the other a pale outer border; the "discoidal spots" are enclosed in this bar or band.

The caterpillar of this species is to be taken on Oak, Elm,

and various trees of the wood, the park, or the garden; and though a leaf-feeder at times, by habit it is essentially carnivorous, its particular fancy being the larvae of that pest, the Winter Moth (*Cheimatobia brumata*); still, any other smooth-bodied caterpillar of suitable size is acceptable. So determined is the caterpillar of *C. trapezina* in the pursuit of its prey, that when one is shaken from a tree or bush into the net by a blow of a beating stick, it scarcely takes a moment to recover from the shock, but at once begins to chase after some other caterpillar that has also fallen, and should that have doubled-up in alarm, it has a poor chance of life. On the tree, however, the larvae of *C. brumata* succeed in escaping their enemy at times by rapid crawling, or by suddenly dropping from a silken cord, which baulks the pursuer. As the larva of this moth does not eat its prey "clean up," but mostly contents itself with imbibing some of their juices, one of them can in its life of about two months destroy a good many other larvae. Though there is no doubt that many of the young of *C. trapezina* are killed in April by the cold winds and rains of spring, yet such an average number survive from year to year as to make the moth tolerably common, and it seems to occur throughout the British islands. This caterpillar, which is full-grown in June, has a very smooth, shining head ("with an evil look about it," I have been told; it does not strike me in that way), and a stout body of a green hue, freckled over with numerous black warts, usually arranged in order, eight on each segment. There also five white stripes running from head to tail, these are occasionally tinged with yellow. The under surface of this larva has a transparent appearance. Having descended to the ground, the larva entombs itself there, not going to any depth, but drawing the earth over the slight cocoon of silk which it makes. The chrysalis is brown, and covered with a bloom which resembles that on a ripe Plum. Probably the microscope would resolve this into fine scales.

The rather larger moth designated the Satellite (*Scopelosoma satellitia*), has also strong cannibalistic propensities in its early stage of growth. This is a moth of dingy aspect, with "scalloped" fore wings of reddish brown crossed by dark lines, some of which are indistinct. There is a conspicuous white spot near the centre, sometimes accompanied by two smaller ones, and individuals are now and then taken that have these spots of a bright orange. The perfect insect emerges from the chrysalis in October, and, after being about a short time, hides in some cranny during the winter months, and reappears in March, when the eggs are deposited. The caterpillar has not the placidity of the one just mentioned, but when exposed to view is greatly excited and endeavours by all means to escape observation, wriggling about if handled, and backing-off in alarm if a finger approaches it when it is at rest. This habit is to be accounted for by the fact that the larvae of the Satellite do not live exposed, but form a nest for themselves among the leaves, from which they issue on foraging excursions, mostly at night we may presume. The parent moth deposits its eggs on several species of forest trees, and also on the mixed hedges common in England. Unlike *C. trapezina*, this caterpillar is tolerably slender, of a deep brown colour, with a few scattered white spots, and some faintly-marked lines or stripes along the body, the under surface and legs being decidedly paler than the back and sides. Mr. Newman has found that these creatures will seize and devour their immediate relatives if other fresh food happens to be scarce, and Mr. Buckler has recorded his unhappy experience in rearing a brood of *Tanio-campa Populiti*. He had fifty-seven to start with, and for a time all went on well, they grew and were thriving, until by degrees the number diminished. He could not make it out, and fancied he must have thrown away some with the dead leaves; but as the daily reckoning still became less and less he was puzzled, and ere long it got to be none at all—only a few spots of moisture appeared on the leaves. This led to a regular turn-out of the jar, and lo! at the bottom lay a Satellite larva snugly coiled-up, and happy in the consciousness of having cleared-off the whole fifty-seven of his captives, so that he could feel he was "monarch of all he surveyed." Such a "satellite" it might be worth a gardener's while to encourage, and if it could be induced to breed more numerously about cultivated ground we should be the gainers. According to M. Guerece, on the Continent the larvae of *S. satellitia* feed on low plants towards the end of their life, and, of course, also on the larvae to which these furnish food. They are adult during June with us, and seem tolerably plentiful throughout Britain, though at present found more frequently in open places than in enclosed ground. Still, the species deserves to

be reckoned among those they are friendly to horticulture, as its staple food is other caterpillars.

Two communications have recently been made to the "Entomologist" on the subject of the colonisation of glow-worms, for it has been thought by some persons that, seeing the species is very destructive to snails, it would be a valuable insect in the garden during its stage of growth, and also, when developed into the perfect condition, form an object of interest and amusement on the bank or lawn. This species, properly no worm, but a beetle, and bearing the scientific name of *Lampyrus noctiluca*, the generic appellation from the Greek signifying "shining tail," and the Latin we may freely translate into "night-illuminator," is known in many of our southern counties, yet is rather rare in the north of England I believe. Seen by the hedgesides, and sometimes in wood-openings during the summer months, the glow-worm has often excited the enthusiasm of the stroller in the country, and led him to perpetrate some effusion in prose or verse, with the usual redundancy of adjectives and unmeaning epithets. It has certainly also inspired nobler minds with ideas, such as Cowper, Gilbert White, and Johnson; and though there are occasional instances of luminosity in other species of the beetle tribe, and in centipedes (and the eyes of many moths are lustrous after dusk), the glow-worm is the only British insect that is a light-producer, and reported to be so in all stages of its development. I say reported, because as yet I am hardly prepared to give credence to the assertion that the eggs are luminous, though there cannot be a doubt that the larvæ exhibit, possibly throughout their life, a pale light, which is more like that emitted by the male beetle than the steady brilliant light of the female and wingless insect—steady at all events so long as the insect wills, for it is

able to suppress it at pleasure, much to the astonishment of the rustic lad, who, eager to pick up this "star of earth," seeks in vain for it in the grass after it has withdrawn its light in alarm. And this power is not one of the least remarkable circumstances in glow-worm history.

There has been almost as much discussion as to the nature of the glow-worm's light as about its intent. Philosophers are divided as to whether it is caused by a kind of slow combustion, by phosphorescence, or by some other chemical decomposition which produces light in the same way as does the slow oxidation of phosphorus. Introducing it into oxygen gas, gives increased brilliancy; and Dr. Todd, who went in for several glow-worm experiments in 1824, found that when removed from the insect, the organ continued to shine for awhile, and when the light was apparently quite extinguished, heat, friction, electricity, or the application of either camphor, ammonia, or alcohol, provoked it to show itself again. I think, on consideration, we shall agree that there is force in Mr. Newman's remark when he writes, "The universally received hypothesis that the light of the female glow-worm—like a chignon, a pannier, or a crinoline amongst ourselves—is a lure to attract the male, requires investigation." The luminosity in a degree in the larvæ, pupæ, and males, tells against this notion. Another well-known entomologist, Mr. Wood, expresses the like doubt, and grants that it is unfortunate to have to disturb so poetical a theory. He adds, "I believe that the phosphorescence was given to it for the same

reason that the butterfly's wing glows with many-coloured plumage, and the Rose is dowered with softly-tinted petals and sweet perfume."

Glow-worms are seen during the summer months. A popular belief associates them with the season when the nightingales are in full song. They are not often noticed in August, and quite exceptionally in September. The females (true beetles, though so dissimilar to their partners) are flat soft-bodied creatures, black in colour, and with a few pale spots along the sides of the segments. The legs and antennæ are short; and, taking it altogether, we are not astonished it has been supposed to be a larva or grub. A close investigation proves that the light proceeds from the hinder segments, and observers have variously described it as white or greenish. Those who visit woods at the evening hour report that they have often met with or captured male glow-worms, though they are frequently lacking in collections of our native beetles. Like the females, they are soft-bodied, but have the legs and antennæ more developed, and the usual wings and elytra or wing-cases. The light in these insects is confined to the head, and exists there as two small spots merely, that it has not much brilliancy. One judges from the denial in some quarters that there is any luminosity in the male glow-worms; but the evidence is sufficient to my thinking, though I regret I have not personal acquaintance with the insect. The eggs, according to Mr. Newman's observations, are dropped casually by the beetle, without any regard as to the object on which they may rest, and to which they adhere by a gummy secretion. No sooner do the young larvæ emerge than they begin to eat; their food throughout their existence in that state being the land molluscs, especially of the genus *Zonites*,

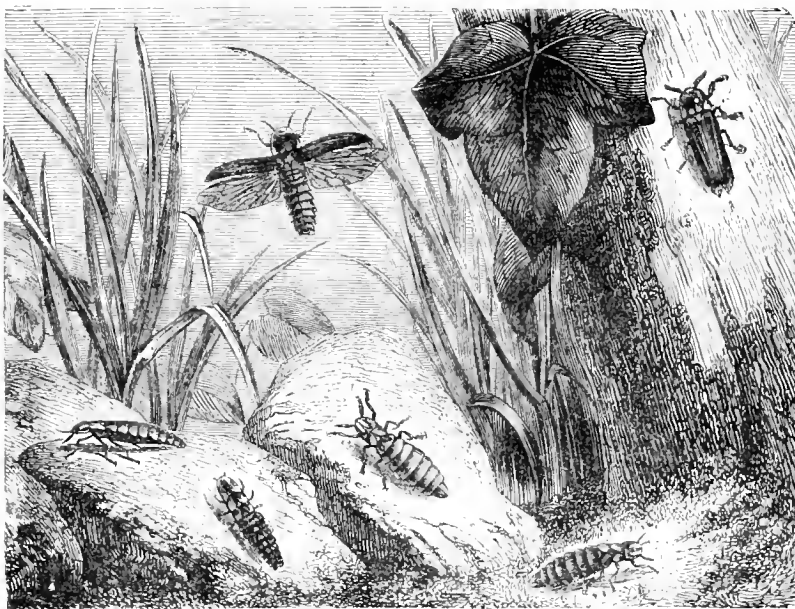


FIG. 71.—METAMORPHOSES OF THE GLOW-WORM.

though both the shelled and shell-less types are attacked, and it is conjectured that when not feeding the larva conceals itself in the shells of snails, which would account for the infrequency of its discovery by naturalists. It also devours the eggs of snails—a valuable piece of service. Several descriptions have been given of a curious telescopic apparatus with which the extremity of the body of the glow-worm larva is provided, and which, when it is pushed out by the larva, expands at the end into a little brush. This is employed as a help in locomotion—a sort of extra leg—and also as a cleaning appliance, to remove deposits of slime and dirt that may have got upon the body, and that cannot be otherwise reached. We do not positively know how long the larval life lasts, but as beetle larvae are generally of slow growth, it is likely these are hatched the year preceding, as they enter the pupal state in April.

At present, then, the glow-worm is only prospectively a garden insect. Could the species be introduced commonly it might claim to be both beautiful and useful; for not only the larvæ, but the females are devourers of molluscs; the males, as is thought, are flower-lovers. All that has been done yet has been the transfer of females from the open ground to the garden lawn, and the light has been seen for a number of nights subsequently, getting paler till it died out; but no larvæ or beetles have followed these in the next season, showing that if eggs were deposited they had failed to continue the race in that spot. The best way would be to get a good number of larvæ, could that be done, or else the eggs, and place these in

a suitable position—not too dry a place would be a desideratum, the insect is partial to moisture. It would be a new feature in a garden fite to have the grounds lit up at dusk with hundreds or thousands of glow-worms.—J. R. S. C.

THE PLANTING OF VASES.

VASES and other sorts of sculpture for the decoration of the pleasure garden about the house or mansion are quite a leading feature in many places. The villa garden in the suburb of some manufacturing town is often particularly rich in them, exhibiting the genius of the brickyard artist in attractive colours, generally shades of red or yellow, and designs rich and original. Vases of good design are highly ornamental when well filled and standing in positions suitable to them—for instance, along a terrace wall, by the side of a flight of steps, or in central positions in an architectural garden. Vases seldom look well crowded too near the mansion; they require space. A garden must be of very considerable extent to admit of the introduction of many vases; a small garden, therefore, can have but very few or none at all; they are often seen sprinkled about small gardens in glaring violation of good taste.

Vases are now made of various materials: the best are made of marble or a good sandstone; next to stone we class cast iron painted. There are also some exceedingly good qualities of terra cotta, which look and stand well, and the designs of some makers are very beautiful, chaste, and in good taste. All cements, terra cottas, and compos are to our mind only varieties of one general form, and that is included in the word plaster; and therefore we are prejudiced against them, though we are quite aware that many fine specimens of art are made in plaster and terra cotta; for the present we object to vases made of any variety of plastic material.

Vases for flowers are made of various shapes; the shape will determine the way in which the vase will be filled. There is the flat shallow vase with wide brim, inviting you to hang a fringe over the edge, and a little garden of plants gently swelling over its surface; then there is the tall deep vase, which a giant might catch in his hand, pedestal and all, and out of it—for giants are not Good Templars—take his morning nip of wine. Such vases should be planted fountain-like, plants tall and spreading. Then there are vases intermediate between a cup and a bottle, tall, with a big belly and contracted neck, with perpendicular-looking handles or ears; these should be planted with something tall in the middle, with dwarf and trailing plants frothing over on the shoulders of the vase. Again, there are vases of all intermediate shapes, some flattish, with swelled bodies and rather contracted necks; some are neither the one thing nor the other, but capacious, with exaggerated freedom of handle; some are Tulips and Water Lilies in design, some ornamented with goats' heads and griffins; some are encircled with the heads of divines and philosophers, with ample flowing beards and eyes of sleepy gravity, expressive of great wisdom, which ultimately get obscured when the tresses of Minnie Warren or the sprays of L'Elégante fall over them.

As a rule, flat vases should be planted with dwarf plants, giving the vase at a distance a flat rounded outline. Tall vases should be planted with tall things in the centre, modifying the manner of planting with the intermediate shapes. A tall, cup-like vase would look poor with a short flat bouquet of flowers growing on the top of it; but with tall fountain-like plants in the middle, with the rim gracefully covered with some trailing plant, it will be a pleasure to look upon. A flat shallow vase planted with tall plants would look even worse, or propped up to a pyramid like the top of a wheat stack.

We have tried various modes of planting vases; we have had immense bouquets of one sort of plant, which were showy enough from a distance, but vulgar; planted in rings of colour ribbon fashion is perhaps worse. In almost every instance, except when the vase is very small, and a single plant sufficient, it is much the best to use a mixture of plants.

We come now to say something about the materials for filling vases. Ours, like the flower-beds, are filled twice a-year, in summer at the bedding-out time with summer-flowering plants, and again in the autumn with hardy plants. The summer lot are all of the same character as the bedding plants, of which Geraniums are the staple for the vases; but we find that as a rule the cuttings of the autumn are not of much use. Large plants in small pots are the best, the top fills out, when for the time the root occupies but a small space. Lifted plants from the beds in the autumn, of whatever sort, can always be put into small pots and kept so throughout the winter; this

applies to *Mesembryanthemums*, Ivy-leaf *Geraniums*, *Abutilons*, *Gazanias*, *Cineraria maritima*, *Centaurea gymnocarpa*, *Tropæolum Minnie Warren*, and others, as well as to the general run of *Geraniums*. A special eye must be had to plants for vases where there are many to fill, else there will be disappointment when the time of filling comes. Much can be got ready in spring and grown into the desired size, such as common *Tropæolums*, *Lobelias*, *Petunias* from seed, *Calceolarias*, *Verbenas*, and cut-back *Fuchsias*; there is quite a wealth of plants suitable for vases when prepared for the purpose. But the chief point is the tasteful planting of the vase; these, like flower-pots, should be provided with a hole in the bottom to take off superfluous water, although it is seldom they get overwatered; a small pot may be put over the hole, mouth downwards, or a few large crocks, just to prevent the hole becoming stopped up. Many crocks are objectionable, except when the vase is very deep and bottle-shaped.

The soil used should be a mixture of fresh fibrous loam and rotten dung, the richest which can be had, the soil to be put into the vase as the work of planting proceeds. It is convenient for the work and for comparison to collect all the moveable vases to one place where the heap of soil is, and the plants at hand for selection as wanted; the work of filling goes on more expeditiously. In planting, begin at the rim with the plants which are to hang over the edge. *Willsii rosea*, Ivy-leaf, L'Elégante, Duke of Edinburgh, Minnie Warren *Tropæolum*, and *Lobelia*, make a fine mixture for a bottom row to hang down; the old pink Ivy-leaf *Geranium*, *Mangles' Variegated Geranium*, long plants of *Gazania* and *Abutilon vexillarium marmoratum*, with *Cineraria maritima* and *Lobelia*, also make rim plants. The next inwards may consist of *Coleus*, *Centaureas*, *Calceolarias*, *Fuchsias*, and various *Geraniums*, choosing the plants as to size until the vase is finished. But we do not care for finishing a vase with one conspicuous staring plant in the centre, as is sometimes done. It is often necessary in planting vases with a bulging shoulder to run two or more thin wires round on which to tie on the hanging plants to prevent them being chafed to pieces by the wind; they also look much better regulated and tied down; some done in that way here are much the most effective, for although tied they still appear to hang. For the centres of tall vases *Acacia lophantha* is very useful with a piece of bare stem, to which can be tied the long sprays of *Abutilon vexillarium marmoratum*. The variegated Japanese Maize also suits well; pyramidal-shaped *Fuchsias*, the narrow-leaved *Dracanas*, *Humea elegans*; also for such vases long plants of the semi-trailing *Geranium Orange Nosegay*, *Centaurea gymnocarpa*, *Salvia patens*, with a few plants of *Petunia* to fill up the bottom and hang gracefully over. Few plants are better adapted for vases than *Petunias*; they flower more profusely when pinched for root room, but water must be supplied liberally; indeed, the question of watering must always be particularly attended to, and with a liberal hand. Sometimes it will be necessary to soak the vases thoroughly twice a-day; if once allowed to get too dry their beauty is marred for the season. After midsummer weak liquid manure should be given every time they are watered; if allowed to get seedy and be starved, instead of an ornament they are a decided eyesore.

Vases for winter can be filled in various ways: first of all, dwarf shrubs can be used entirely; one shapely *Rhododendron* will fill a vase at once, or a mixture of small things may be used. The pretty *Erica herbacea* makes a nice winter edging, and the various *Vincas* and *Ivies* for hanging over; we used *Aucubas* and *Retinosperas* largely last winter. *Retinospora pisifera aurea*, *Euonymus radicans variegatus*, *Erica herbacea*, *Iberis sempervirens*, and *Iberis Tenoreana*, are stocky little plants which work well together in filling vases. *Festuca glauca* in thick tufts also works well with these, but it loses its blue colour in winter. None of these seem to suffer much when the soil is allowed to be dry. They were never watered; and if the soil is raised in the middle and made hard on the surface, much of the rain runs off. The chief feature last winter, however, in the way of vase-filling was in the use of hardy succulents for low flat vases, such as *Sedums glaucum* and *lucidum*, *Sempervivums californicum*, *montanum*, and the common *Houseleek*; *Saxifragas*; also variegated *Thyme*, *Pyrethrum Golden Feather*, &c.

In planting vases at all times we never make any allowance for growth, but plant thickly and make them look full at once; the plants then support each other, they have plenty of room to extend themselves outwards, and the effect improves as they get interlaced. If possible it is always better to group the

vases in some shady sheltered place for a few weeks after filling in summer, before being placed on exposed places on terraces in the blaze of the sun; this is not so necessary in the case of large vases with a large body of soil.—THE SQUIRE'S GARDENER.—(*The Gardener.*)

SAGO.

Sago is nearly pure starch, obtained from various species of Indian Palms. In the Indian Archipelago it is procured from *Sagrus Rumphii*, *Sagrus lavis*, and *Sagrus genuina*; on the Coromandel coast from *Phoenix farinifera*; in Ceylon from *Corypha umbra-culifera*; and in Assam from *Caryota urens*.

These trees are cut down, and from the pith filling their stems the sago is extracted. The pith is thoroughly washed, and from the washing, when allowed to rest, the fecula or starch subsides; this is the sago flour of commerce, of which large quantities are used in the manufacture of calico. When used as food it is granulated, and known as pearl sago. Tapioca is really sago in lumps, and was so called merely because the French, who introduced it from India, named it *Sagou-tapioka*. About eight thousand tons of sago are annually imported.

Sagrus Rumphii (fig. 72), is a small tree, comparatively speaking, not above 30 feet high. It is a native of the Indian Archipelago, particularly of Malacca, Borneo, Sumatra, Celebes, and the Moluccas. Before the tree has arrived at maturity the stem consists of a mere shell, about 2 ins. thick, filled with a great mass of spongy pith, becoming gradually absorbed, and ultimately the stem remains hollow. At the time when the pith is fully developed, and before it has begun to diminish, which is indicated by the superior leaves being covered with a sort of farina or white dust, the tree is felled, and the trunk cut into lengths of 6 or 7 feet long, which are split to admit of the pith being more easily removed. The pith is in the state of a coarse powder, and is mixed with water in a trough having a sieve at one end; the water, loaded with farina, passes through the sieve, and is received in convenient vessels, where it is allowed to stand till the insoluble matter has subsided. The water is then strained off, and the farina which is left may be dried into a kind of meal, or moulded into whatever shape may be desired. Sago, as it comes to this country, is prepared by forming the meal into a paste with water, and

rubbing it into grains; it is produced in the greatest abundance in the Moluccas, but of the finest quality on the eastern coast of Sumatra. The Chinese of Malacca refine it, so as to give it a fine pearly lustre, and large quantities are also prepared at Singapore. It is said that a single tree will yield from 500 to 600 lbs. of sago. Sago forms the principal food of the natives of the Moluccas. A decoction of sago fermented yields alcohol by distillation, and by ascension it forms vinegar. The fruit of this Palm is the size of a hen's egg. The base of the leaf-stalks is covered with long fibrous filaments, that serve to make cordage and sacking.

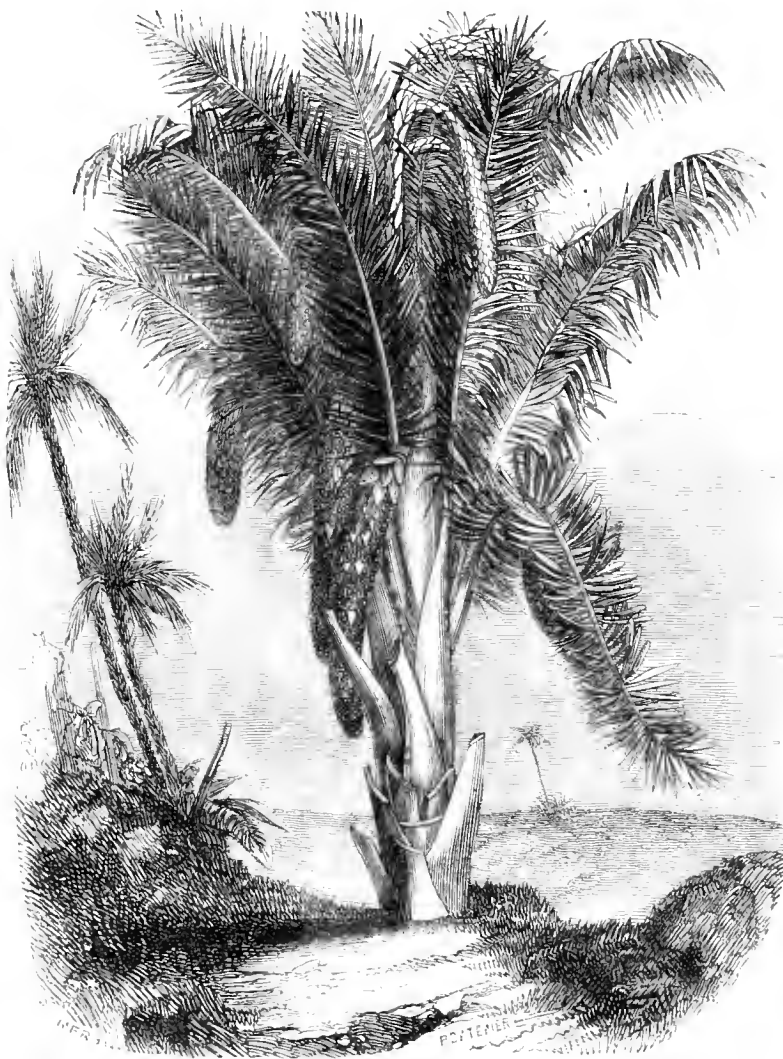


Fig. 72.—SAGO PALM—*SAGRUS RUMPHII*.

NOTES AND GLEANINGS.

THE growth of TEA AND SUGAR IN EUROPEAN soil are perhaps branches of culture which we can scarcely expect to be remunerative in a commercial point of view. Be this as it may, the Sugar-cane is now grown and sugar manufactured to some extent in the neighbourhood of Malaga, Spain. Tea has also been introduced into the southern districts of Sicily; and though the first attempt made last year to raise the plants on a large scale was not successful, owing, it is said, to the injury caused to the plants and seeds by immersion in sea water on their transit from Japan, it is confidently hoped and believed by the promoters that another attempt with healthy seeds and plants will prove quite successful. Meanwhile Tea is being grown at the Cinchona plantations in Jamaica, and a sample has recently been received at the Kew Museum, which was grown and manufactured as above from Assam

Tea plants received through Kew in 1868. So far as the appearance of the sample is concerned, it is roughly manipulated, not being sufficiently twisted or curled, and apparently not sufficiently roasted. Nevertheless, its manufacture is little inferior to that of the earliest samples of Assam Tea that appeared in the English market. Its quality, however, is another thing, for it produces a very watery infusion of a very herby flavour, and devoid of the aroma for which Tea is noted. Care, however, in the cultivation of the plant, as well as in the selection and manipulation of the leaves, may in time produce a more marketable article.—(*Nature.*)

—*Nature* remarks that the *Oenro* (*Abelmoschus esculentus*), a Malvaceous plant, is well known in all tropical countries, being cultivated for the sake of its fruits, which are

gathered in a green state, and either boiled and eaten as a vegetable, pickled in vinegar like capers, or used for thickening soups on account of the mucilage they contain—a common property of the Malvaceæ. In India the seeds are sometimes boiled for making a mucilaginous drink. But we now learn that a fine oil has recently been discovered in them of a quality equal to olive oil, and that it is intended to introduce this oil to commerce. Supposing the oil to be all that is said about it, the question arises as to the supply of seeds. Though the plant is easily cultivated, can it compete with other oleaginous plants?

NOTES ON LIFTING AND ROOT-PRUNING FRUIT TREES.—No. 3.

ALL the stocks employed for dwarfing are of the free-rooting character, and all succeed in catering well for the head. I cannot say that all kinds upon these dwarfing stocks are alike improved in bearing, and at an early age comparatively with those on the free stock. Some varieties of both Apples and Pears are not more productive at an early age than they are on the free stock, exception being made of periodical lifting, which I shall consider presently.

I shall conclude that the dissimilarity in the influence of the dwarf stock, causing some kinds to be productive at an early age, whilst early bearing in others is not promoted, appears to rest solely on the harmony between the growth of the stock and scion being incomplete or the reverse. The dwarf stock with the majority of kinds of Pear, Apple, and Cherry, also the Apricot, Peach, and Nectarine, acts upon them much in the same manner as ringing, but to a less marked extent, and in a more natural way. The roots are plentifully produced, very active during growth; and in the resting period during mild weather more or less fresh ones are originated. Sap is sent up freely to the head; it is patent the descending current is arrested at the junction of the stock and scion, the scion not growing in equal proportion to the stock, for the stem of the latter is considerably less, often not more than half the thickness of that of the scion immediately above the point of union. In no instance have I noticed the stem of the Pear and Apple on the free stock greater in thickness than the stem of the stock; but on the contrary, I have observed the stock stems considerably larger than the scion stems. I have noted the stems of some Cherries to be more swollen than those of the free Cherry stock. Cases of the stock outgrowing the scion are much more general upon the free stock than those of the scion outgrowing the stock. The greater growth of the scion where the trees are on the dwarf stock acts, I think, as before stated, in the same beneficial way on the quantity, size, and quality of the fruit as ringing does; the head receives and appropriates sap to sustain the fruit and foliage, and form the means of production in future years, the stock being deprived of the benefit, if any, and there is some, of the descending current.

I shall not call in question the great benefit to the head arising from the descending sap or current being arrested; but I may say that it is this descending current which gives life to the parts it traverses, and it is not warrantable to suppose that the stem of the stock will be weakened by its obstruction, and ultimately fall into premature decay. I am not able to advance a great deal in proof of this occurring. I know it has been asserted that Pears on the Quince are not noted for longevity, but I have not observed anything more than a few solitary instances, which were certainly cases of the death of the stock from lack of the descending current, the scion taking and appropriating all in foliage and fruit. That the Quince stock is productive of disease, and shortens the age of the subjects upon it, might by a few solitary cases appear established; but then we can find as many showing that the dwarf stock induces health and life, notably in the Ribston Pippin Apple. Rarely on the free stock is the fruit otherwise than large, or the tree free from canker, whilst on the dwarf stock it has not the tendency to canker, the tree having a remarkably healthy appearance, and producing fine well-coloured fruit.

Mr. Knight, I think, attributed the earlier bearing and extra production of finer fruit by the Pear on the Quince stock to the working on a foreign stock, making no allusion to the arrest of the descending current by the stock, which acts like ringing, only in a less degree. Some kinds of Pear will take well on the Hawthorn, but this does not prove the resulting fruitfulness to be otherwise accounted for except by the stoppage of the descending sap, for we may operate with a

scion equal in vigour to the stock with no greater benefit than were it on its own roots. The art of employing the foreign stock, so as to continue the subjects in fruitful vigour and longevity, appears, except in one quarter and by one person, to have received little attention. Mr. Rivers has, it seems to me, alone observed what kinds of Pear do not succeed well on the Quince. Some kinds do not, Mr. Rivers tells us, and after observing the kinds, he first grafts the Quince with a Pear which takes well on it, and then introduces the other variety that does not. As certain Pears do not succeed on the Quince, the union of the growths being so incomplete as to cause early decay, this goes far to show that the descending sap is very greatly arrested, and life almost as soon stayed as in the process of ringing. With the facts before us that some kinds of Pears do not succeed on the Quince stock unless it has been previously worked with a Pear that grows freely on it, it behoves planters to be on the alert, and have varieties on their proper stocks. I do not forget the fact that few propagate their own fruit trees, mostly purchasing them when two, three, or more years old, or in a bearing state, and from a neighbouring nursery: hence the importance of making sure that the trees are on the proper stock; if they are not, what are we to look for but unproductiveness—failure? The proper subjects to select may be known by a perusal of the "Miniature Fruit Garden." But if not troubling the veteran fruit-grower too much, I should be glad if he would give us a list of a dozen kinds of Apples, the same of Pears, Plums, and Cherries, free bearers, large in their respective kinds, combining bulk with quality, hardy dessert, and culinary kinds, not kinds for the few, but for the million, fruit that will alike fill the eye and satisfy the palate. Fancy kinds we have too many of, and know too much respecting their indifferent bearing, small fruit, and unsuitability for many positions in our uncertain climate.

With trees on dwarf stocks and suitable kinds there is no difficulty in getting them to bear from the time when fruit buds are first formed if two things are done—they must not be allowed to overbear themselves either by carrying too heavy crops of fruit or of blossom. Allowing a tree to perfect an immense crop weakens it—makes it aged at a rate no other thing does unless it be ringing, which ends in death shortly after the crop is matured. When a tree produces a vast amount of blossom it is ageing too fast, and should have the flowers thinned, or it may, and for years succeeding, leave off bearing, and become as enfeebled as one overlaid with fruit. Second, the growths must not be allowed to become free, much less strong. The strongest shoots of a bearing tree never should exceed 9 inches in length, and they are sufficiently vigorous if they make from 4 to 6 inches of growth, I mean the young shoots. If the growths do not exceed the latter extent the tree will stand, with a crop of fruit, liberal treatment—namely, frequent top-dressing during the season of rich compost or manure, and free watering in dry weather with water if top-dressed, or with liquid manure if not top-dressed. This feeding is very necessary to the trees, and for two reasons: First, it stimulates the roots, causes them to be produced, induces them to come to the surface for the humus of the top-dressing, and keeps them active, and no check to the growth of the fruit in a dry period is sustained. Should the shoots annually grow more than 9 inches it is evident the roots are extending too far and deep. They require to be brought nearer the surface, and lifting should be resorted to—in fact, I find that lifting is the only cure for unfruitful trees on the dwarf stock. It does not matter if the trees are 9 feet high, and have not been moved for the last seven years, they will move quite safely; but in the following year they will bear but little, if any, fruit, yet the growths will be good—not more than from 3 to 6 inches long in the most vigorous tree, and almost every spur will form itself into a fruit bud, and in the next year a good crop of fruit may be expected, and will be produced if no mishap occur, as frost.

It does not answer to have trees on the dwarf stock and allow them to grow at will. In some soils and situations they fruit freely without recourse being had to lifting, but in the majority of cases they grow too strongly to be free-bearing. Besides, if a tree grows strongly it does not afford correspondingly fine fruit, though the tree needs to be vigorous in order to perfect a full crop of fine fruit. It may be vigorous in having an abundance of large leaves borne on short stiff shoots or spurs, and these are what are wanted, not growth of considerable length, which may have to be shortened two or three times during the summer to keep it within bounds, and allow of a prospect of fruit some time. If this kind of growth be

made, it is of no use whatever trying to obtain fruit by curtailing the head. Cutting the shoots do not fashion the roots, but the roots make the growth of the head what it is. Place them in a soil where they will, by having to find their way through firm rich ground, become much divided; stiff short-jointed growths will be the result, with broad healthy foliage and a preponderance of fruit buds. Have them in a rich open soil, the roots will ramble and the head will be straggling.

Root-pruning with trees on the dwarf stock I do not comprehend, as nothing more than a spade is needed to cut off every root in opening-out the trench to just as far as the majority of the branches extend, any loose soil being removed. The spade may then be driven under the ball at about a foot to 15 inches below the surface roots all round, and with the spades (it may take two for a tree 9 feet high) under one side, lifting the handle upwards, and the head being drawn over at the same time, the tree may be laid on one side quite easily, and with a mass of roots and ball of soil upheaved. We have now to apply the spade, cutting off any roots that may go down, and, throwing in some soil, not rich, tread it or ram it hard. The quantity of soil to put under each tree depends on the depth the trees are in the ground and the surrounding level, but they should have such a quantity as will raise the tree fully 9 inches above the surrounding level for trees 7 feet high, and 1 foot for trees 9 feet in height, calculating the height from 3 inches below the junction of the stock with the scion. The tree is then to be turned the reverse way, lifting with the spades as well as drawing the head, cutting off any roots as on the other side, and adding soil to bring it up to the level of the other side, and the head may then be placed perpendicularly. Soil that is taken out of the trench should be placed so as to form a cone, it being trodden as firmly as possible, barely covering the uppermost roots, and upon it apply a 2-inch thickness of short manure, equally disposed upon the cone, and upon this 3 inches of soil. Tread hard, and we have only to level-up for neatness, the tree appearing on a cone that may have a base of 4 feet and a height in the centre of 9 inches to a foot. It will be necessary to mulch lightly with short littery manure. This keeps out frost, and will be decomposed by spring, or nearly so, and may then be lightly covered with soil for neatness and to prevent its drying. The junction of the stock and scion ought never to be covered with soil or top-dressing. It induces the emission of roots from the scion stem which should not be permitted, but all the available stem of the stock, except the least possible distance necessary for the separation of the scion stem from the soil, should be employed for rooting, and to effect this it should be covered with soil. Of trees lifted in this way not one in all that I have operated on has died; all form at the apex of nearly every spur a plump fruit bud. They will fruit well in the second year after being lifted, and will be good for two or three years or longer, perhaps for life, dependant upon one thing—viz., that they do not make growths of more than 9 inches in length, which may be the results of the trees having the blossom destroyed by frost, for in this case, there being no fruit to take up the sap, it will be expended on new parts; then stopping should be early practised and growth closely restrained. It will be seen by autumn if lifting must be resorted to; if there are fruit buds sufficient for a good crop lifting will not be advisable, for the tree bearing a full crop next year will prevent any continuance of undue vigour. Matters will thereby be righted; but if there are only a few fruit buds or none, lift.

The best time to lift trees is in autumn as soon as the majority of the leaves have fallen, but it may be performed in mild weather up to February. The earlier it is done in autumn after most of the leaves have fallen the better, as the trees have the benefit of roots which are certain to be put forth during the winter. One of the greatest advantages of lifting is the better ripening of the wood which is by it secured; it is a perfect remedy for late and immature growths.

I have one other observation to make with respect to lifting trees that may have been deeply planted. If you happen to have trees of this description to deal with, be cautious in exposing either the stem of the stock or that of the scion—it matters not which; for if you bring the buried stem above the soil it is likely the trees will die, or the branches die back an undesirable distance. Wrap a hayband round such raised stems, and put over it some sacking, so as to protect this part of the stem for a year at least from the influence of the atmosphere, removing the covering by degrees the following autumn.

—G. ABBEY.

LITTLE HEATH MELON.

I, LIKE many others, have grown Little Heath Melon both last year and this, and can speak in its favour. I have an old brick pit with three lights, 4 feet wide and 5 feet long. After being planted with Potatoes, which I lifted the last week of March, I just shook up the bed, which consisted of leaves, and then mixing some short horse dung to start the heat again, I put in a bushel of soil under each light, and no more, consisting of three parts good loam two years old, and one part of cow dung put in a heap two years ago. I then planted the Melons, which were strong, one under each light. The plants were raised from seed sown in a 48-sized pot, and potted singly as soon as the first rough leaf was produced; after planting they grew such healthy dark green foliage, that my gardening friends told me I should have nothing but leaves. Very soon, however, they set plenty of fruit, and fourteen of these in all on the three plants weighed 56 lbs.; my largest was 5½ lbs. weight. They were all cut by the 16th of August, and now I have the pit planted again with May-sown Cauliflower for late autumn use, with the lights off till protection shall be wanted; thus by Christmas the pit will have done good duty, if I have not. My other favourite Melon is Gilbert's Improved Victory of Bath, which I planted in one of Messrs. Boulton's frames, which give me great satisfaction. My employer says we want no other Melon but this, for it is of most delicious flavour, and Little Heath was nearly approaching it, but certainly not equal to it.

As regards affording air to Little Heath Melon, I gave them about the same treatment as the Potatoes, which grew in the pit before them, except that in dull days the lights were pushed off back and front to have a free circulation of air from early in the morning until I shut up, and it always felt to their lot to be last.—C. MEACOCK, *The Gardens, Morville House, Warwick.*

NOTES ON VILLA AND SUBURBAN GARDENING.

As a rule, the ornamental or pleasure portion of the garden of a villa residence receives the greatest share of attention, and the vegetable or fruit garden, though it may be small, is frequently not taken in hand with the same interest and worked with the same animated spirit that somehow seems to grow-up with the former. In my opinion this is not as it should be, for however much pleasure may be derived from the cultivation of flowers, there is such a substantial and profitable return from a well-managed kitchen garden, that the two departments ought to be on a level.

VEGETABLES.—Some, such as the Potato and Onion, will have come to maturity, and should be taken-up and stored away. The former is in most seasons a peculiar crop to deal with; early sorts I presume have been taken up, but the later kinds are beginning to grow, though still unripe, and are likewise affected with the blight, and the question is to know what to do for the best. If the quantity is not large and the tubers are to be used, say this side of Christmas, by all means take them up, but if wanted for use early in spring the tops should be cut off and the tubers left in the ground some time longer. In storing them take care not to lay them thickly in a heap, and let them be put away as dry as possible.

Earth-up such crops as Broccoli and Cabbage, as well as Cauliflowers, and hoe between those just establishing themselves. Some of the late spring sorts may still be planted-out, though to be successful in a high degree they should have been in before. This is the time to plant-out the little Rosette Colewort in quantity; it is one of the best vegetables for winter ever introduced into the garden. It can be planted thickly, say 1 foot each way, and is a very hardy sort, turning-in for use by Christmas and onwards. Clear all ground as crops come off, and dig it up; it may then be planted with different sorts of Kale, such as the tall and dwarf Green Curled, Scotch Cabbaging, and Asparagus Kale. Savoy, too, of the Drumhead kind may still be planted, though I like to plant-out the main crop earlier. Cauliflowers, also, must not be omitted; the most forward for use this autumn should be earthed-up, and those for storing under hand-glasses must be pricked-out in rich soil, while the ground is being prepared for them. It is not well to get them too large towards autumn; therefore, others should be pricked-out from a later sowing. Sow another batch of seed so that a number of the plants may be put-out thickly under walls, and also under glasses, or a frame for the first plantation in spring.

Celery that is to come-in for use next month should be finally earthed-up, but that for winter and spring supply should be allowed to grow freely all this month before much earth is put to it. I find it stands the severe weather much better, owing to the harder state of the outer stalks resulting from these having

a free circulation of air during their growth. All suckers should, however, be pulled off, as well as useless leaves that become broken about; the plants should also be watered freely during this month. Spinach for a winter crop should be sown immediately, and Tomatoes ripening should be encouraged to do so by exposing the fruit to the sun as much as possible, otherwise the process is long, and disease may overtake them.

Another most particular operation now is the planting-out of the different sorts of salading, such as Endive, Lettuces, &c. I presume that of the former there have already been some plantations made for early use, but none of the plants in the seed-bed are strong; they have yet time to grow-out considerably. Good sorts are the Batavian Broad-leaved, Green Curled, Digs-well Prize, and the Moss Curled. The last-named is a more delicate sort, and should therefore be one of the first planted-out. Of Lettuces, sowings should be made frequently, and from each sowing plants should be put-out in every available space of rich ground. There is now no fear of their running to seed, and it is just the time of year to get up a quantity to use in autumn and winter. There is no lack of suitable sorts; there are Hicks' Hardy White Cos, the Black-seeded Bath Cos, &c. The above varieties will do to sow now, and the plants should be put-out thickly under the protection of a wall, or in any sheltered corner to stand the winter. Corn Salad also should be sown. This is a very hardy salad; and Mustard and Cress must not be neglected, as well as Radishes of sorts.

No time must be lost at this season, every preparation being made, and every care taken, to get things well established before winter. Though their appearance will dictate what should be done, the destruction of weeds must be pursued in every quarter, for if any are allowed to shed their seed now the plants will come up in the spring a hundredfold, and prove a source of annoyance and give extra work at a period when other work has to be done.

FRUIT GARDEN.—Among fruit trees there are two things which ought to be well looked after. The first is the ingathering of the fruit as it ripens, and the second the destruction of the insects that eat it. This is the month for them in abundance, and I have already taken means to destroy them by the common methods known to almost everyone; but as to flies and wasps I cannot find anything so suitable for trapping them as the hand-light. For those who may not have tried the plan I will just state what it is. First set a hand-light on a couple of bricks, and place under it a saucer of some sweet enticing liquid, or even a decayed Peach or any other ripe fruit. This hand-light ought to have a small hole in the glass at the top, say $1\frac{1}{2}$ inch square. On the top of this another one is set, but with no hole or outlet of any kind, and the places where they join must be stopped securely up. The wasps enter the bottom light, and after partaking of the liquid fly up and make their way through the hole in the top into the other hand-light, from which they are unable to return. I have caught many hundreds in this way, and saved much fruit which would not otherwise have been preserved. The next thing to look to is to clear the trees of all lateral growth, which at this time of the year is abundant. This admits the sun and light to the buds, and assists in their development for another year. I do not advise the leaves to be picked off the trees, as some would perhaps advocate, for the purpose of ripening the fruit and giving it a colour. I am of opinion that if the wood is properly regulated during the summer, and all superfluous wood not wanted for the formation of the tree kept off, and the rest pinched-back at the proper season, so that it may not once get the upper hand, there is very little, if any, need to interfere further.

All fruit that will hang and is not wanted for present use should be covered with netting. I much prefer the well-known hexagon garden netting to any other; it is very thin, yet strong in texture, and admits all the light; the mesh is so fine that the smallest fly cannot get through. Grape Vines on walls ought also to have their fruit exposed as much as possible to the sun, as it ripens so very slowly in the best of seasons, and the young growth should be stopped-back where it is not wanted.

Strawberry plantations should be made from plants layered this summer, and old beds filled up where vacancies occur. Take care not to plant them deeply. The ground should be well and deeply dug or trenched, and plenty of good manure added. The ground most suitable is that which has previously grown a light crop, as it is not likely to be so much exhausted as if occupied by a deep-rooting vigorous-growing crop, such as Parsnips or a two-season Cabbage bed, which takes too much out of the ground for the Strawberry plant to do well.—THOMAS RECORD.

DOINGS OF THE LAST AND PRESENT WEEKS.

KITCHEN GARDEN.

We have on several occasions alluded to the drought and its effect on the different sorts of vegetables; it is now telling on the *Apple* and *Pear* in a way that we never saw before. On large established trees the leaves are drooping, and in many instances they are falling off with the fruit. In clayey loam

with a deep clay subsoil this would not happen, as the subsoil would retain the moisture. Of course, where the fruit has ripened prematurely it would be folly to allow it to remain on the trees to fall off and be rendered useless. Such fruit will not keep well, and is also deficient in quality. We continue to gather and store Apples and Pears as the fruit becomes ready for gathering. It is also necessary to look over at least twice a-week all fruit that has been gathered, as there are always some specimens showing signs of decay, and which would, if allowed to remain, cause the sound specimens to decay. Looked over wall trees and cut out some superfluous wood, nailing-in shoots where they are required. The slug worm or *slimy grub* has been unusually troublesome this year, especially on Cherry trees, where it seems to be more at home than it is on any other sort of tree. Dusting with dry lime has been recommended to destroy it, but a preferable way is to kill it with the fingers. It is a mere matter of time, and if the grubs are destroyed as soon as observed it will prevent the trees from being disfigured. If this pest is allowed to have its way it will effectually skeletonise the leaves.

Sowed Cauliflower, Lettuce, Early Cabbage, and Onion seeds. We do not find any sorts of Cauliflower succeed better than Early London, Walcheren, and Lenormand's. As soon as the plants have formed the first rough leaf or two they should be pricked-out in an open position and in poor soil. The same treatment is recommended for the Cabbage plants; two good sorts are Early York and Esfield Market. The only variety of Lettuce that has been sown this year is Hicks' Hardy White. It is probably only a good strain of Paris White Cos, but it is as well to know what is really good of the many varieties in cultivation. The only variety of Onion sown is the Deptford.

FRUIT AND FORCING HOUSES.

Pine Apples.—In the fruiting house there are Smooth-leaved Cayenne, Charlotte Rothschild, and Black Jamaica swelling-off. The night temperature is from 65° to 70°; a higher temperature than this, say 5° more, might be maintained if necessary. In our case the fruit is ripening faster than it is required, and in the lower temperature the flavour is quite as good, if not better. Many growers make a practice of watering with manure water. Cow or sheep manure steeped in water and much diluted is the best; but a pinch of guano is less trouble, and is also good. No manure water should be applied after the fruit has grown to three parts the size it is expected to attain. If the plants are kept overwet at the roots, or overdosed with manure water, in all probability some of the best-looking fruit will be black at the core and unrepresentable on the table.

Cucumber House.—Making arrangements for planting out a fresh lot of plants. As we have previously stated, the same plants may be cultivated so as to continue in bearing for at least twelve months; but better crops and superior fruit are produced if the plants are renewed at least every six months. It does not matter much whether the plants are put out in the autumn or spring months. A good time for planting out winter-bearing Cucumber plants is the end of September or early in October; the plants will become established before the dull dark days of Christmas. There is no more useful winter Cucumber than Telegraph, or a good selection of the Sion House type. It is folly to plant very large sorts. Except for exhibition it is not worth while to cultivate them at all; however, there seems to be a growing tendency to revert to such coarse varieties as Marquis of Lorne, and a very similar sort, sent out last year, called Duke of Edinburgh; both of these are large coarse Cucumbers, not even adapted for exhibition, as the fruit does not increase in length without becoming at the same time as thick as a man's arm. A variety named Duke of Edinburgh, and certificated by the Royal Horticultural Society, is quite a different thing, and would be unsurpassed as a winter Cucumber. For summer Cucumbers Tender and True and Blue Gown are models of what an exhibition variety ought to be, but, as with all good Cucumbers, there will be great difficulty in keeping up a true stock.

Melons have not been good this year; but we would like to impress upon all who wish to obtain good Melons that the plants must be kept quite free from red spider, and they must not suffer from the want of water at the roots. Again and again we have met with Melons grown in low lean-to pits with no ventilation in the walls, and almost invariably the plants have been suffering from damp at the collar. The cure for this has been withholding water from the roots, and keeping the surface of the ground quite dry. The check to the plants from damping at the neck, combined with the overdry atmosphere, has rendered them a suitable home for red spider; no after-skill could possibly produce fruit fit to eat from such plants. We have always found Melon plants the least liable to damp-off when trained to a trellis overhead; but in whatever way the plants are trained they ought at no time to suffer from want of water at the roots. A good supply of water about two weeks before the first fruits are likely to ripen, plenty of ventilation, with a night temperature of 65°, and a proportionate rise by day will generally under such circumstances insure good-flavoured fruit. To produce fruit in July, August, and September a span-

roofed house with its end facing south is the best. In the early summer months and late in the year the best form of structure is the half-span. The plants should always be trained to a trellis fixed a foot or 15 inches from the glass roof.

Orchard House.—We are now shaking the Peach and Nectarine trees out of their pots, and repotting all the large trees in the same sized pots in which they had been growing. To do this it is necessary to use an iron prong to disentangle the roots, reducing the ball of roots sufficiently to allow of an inch of the potting material being firmly rammed in down the sides of the pots. Good drainage is also necessary to successful culture. One large piece of potsherd should be placed over the hole in the bottom of the pot, and a few larger pieces round it, finishing off with smaller pieces; over these place some turf with the smaller particles shaken out of it, using only the turfy part. The leaves are sure to flag for a day or two, but dewing with the syringe and keeping the house a little closer than usual will prevent any injury. If the trees have been thoroughly watered a few hours before turning them out of the pots, it is better not to give any water for twenty-four hours after repotting, when a sufficient quantity should be supplied to thoroughly saturate the whole.

Nearly all the Peaches have been gathered; there yet remain Desse Tardive, Exquisite, Lord and Lady Palmerston. The first-named is certainly the very best late Peach we have. It is not quite so good in flavour as Walburton Admirable, but the fruit is larger, it colours better, and it is also a better setter. We have tried several trees of Walburton Admirable in pots, and unless care is taken to impregnate the blossoms the fruit does not set; whereas Desse Tardive never fails to bear a crop, and no artificial impregnation is required. Dymond has disappointed us; the fruit sets very well, but it is only of average flavour, and has not yet grown up to the average size; indeed, it is not so large as Early York. Let us recommend Exquisite as the best of the yellow-fleshed sorts: large, with a fine crimson shade on the sunny side; the flesh is melting and refreshing, and though in flavour it cannot be said to touch Noblesse or Bellegarde, this is as good as some. Lord Palmerston is a good kitchen sort, excellent for cooking purposes, and it makes a delicious pie. It may sometimes be sent in for dessert, but cannot be recommended for that purpose. Lady Palmerston is the last to ripen of the four, and is oftener good than Salway; it ripens ten days or more before that sort. Nectarines are over with Victoria.—J. DOUGLAS.

TRADE CATALOGUES RECEIVED.

Pine Apple Nursery Company, Maidla Vale, Edgware Road, London, W.—*Catalogue of Dutch Bulbs, &c.*

Cranston & Mayo, Hereford.—*Descriptive Catalogue of Dutch, Cape, and other Flowering Bulbs.*

William Barron & Son, 16, Market Street, Nottingham, and Elvaston Nurseries, Borrowash, Derby.—*Select List of Imported Dutch Bulbs, &c.*

Little & Ballantyne, Carlisle, and 36, Mark Lane London, E.C.—*Descriptive Catalogue of Roses, Rhododendrons, &c.—Descriptive and Priced Catalogue of Hyacinths, Tulips, &c.*

Robertson & Galloway, 157, Ingram Street, Glasgow, and The Hermitage, Helensburgh.—*Dutch Root List.*

Barr & Sugden, 12, King Street, Covent Garden, London, W.C.—*Autumnal Descriptive Catalogue of Bulbs and Plants for Winter, Spring, and Summer Flowering.*

George Yates, Underbank, and Royal Oak Mills, Stockport.—*Catalogue of Flower Roots.*

C. Huber & Co., Hyères, France.—*Prix Courant des Graines de Primevères de Chine.—Graines de Boronia megastigma.*

James Dickson & Sons, 108, Eastgate Street, and Newton Nurseries, Chester.—*Select Roses.—Bulbous Flower Roots.—List of Strawberries.—List of Grape Vines.*

T. S. Ware, Hale Farm Nurseries, Tottenham, London.—*A. B. C. Bulb Guide, Collection of Spring Flowers, &c.*

George Poulton, Fountain Nursery, Angel Road, Edmonton.—*Catalogue of Flower Roots.*

TO CORRESPONDENTS.

* It is particularly requested that no communication be addressed privately to either of the Editors of this Journal. All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only.

Books (*A. T. P.*)—"Small Farms," by the Rev. W. Lea, is published at our office, and may be had free by post for 6d. (*J. Vine*).—Mr. Anderson

edited the new edition of McIntosh's "Practical Gardener." Any bookseller can obtain it for you from Messrs. Blackwood, the publishers.

GARDENER'S WORK ON SUNDAYS.—"A Lancashire Gardener" wishes to know whether gardeners ought to be expected to gather Peas, dig Potatoes, &c., on Sundays. The rule is that all such work ought to be done on the previous Saturday; and the cook or housekeeper, knowing what dishes of vegetables will probably be required, should on that day order accordingly. In places where there is a large extent of glass erections there is always plenty of necessary work to be performed by the man in charge. At the same time it is very undesirable for the cook and gardener to come into collision about this or any other matter in which they have a mutual interest. The gardener should let the cook know in a respectful manner that he does not approve of having vegetables of all sorts gathered on Sundays the same as on any other day in the week, and ask that everything that is possible be ordered on the previous day. If respectful language fails, a man who is possessed of a due measure of self-respect will take a firm stand for what he considers right. Vases are sometimes sent out to be filled with flowers on a Sunday, which shows that in those instances employers have not a due respect for the day of rest. Having thus expressed our opinion, we add as decidedly that a man who would refuse to do any sort of work on Sundays to oblige a considerate employer had far better not apply for the office of head gardener in any establishment. What he may justly object to is, either his employer or the cook persistently requiring work to be done on Sunday which might as easily be done on the Saturday.

BANKSIAN ROSE PRUNING (K. W.).—The Banksian Rose requires very little pruning, but you may regulate the shoots, keeping them from becoming very much crowded, cutting them clean out where too thick, and securing them to the wall. In spring the unripe points of the shoots should be removed, or if they are firm even that is not necessary. The old weak branches may be cut clean out, and replaced by young vigorous shoots trained-in at their full length. The aspect being south there should be flowers next season, but the plants take some time to overcome the disposition to growth. The main thing is to secure the thorough ripening of the wood, and to this our climate is not favourable.

STOPPING SEEDLING PELARGONIUMS (J. P. R.).—We would not stop them but keep them near the glass so as to have them dwarf, and after they have flowered you may cut them down to from 4 to 6 inches of the surface, putting in the cuttings, if you think they are of a kind worth continuing. Keep them rather dry until they have made new shoots an inch long, when they may be turned out of the pots, the ball reduced, and repotted in the same size of pot, shifting into larger pots as those they are in fill with roots—say in November or December, and shift into the flowering-pots in February, stopping the shoots when they have made three or four leaves. Tie out the shoots so as to form a good, well-furnished specimen. Stopping may be practised as required up to March.

ALTERNANTHERAS WINTERING (F. J. C.).—The plants will winter safely in a house from which frost is excluded, they being well established in pots before winter, and with no more water than sufficient to keep them fresh. To encourage growth they may be placed in a frame in March. They winter best with us in a temperature of 50°, keeping them moderately moist so as to continue slowly growing during the winter.

CUCUMBERS SHRIVELLING (Tryng).—It is evident from Melons doing remarkably well that the atmosphere is too dry, or not kept regularly moist for the proper swelling of the fruit. Perhaps the syringings are heavy, and the water hangs on the ends of the fruit. See to the bottom heat, having it 75°, and the border in a proper state as to moisture, not making it very wet, and encourage the surface roots with top-dressings of fresh rich compost, removing the surface soil down to the roots with as little injury to them as possible. Be careful to avoid check by air-giving, maintaining a moist atmosphere, and brisk growing heat of 70° to 75° by day without sun, and 85° or more with sun and air. A minimum of 65° to 70° is suitable at night, though in the morning it may be 5° less.

INDICATIONS OF RIPENESS IN MELONS (Beginner).—There are no "maximum or many points" indicating "when any class of Melons are fit to cut." All Melons show their ripeness by changing colour, usually from green to yellow. The change is sufficiently marked in all to show when a Melon is fit to cut, which is when the ripening colour extends over the greater part of the surface of the fruit. The fruit also when ripening emits an aroma, and after this takes place it should be cut within twenty-four hours. Of some Melons when ripening the foot-talk parts from the stem; and when the aroma commences to be given off, and before the stem is so cracked as to part from the fruit, the latter should be cut. It is not difficult to know when a Melon is fit to cut; all that is wanted is a little experience, and its being fit to cut may be known by its exhibiting a mellowness without signs of decay.

CACTI CUTTINGS (Opuntia).—You must obtain them from friends; we know of no florist who sells them, nor of any work devoted to their culture. "Greenhouses for the Many" contains much about them. You can have it free by post if you enclose ten postage stamps with your address.

PEACH HOUSE ARRANGEMENT (H., Monkstown, Co. Dublin).—You will not need a path in front; one where you show the door at the end will answer. The pruning and tying can be done from beneath the trellis, and from the path at back. We presume you have the front wall arched or on pillars, so as to admit of the roots passing from the inside to the outside border; the trees being planted inside, and the shoots trained to the under side of the trellis, but with the form of trellis you show the shoots will have to be trained to the upper side. We should have the trellis curved as you show it, at bottom, and then flat at 16 inches from the glass. By your plan you will gain a little more light for the trees on the back wall, with the disadvantage of having the trees on the upper side of the trellis. The front wall should be on pillars 11 inches by 9 inches, with openings between of 2 feet 6 inches; and with a stone heading of 10 inches by 9 inches, reaching midway between the pillars, you would not need arches, the stone heading being sufficient to carry the woodwork. This we should have preferred, and we would even yet have the front wall disposed in the way named. We should have three trees in front, and three at the back. On the back wall one Early Beatrice, one Early Alfred, and one Royal George Peach. In front one Noblesse, one Grosse Mignonne, and one Bellegarde; or if you wish for a Nectarine in place of the last-named, have Elruge. Stauwick Elruge, forced with us, is a free-setter, and bears very fine fruit. With the present front wall you will only be able to have two trees in front, Noblesse and Grosse Mignonne Peaches.

WINTER-PRUNING PEAR, PLUM, AND APPLE TREES (St. Bridgid).—The trees not having been summer-pruned, should have the shoots cut back to within half an inch of the wood from which they originate. Any shoots required for extension should be trained in their full length, except the central

shoot, which should be cut back to 13 inches to produce the side shoots and a leader. It is fully, however, not to summer-prune, for the long shoots deprive the spurs of the light and air necessary for ripening the fruit buds. The "Modern Peach Pruner" may be had free by post for 3s. 6d. It does not treat of Apple, Pear, and Plum-pruning, which is different.

BLACK HAMBURGH VINE OUT-DOORS MILDEWED (*G. C.*).—The mildew in your case is due to the excessive drought, the roots being in soil little better, probably, than dust-dry. We should give them a thorough watering with guano liquid, 1 oz. guano to a gallon of water; one good watering as the reason is so far advanced will be sufficient. Dust the leaves, shoots, and fruit in every part with flowers of sulphur; a worsted stocking or muslin bag fixed to a pole is a good mode of application, shaking it so as to distribute the sulphur, which is a well-known remedy. The Sweetwater should be treated in the same way.

GRAPES CRACKING (*J. Ball*).—To prevent cracking, the border where the roots are should be moderately dry at the time of ripening; preserve also a dry atmosphere in the house; and as a further precaution cut a notch on the branch to which the bunch is attached, between the bunch and the main stem; this will check the flow of sap to the berries.

GRAPES SHANKED (*Bristol*).—The cracks are not unusual in the stalks severely shanked. They demonstrate that the Vine roots do not supply sufficient sap. Water abundantly with weak tepid liquid manure. Cut out the shanked berries.

VINES FOR EARLY, MUSCAT, AND LATE VINERY (*W. W. W.*).—For the early house you will need six Vines—three Black Hamburgh, one Buckland Sweetwater, one Foster's White Seedling, and one White Frontignan; for the Muscat house three Vines—two Muscat of Alexandria and one Madresfield Court. In the late house you may have eight Vines—two Muscat of Alexandria, one Madresfield Court, which may be cut by Christmas; or if not to be begun on till then, omit them and have two Mrs. Pince, two Lady Downe's, two Alicante, one Gros Guillaume, and one Trebbiano. If you want more white Grapes substitute two White Lady Downe's for one each of Mrs. Pince and Alicante, and if you have the Muscat of Alexandria and Madresfield Court omit one each of Mrs. Pince, Lady Downe's, and Alicante.

MOVING ROSES, CURRANTS, AND RASPBERRIES (*Hortens*).—You can transplant them at Michaelmas.

BEGONIA CULTURE (*W. S.*).—There is no book devoted to so simple a culture. In our No. 595 are all the directions needed.

SCABBED POTATOES (*S. R. J.*).—The origin of the scab in the Potato is undetermined. It is merely an eruption, confined almost entirely to the skin of the tubers, and, probably, is occasioned by some ingredient in the soil which causes decomposition in the tissue of the Potato's skin. Soils manured with coal ashes have been observed particularly liable to cause the scab in the tubers. We shall be obliged by any of our readers sending us the results of their experience relative to this disease. The scab does not attack all varieties though grown in the same soil and cultivated precisely alike. This year on a heavy soil in Sussex, Kentish Ashleaf, Walnut-leaf, and Lapstone were not scabbed; but Giant King and a large handsome white kidney, name unknown, were scabbed.

WEEPING WILLOWS INJURED BY FROST (*J. M.*).—It is evident you have too tender a variety for your situation; the growth being made late and not ripened, hence they are injured by frost, and die back. It is the Babylonian kind—*Salix babylonica*. We have to record similar experience of this species. The Kulmarock, *Salix caprea pendula*, does remarkably well, having long whipcord-like shoots; the American, *Salix americana pendula*, also grows freely, having larger leaves and stronger shoots. Both succeed with us in an exposed position.

DAHLIA (*W. R. W.*).—Your box and the Dahlia it contained were completely flattened by the post-office punches. Possibly it is a seedling, as you conjecture; but we have seen a variety very like it in colour.

MAIZE (*L. J. W.*).—The specimen enclosed is a case of sporting, in which some female blossoms are combined with those of the male.

CLAY-LIKE STRATUM (*R. S. S.*).—You should have stated your locality, for then geology would have told us the constituents of the stratum. It is evidently aluminous, and if reduced to powder and mixed with a light soil would render this more suitable for Roses.

PLUNGING POTS OF BULBS IN COCOA-NUT FIBRE (*Mann*).—There is no fear of the cocoa fibre heating. But why place them in boxes? Could you not stand the pots on the floor of the cellar, plunging them in the fibre, and covering them with it about 2 inches deep? The bulbs should be potted in moist soil, and the pots be set on a deep bottom, so as to keep the soil moist to insure rooting. The bulbs should be removed to light by the time the crown growth has risen an inch. It answers as well, if not better, to plunge the pots in ashes on the floor of a greenhouse, covering them overhead 2 or 3 inches with cocoa-nut refuse, especially for bulbs required for early forcing. Under a stone shelf or other place free of drip answers well. They will be well rooted in about six weeks.

GREENHOUSE HEATING (*M. C.*).—Your greenhouse is too large to be heated by a stove, but it could be heated satisfactorily by a portable boiler which requires no brickwork, and which you will see advertised in our columns weekly. In order to exclude frost, or afford a temperature of 40 to 45° in severe weather, you will need two rows of 3-inch pipes—i. e., a flow and return along the two sides and one end, or you may have all the pipes in front if you find the pipes at the end likely to interfere with doorways. The boiler may be within the house, care being taken to keep down dust by damping the ashes before removal, and having the smoke pipe perfectly smoketight, and communicating with the external atmosphere, being taken clear of woodwork.

CONSTRUCTING GREENHOUSE (*T. P. F.*).—The proportions of your proposed greenhouse are good, but you do not say what your intentions are respecting the interior. We should have the front wall arched, having openings 2 feet 6 inches wide, and the border inside as well as outside, planting the Vines inside at 15 inches from the front wall, and training them to a trellis 16 inches from the glass. For the plants you will need shelves or a stage, so as to have them near the glass and prevent drawing. Three-inch pipes instead of 4-inch will give you all the heat you need to keep out frost in winter, and will effect a saving in first cost, add to the efficiency of the boiler, and require less fuel from having less water to heat.

BUNSEN'S BURNER (*E. J.*).—Any supplier of gas-fittings could obtain one for you. We do not know where they are manufactured.

GAS-HEATED BOILER (*Regular Subscriber*).—We have never tested such boilers, so cannot say which is best. Write to some of the makers who advertise in our columns.

CATERPILLARS DESTROYING PEAS (*P.*).—Those enclosed are the larvæ of the Daddy longlegs (*Tipula*), and eat the stems near the surface of the soil. We know of no means of getting rid of them except stirring the soil about the roots and picking-out the larvæ.

GRUBS ON PEAR LEAVES (*J. Green*).—You will find engravings and a description of this troublesome insect in No. 638, pages 1-4-5. We cannot advise a better remedy than that which you have adopted—namely, dusting with shaked quicklime; repeating the dose will generally be sufficient to destroy them. See what Mr. Douglas says this week in "Loings."

NAME OF FUNGUS (*Barnard Prior*).—*Agaricus procerus*, eatable. **NAMES OF FRUITES** (*L. J. B.*).—1, *Christie's Pippin*; 2, *Summer Whorle*; 3, *Broughton*; 4, *Carle's Seedling*; 5, not known; 6, *Parry's Pearmain*. (*T. C.*) 1, *Adèle de St. Denis*; 2, *Fondante des Bois*; 3, *Beurre d'Herminette*; 4, *Vicar of Winkfield*; 5, *Lelissine d'Illver*.

NAMES OF PLANTS (*R. Jackson*).—The Fern arising from the Surrey peat sent to you is the common Brake, *Pteris aquilina*.

POULTRY, BEE, AND PIGEON CHRONICLE.

BIRKENHEAD POULTRY SHOW.

The Wirral Agricultural Show was held at Birkenhead on the 2nd and 3rd inst. The pens were Turner's, and were well arranged, and the Show exceedingly well conducted, being the best ever held by the Society. There were twenty-one classes for poultry, most of which were very well filled, and the quality was exceedingly good throughout, with the exception that the old birds were generally very shabby in feather.

In *Dorkings* the winners were very good, but the rest poor; Mr. Walker standing well here, as also in adult *Cochins*, with a grand pen of Buffs. In the following class, first came a grand pullet, though the cockerel in the second-prize pen was by far the best. *Brahmas*, both adult and young, were good. Adult *Spanish* were poor, but the winners good in the young class. In *Game* there was nothing of striking merit. In *Bantams* Mr. Entwistle obtained the first prizes both for old and young birds with *Black Reds*, in the former case with the Sheffield cup cock, which, despite the wild assertions of disappointed exhibitors at that Show, is a bird not easily passed over; the second in old were *Blacks*, and in young *Brown Reds*. Strange to say there were but two classes for *Hamburgs*, a point which the breeders duly appreciated by keeping their birds at home. *Ducks* were grand in both classes, those in young being all *Aylesburys*; and the *Geese* a large class, and perhaps one of the best ever seen at a meeting of this kind.

PIGEONS were the great feature of the Show, demonstrating plainly what can be done by one true fancier in a neighbourhood; the classes throughout were well filled with grand birds. Mr. Fulton showing in every class, was severely handled, as compared with what is generally the case. In *Pouter* cocks a *Black* was first and *Blue* second, and in hens the first and second were *Blue*. *Carriers* were very good in both classes, especially Mr. Fulton's *Black* hen. In *Barbs* a *Yellow* was first and a *Black* second. *Dragoons* were divided into two classes, the first for *Blue* and *Silver*, and the second for Any other colour. In the first-named class the Judge was fairly puzzled, and in the end placed equal firsts and seconds upon both *Silvers* and *Blues*. This was truly a grand class. In the next class the first was a *Grizzle*, the second *Yellow*. In *Anteupers* the winners were *Red Chequers*, capital headed birds, but a little heavier in body and longer in feather than would be appreciated for racing, but by far the best in the class. In *Tumblers* the first was a *Kite*, such as will not be easily forgotten, the head, beak, and eye being extremely grand; the second being an *Almond*. The first in *Owls* was a *White African*, and the second a *Silver English*, but we preferred the *White* one shown by Mr. Fulton to either of the above. In the *Variety* class a *Turbiteen* was first and an *Archangel* second, *Trumpeters* also being brought into this class.

DORKINGS.—1, J. Walker, Rochdale. 2, J. Cowburn, Maesgamed, Corwen. *Chickens*.—1, J. Walker. 2, T. Brockebank, jun., Heswall. *he*, E. W. Southwood, Eakenham; T. Brockebank, jun.

COCHINS.—1, J. Walker. 2, T. Asplin, Church, Accrington. *he*, T. Stretch, Ormskirk; W. H. Crabtree, Leyland, Manchester. *Chickens*.—1, T. Stretch. 2, J. Walker. *he*, C. Sidgwick, Kighley. *he*, W. H. Crabtree; T. Asplin.

BRAHMA POOTRA.—1, T. F. Ansell, Cowley Mount, St. Helens. 2, W. H. Crabtree. *he*, J. Watts, King's Heath, Birmingham. *Chickens*.—1, A. Rigg, Gateacre, Wootton. 2, T. F. Ansell. *he*, W. A. Wright, Southport; J. Walker; G. Maples, jun., Wavertree, Liverpool; A. Rigg. *Light*.—*Chickens*.—1, S. W. Hallam, Whitwick, Leicester. 2, E. Peel, Rock Ferry. *he*, E. Peel; T. A. Dean, Marden, Hereford.

SPANISH.—1, J. Leemings, Broughton, Preston. 2, G. K. Chilcott, Fairlawn, Cutham, Bristol. *he*, H. Wilkinson, Earby, Skipton. *Chickens*.—1, H. Wilkinson. 2, J. Leemings.

GAME.—1, G. W. Brierley, Middleton, Manchester. 2, G. C. Barnett, Birkenhead. *Chickens*.—1, T. P. Lyon, Liverpool. 2, G. C. Barnett. *he*, T. P. Lyon; G. C. Barnett.

BANTAMS.—1, W. F. Entwistle, Bradford. 2, R. H. Ashton, Mottram, Manchester. *he*, W. Johnson, Birkenhead. *he*, W. Brick, Newtown. *Chickens*.—1, W. F. Entwistle. 2, G. C. Barnett. *he*, G. C. Barnett; J. Walker; T. H. Stretch.

HAMBURGS.—1, G. & J. Duckworth, Church. *Chickens*.—1, J. Saunders, Edston, Birkenhead. 2, A. C. Leslie.

ANY OTHERS.—1, J. F. Brierley, Loxton, Newton-on-Willows (Silver Pouter). 2, C. Morris, Gt. Park, Chester (Houdans). *he*, Rev. N. J. Eddle, Newbury (La Fleche); J. J. Malden, Bagginslade (Crève-Cœur). *Chickens*.—1, W. Dring, Faversham (Houdans). 2, Rev. A. G. Brooke, Sbrewsbury (Malays). *he*, S. Elliott, Liskeard (Malays); J. Fearnley.

DUCKS.—*Rouen*.—1, J. Walker. 2, W. Evans, Prescott. *hec*, T. Sear, Aylesbury. *hc*, S. H. Stott, Preston (2); J. Bayley, Birkenhead. *Any other Breed*.—1 and 2, J. Walker.

GEES.—1 and 2, J. Walker. *hc*, Thornham Bros, Hemel Hempstead; H. W. Bannor, New Ferry; H. D. Brandreth, Brookhurst, Bromborough; T. Mills, Seacombe; J. White, Wintley, Netherton, Wakefield; Capt. L. Anyon, Chorley. *c*, S. H. Stott.

TURKEYS.—1, J. Walker. 2, J. Frookwell, Wigan. *hc*, J. Cowburn; Rev. N. J. Kidley; J. Dixon, Liverpool. *c*, W. A. Gray, Thurston.

PIGEONS.

POUTERS.—*Cock*.—1, J. Richmond, Oswaldtwistle. 2, J. Baker, London. *hc*, H. Verdon, Wavertree, Liverpool; K. Fulton, London. *Hen*.—1, J. Baker. 2, E. C. Stretch. *hc*, R. Fulton; J. Baker.

CARRIERS.—*Cock*.—1, R. Fulton. 2, P. R. Spencer, Hereford. *hc*, W. Bell, Southport; R. Fulton; J. Baker. *Hen*.—1 and 2, R. Fulton. *hc*, E. C. Stretch.

BARBS.—*Single Bird*.—1, J. Baker. 2, R. Fulton. *hc*, R. Fulton; H. Yardley, Birmingham.

DRAGONS.—*Blue or Silver.*—*Single Bird*.—1, F. Graham, Birkenhead. *Extra* 1, W. Smith, Walton, Liverpool. 2, W. Gamon; H. Yardley. *hc*, F. Graham (2); E. C. Stretch; W. Smith; W. Gamon (2); W. H. Mitchell; J. Holland, Manchester (2). *Any other Colour.*—*Single Bird*.—1 and 2, F. Graham. *hc*, J. G. Dunn, Ryton, Durham; F. Graham; W. Gamon; J. Baker.

ANTWERPS.—*Single Bird*.—1 and 2, W. Gamon.

TEMPLES.—*Single Bird*.—1, J. Baker. 2, H. Verdon. *hc*, H. Verdon; H. Yardley.

FANTAILS.—*Single Bird*.—1 and 2, J. F. Loversidge, Newark, Notts. *hc*, Q. Blum, Higher Brongton, Manchester.

OWLS.—*Single Bird*.—1, P. H. Jones, Fulham. 2, H. Verdon. *hc*, T. Moore; J. Baker (2).

NUSS.—*Single Bird*.—1, J. Richmond. 2, H. Yardley. *hc*, Rev. A. G. Brook.

TRUMPETS.—*Single Bird*.—1, P. H. Jones. 2, J. Baker. *hc*, P. H. Jones; J. Baker.

ANY OTHER VARIETY.—1, R. Fulton (Turbiten). 2, H. W. Webb, Lower Sydenham (Archangel). *hc*, J. Lederer (Trumpeter); A. A. Vander Meerckx (Black and Light Mottled Trumpeters); H. W. Webb (White Pigmy); J. Baker (Red and Yellow Jacobins).

JUDGES.—Mr. Esquilant, Brixton; Mr. Teebay, Preston.

DRIGHLINGTON POULTRY SHOW.

This took place on the 5th inst., but was a very small affair, there being only a hundred entries. Ten or a dozen years ago this Show was considered quite an event, the schedule being good as compared with others of that time; but we are sorry to say that now the Committee does not include a single fancier, and the consequence is that the farmers beat down the poultry prizes, thinking it too much to give 20s. for the best Game cock, when only that amount is given for the best bull, forgetting that a class of Game cocks will pay the whole in entries, while perhaps only one bull is entered. On this occasion, however, there was a fair show as regards quality if the numbers were not good, Mr. Beldon taking most of the prizes with very good birds. There were no entries for Aylesbury Ducks, but the Rouens were fair; and in Game Bantams Mr. Noble showed an exquisite pen of Black Reds.

Of Pigeons Mr. Thresh showed a nice pair of Black Barbs, and the Antwerps were pretty good as a class. In Jacobins, Yellow were first and Reds second. In the Variety class young Blue Dragons were first, Ice Pigeons second, Nuss and Ice being also noticed.

Rabbits were as good as any section of the Show. The winning Lop-ears were really good, both being Fawn-and-white. The first prize in the Variety class went to Himalayan, and the second to Silver-Grey.

SPANISH.—1, H. Beldon, Goitstock, Bingley. 2, J. Thresh, Bradford.

DORRINGS.—1 and 2, H. Beldon.

COCHIN-CHINA.—1 and 2, H. Beldon.

FLAMBA COOTER.—1, H. Beldon. 2, W. Schofield, Birkenshaw.

GAME.—*Black-breasted or other Red*.—1, H. Beldon. 2, J. Hodgson, Bradford. *Duckwinged*.—1, W. H. Mason, Drighlington. 2, A. Fell, Adwalton.

Any other variety.—1, J. J. Mason, Drighlington.

HAMBURGHS.—*Golden-spangled or Golden-pencilled*.—1 and 2, H. Beldon.

Silver-spangled or Silver-pencilled.—1 and 2, H. Beldon. *Black*.—1 and 2, H. Beldon.

ANY OTHER VARIETY.—1 and 2, H. Beldon.

ANY BREED.—*Cock*.—1, J. Hodgson, Foving. 2, H. Beldon.

BANTAMS.—*Game*.—1, G. Noble, Staincliffe, Batley. 2, H. Butler, Bradford.

Any other variety.—1, C. & J. Hingworth, Heights, Hightown. 2, H. Beldon.

DUCKS.—*Rouen*.—1, J. R. Pollard, Wibsey Bank Foot. 2, B. Parkinson, Dewsbury. *Any other variety*.—1, H. Beldon. 2, D. Stead, Adwalton.

PIGEONS.

CARRIERS.—1, H. Beldon.

POUTERS.—1, H. Beldon. 2, J. H. Sykes, Ruddersfield.

TEMPLES.—*Almond*.—1, H. Beldon. *Any other variety*.—1, H. Beldon. 2, T. Scott.

BARBS.—1, J. Thresh, Bradford. 2, J. H. Sykes.

ANTWERPS.—1, H. Beldon. 2, J. H. Sykes.

FANTAILS.—1 and 2, J. H. Sykes.

JACOBINS.—1 and 2, T. Hoff, Bradford.

TRUMPETERS.—1, H. Beldon. 2, J. H. Sykes.

MAGPIE OR SWALLOW.—1 and 2, H. Beldon.

WILD.—1, S. & W. Sheard, Hightown. 2, H. Beldon.

OWLS.—1, J. Thresh, Bradford. 2, W. Harcastle, Bingley. *c*, H. Beldon.

ANY OTHER VARIETY.—1, G. S. Burton, Leeds. 2, H. Beldon.

RABBITS.—*Spanish.*—*Euck or Doe*.—1 and 2, G. S. Burton, Beeston Hill. *Any other variety*.—1 and 2, G. S. Burton. *Common.*—*Euck or Doe*.—1, G. S. Burton, Leeds. *c*, J. Kendall, Adwalton.

The Judge was Mr. J. Dixon, Clayton, Bradford.

BRISTOL POULTRY SHOW.—We are glad to hear that Mr. Cambridge has received sufficient promise of support to enable him to decide upon holding another show, the date of which will be

found in our list of exhibitions. The responsibility, however, being great, subscriptions will be thankfully received by him.

THE POULTRY-KEEPER.—No. 18.

THE BRUGES, OR NORTHERN GAME FOWL.

This includes nearly all the fighting varieties. Its gait and physiognomy are like the English Game fowls. In strength, shape, and weight it resembles the Malay. It is the largest and strongest European variety, and it is ranked amongst the best. The body, very large, is strongly supported by strong and sinewy legs. The plumage, being rather close, deceives as to its size. The head of the cock is strong; the comb small and generally dubbed (because of the special destination of these cocks); it ought to be neither single nor double, falling on one side, and black while young. At adult age the comb becomes red, but it retains many black spots, which are still more noticeable on the cheeks. The wattles and ears are very large. The expression of the cock is fierce. The neck is long, and its hackle rather short and close. The foot and the toes are of a dark grey, and are of remarkable strength and size. The cock weighs generally 8½ lbs., but sometimes 9½, and even 11 lbs.



Fig. 73.—Feather of Cuckoo Bruges Fowl.

Plumage.—The preferable colour, and which amongst amateurs characterises the best variety, is entirely of spangled silver in the cock as well as in the hen, but the cock's tail is dark. The spangled cock without any other colour is very rare. They generally have the hackle more or less golden, upper side of the wings red, and under the breast brown or blackish, and the tail black.

The hen does not differ from the male, and she has the same general characteristics. Her comb is small and granulated. The ear-lobe and cheeks greyish black till she is adult, and her plumage, when spangled, is slightly wavy to the feathers of the tail.

There are cocks and hens of all colours, passing from yellowish white to pure black, &c. The preferable variety is wholly black. Its plumage is of a deep black, and produces a striking effect with the cheeks and ear-lobes black. Moreover, they produce very fine specimens. Another variety of dark brown, almost black, is that which furnishes the largest cocks and hens. There still remains another variety, the plumage of which is entirely cuckoo. The feathers have seven instead of four bars, as in all the other cuckoo varieties (fig. 73).

WHITBY POULTRY SHOW.

The forty-first annual Show was held at Whitby on the 2nd inst. in a large field in an elevated position; and the wind proving very strong, one of the marquees which had been erected for the luncheon was shattered during a storm of thunder and

rain, and the good things provided were scattered in all directions. The poultry and Pigeon section proved much better than we have before seen at Whitby, showing an appreciation of the management of Mr. Stonehouse, the Secretary, who is a true fancier. The pens, which were perfect models for an outdoor show, were of wood except the fronts, and their floors were covered with silver sand, a provision to which we would draw the attention of all committees who hold shows near the beach. The pens were arranged in single tiers on two sides of the field, and the occupants received a great amount of attention from the visitors.

Dorkings came first, adult birds being good, but much out of feather; the young were a good class, the pullets being better than the cockerels. Adult *Spanish* were good. The first-prize cock was the best we have seen this year. Young birds were also pretty good. In *Cochins* adult Whites were first, and Buffs second, a really grand pair of Buffs in the chicken class receiving the first award in the next class; the rest were only moderate. Adult *Brahmas* were fair, and the young very good. The first-prize Dark cock was a nice bird; the second, which was Light, losing only from want of age. Of *Game* we can say little, the quality and condition not coming up to our expectation. Few of the *Hamburgs* were worthy of note, except the winners; but these were good in all respects, the cup for the best pen in the Show being awarded to an almost perfect pair of Silver-spangled chickens.

Game Bantams were tolerably good. The first and second prizes went to chickens of this year, and all were Black Reds, and in the next for the varieties Blacks were first and second, and a very promising pair of pure Silver Sebrights third. For Any other pure breed first came Silver Polands, second Red Malays, and third Gold Polands; and this was a very good class. In the Selling class the first were good Buff Cochins, second Dorkings, and third Gold-pencilled. The whole were sold by auction.

The next class was for birds of the district only, but it was very poor, although a cup was offered. This was won by a pair of Silver-pencilled, the cockerel having some points, but a bad comb, while the pullet was perfect. A pen of Gold-pencils was very highly commended, the cockerel good in most points, but the pullet worthless; while a fair pen of Dark Dorkings was also noticed.

Ducks were all good classes, and some of the pens very cheap, and quickly bought, while the *Geese* and *Goslings* were very large and good in all points, the winners in young being Whites, while in old birds a grand pair of Toulouse was placed first. Adult *Turkeys* were good, but the young only moderate.

PIGEONS were not very numerous, but the winners in most classes were of good quality. In *Pouters* Blacks were first and Blue second, others also good, being highly commended; but we would advise the division of this and the Carrier classes into sexes. *Carriers* and *Fantails* were good, while *Jacobins* were also a nice class. Of *Tumblers* only one pair of any great value was shown—viz., a pair of Agates, with heads that were perfect. In *Trumpeters* Blacks were first and Mottles second, but the eyes of the latter pair did not match. Very good *Dun Barbs* were placed first, and capital young Blacks second in that class; but the Variety class was a puzzle, and every pen was noticed. First came Silver Owls, second Ice Pigeons, third White Owls, and fourth Red Magpies.

A pair of **RABBITS** of the Himalayan variety were shown as extra stock.

DORKINGS.—1, J. White, Wariaby, Northallerton. 2, W. Morfitt, Goole. *he*, R. Smith, jun., Norton, Malton; A. Jackson, Great Broughton; Lady A. B. Peirse, Bedale. *c*, J. Carr, Whitby. *Chickens*.—1, A. Jackson. 2, R. W. Richardson, Beverley. *vhc*, J. White. *hc*, Lady A. B. Peirse. *c*, J. Watts, King's Heath, Birmingham.

SPANISH.—1, H. Beldon, Goitstock, Bingley. 2, J. Thresh, Bradford. *hc*, Pallister & Hawkins, Topcliffe, Thirsk. *c*, R. Smith, jun.; J. Linskill, Sleights Station. *Chickens*.—1, H. Beldon. 2, J. Thresh. *hc*, Pallister & Hawkins; G. Clemmet, Lythe.

COCHINS.—1, H. Beldon. 2, A. Spencer, Driffield. *Chickens*.—1, D. & J. Ibbotson, Whitby. 2, H. Beldon. 3, J. W. Corner, Egton, Yarm.

BRAHMA POUTERS.—1, H. Beldon. 2, P. C. Bedington, Whitby. *hc*, T. Dobson, Kirbymoorside, *c*, Rev. R. L. Story, Lockington Vicarage, Derby. *Chickens*.—1, H. Beldon. 2, J. Watts. *vhc*, W. J. Frank, Eaglescliffe, Yarm. *hc*, T. P. Carver, Langthorpe, Boroughbridge; Capt. Percival, Whitby. *c*, Capt. Percival; J. Clemmet, Stokesley.

GAME.—*Black-breasted or other Reds*.—1, W. Adams, Ipswich. 2, R. Smith, jun. *hc*, H. M. Julian, Beverley. *c*, T. Beldan, Northallerton; W. Maynard, Northallerton. *Any other variety*.—1 and 2, J. A. & H. H. Staveley, Driffield. *hc*, B. Winwood, Worcester. *c*, G. Holmes, Driffield. *Chickens*.—1, W. Adams. 2, F. H. Wright, Halifax. 3, W. F. Pitt, Middlesbrough-on-Tees. *hc*, W. Douthwaite, Darlington. *c*, W. W. Ward, Whitby; J. Robshaw, Whixley.

HAMBURGERS.—*Golden-spangled*.—1, R. Keenleyside, Aycliffe. 2, H. Beldon. *hc*, G. Garbutt, Sinnington, Pickering. *c*, G. Garbutt; H. Beldon. *Silver-spangled*.—1 and *hc*, H. Beldon. 2, J. G. Dent, Seaton Carew. *Gold or Silver-spangled*.—*Chickens*.—*any other variety*.—1, R. Keenleyside. *hc*, J. Robshaw, *c*, R. Newby, Welburn, York.

HAMBURGERS.—*Golden-pencilled*.—1 and 2, H. Beldon. 3, G. Holmes. *hc*, J. Webster, Whitby. *Silver-pencilled*.—1 and 2, H. Beldon. *hc*, G. Holmes; G. Speely, Whitby. *Gold or Silver-pencilled*.—*Chickens*.—1, H. Beldon. 2, D. Waller & Wightson, Stokesley. *hc*, J. Russell, Whitby; T. H. Readman, Whitby. *c*, J. Russell; J. Webster.

BANTAMS.—*Game*.—1, W. Adams. 2, Lady A. B. Peirse. 3 and *hc*, W. C. Dawson, Whitby. *Any other variety*.—1, R. H. Ashton, Mottisam, 2, H. Beldon. 3, T. P. Carver, Langthorpe. *hc*, J. Mayo, Gloucester; T. Dyson, Halifax; W. F. Pett.

ANY OTHER VARIETY.—1 and 3, H. Beldon. 2, Lady D. Yeoman. *hc*, T. P. Carver; J. Patrick. *c*, T. Goodwill, Pickering.

SELLING CLASS.—1, D. & J. Ibbotson. 2, A. Jackson, Great Broughton. 3, J. Webster. *hc*, T. P. Carver; P. C. Bedington; G. Pounder, Kirbymoorside; W. H. Young, Driffield; J. Carr. *c*, I. Hainsshaw, Earsheaton; W. G. Urwin, Whitby; J. W. Corner.

DISTRICT CLASSES.—*Fowls*.—*Chickens*.—Cap, T. H. Readman. *vhc*, J. Carr. *hc*, J. Webster. *Farmer's Cross*.—*Chickens*.—1, Rev. J. Taylor. 2, J. Russell. *Barrow's Cross*.—*Ducks*.—1, Miss Dale, Whitby.

DUCKS.—*Aylesbury*.—1, T. P. Carver. 2, Mrs. Stonehouse, Darnholme. *hc*, T. Dobson, Kirbymoorside; W. Percy, Great Driffield. *Ducklings*.—1, J. Newton. 2, T. P. Carver. *c*, T. Dobson.

DUCKS.—*Rouen*.—1, J. Newton. 2 and *hc*, G. Garbutt. *hc*, P. C. Bedington; G. Pounder. *c*, Mrs. C. Tarbotton, Cawton, Gilling, York. *Ducklings*.—1, J. Newton. 2, T. P. Carver. *hc*, G. Garbutt. *c*, Miss Jordan, Driffield.

DUCKS.—*Any other variety*.—1, T. P. Carver. 2, W. Binns, Pudsey. *hc*, T. P. Carver; O. A. Young, Driffield.

GESE.—1, Mrs. J. Mitchell, Pickering. 2, J. Story, Yarm. 3, T. M. Derry, Gedy. *hc*, P. C. Bedington, Whitby; O. A. Young, Driffield; G. Pounder, Kirbymoorside, York. *Goslings*.—1, J. Story. 2, O. A. Young. *hc*, T. M. Derry; Mrs. C. Tarbotton, Cawton, Gilling, York. *c*, Mrs. J. Mitchell.

TURKEYS.—1, T. P. Carver, Langthorpe. 2, J. Story. *hc*, G. Pounder; Mrs. J. Mitchell. *Poulties*.—1, J. Story. 2 and *hc*, Mrs. W. Ward, Eskdalegate.

PIGEONS.

POUTERS.—1 and 2, J. E. Crofts, Blyth, Worksop. *hc*, J. P. Fawcett, Whitby; A. Spencer, Driffield.

TUMBLERS.—1, W. Adams, Ipswich. 2, J. E. Crofts. 3, J. Horsley.

CARRIERS.—1, J. E. Crofts. 2, J. Aconley, Pickering. **FANTAILS**.—1, J. P. Fawcett. 2, J. F. Lowersidge, Newark, Notts. *hc*, T. S. Stephenson, Newbegin, Beverley. *c*, J. Welford.

JACOBS.—1, J. E. Crofts. 2, J. Aconley. *c*, S. Denham, Pickering; W. Horsley, Welham, Malton.

TRUMPETERS.—1, R. J. Smith, Yarm. 2, J. E. Crofts. *hc*, J. H. Watkins, Hereford.

BARBS.—1, J. E. Crofts. 2, J. Thresh, Bradford. *vhc*, J. H. Watkins. *c*, J. Aconley.

ANY OTHER VARIETY.—1, W. Binns, Pudsey. 2, J. Thresh. 3, J. G. Dent, Seaton. 4 and 5, J. E. Crofts. *vhc*, S. Denham. *hc*, J. Aconley (2); J. E. Watkins. *c*, J. G. Dent; N. Russell, jun., Northallerton (silver Owls); J. W. Hyde.

EXTRA STOCK.—J. W. Watson, Sleights (Rabbits).

JUDGE.—Mr. E. Hutton, Pudsey.

BATH POULTRY SHOW.

SEPTEMBER 2ND AND 3RD.

(From a Correspondent.)

ONLY one or two slight alterations in the schedule of this Show will be necessary to make it for the future one of the great chicken exhibitions of the year. Adult classes would be better omitted, as, owing to the moulting season, it is impossible to get together classes of old birds at all worthy of such a show. The first prizes and cups were liberal, but a second prize of 10s. is hardly sufficient. Again, why should old birds be charged 5s. entry fee and chickens 4s.? A uniform rate for all the classes would be very much better. The Committee in their programme state the Judges will be gentlemen of acknowledged experience, now we hardly think Mr. Croote comes within this category, as we do not remember that his name has been much before the poultry public either as a judge or successful exhibitor of any variety. We do not wish to be hard on this gentleman, but we cannot help saying that his awards in the Game, Hamburgs, and Silkie were received with very general disfavour. Mr. Hodson judged the large breeds, French, Polish, and Variety Bantams well.

The first-prize pen of adult *Dorkings* contained a very large hen, but too light in colour. The second-prize cock was best, but the hen not nearly his equal. The cup cockerel was Dark, large in frame, and with very good feet and legs: the rest of the class far behind. Taking the whole class, the pullets were certainly the best, the first-prize a very even pair of Dark birds. The third-prize birds had beautiful combs. Mr. Beachey's was a good pen, but very sooty in foot. In Variety *Dorkings* Mr. Cresswell showed two fine young cockerels, but hardly so light in colour as Silver-Greys should be. The finest Silver-Grey pullet was in the second-prize pen, but she was not well matched. Fair white pullets were third. In *Cochins* Buffs were first, the cock with mealy flights but well ahead. Partridge were first and third in cockerels, and a very good Buff second. Pen No. 45 had been grossly trimmed in the locks, and was justly thrown out by the Judge. We were sorry to see this happen to so old an exhibitor as Mr. Tomlinson. The Cochins cup was awarded to a splendid pair of Buff pullets which had previously taken the cup at Sandy. Mr. Crabtree's was also a very good pen. Mr. Woodgate won easily in Whites. Black *Cochins* were decidedly poor. *Brahmas* were marvellous classes both as regards numbers and quality. Mr. Lingwood's Dark cockerel was the admiration of all beholders; he is immense in size, broad, deep, very good in colour and comb, and altogether a model specimen. We think we are justified in saying that no bird hitherto seen has combined such perfection in points with great size; he justly took the champion cup. The second-prize cockerel, though a good deal younger, will make a very fine bird. He is most beautifully and evenly ticked on the breast, a feature we do not at all dislike. Dark pullets were also good. We think the third prize must have been meant for the next pen. In Light *Brahmas* Mrs. Williamson won with a very fine pen; "Young Hero" was second and out of condition. The first-prize cockerel was good but very yellow. Light *Brahma* pullets were thirty-nine pens, almost one of the largest musters ever seen. Among so many good pens it must have been no easy task to pick out

PARGOTS (Grey).—1, Mrs. J. T. Holmes. 2, Mrs. L. Allen, London Road, S.E.
PARROT or PARROQUET.—1, W. Walter. 2, G. Whiting, Bath. *hc*, Mrs. E. G. Hayward, Stonehouse.
FOREIGN BIRDS—*Pair*.—1, Miss E. Matcham, Bath. 2, Mrs. E. Drummond.
JUDGES.—*Poultry* : Rev. G. F. Hodgson and Mr. J. Croote.
Pigeons : Capt. Norman Hill and Mr. Frederick Gresham.
Cage Birds : Mr. W. A. Blakston.

VALE OF TODMORDEN POULTRY SHOW.

This year the entries at the Show held on the 5th inst. were in all sections much larger than at any previous one at the same place, although little alteration had been made in the schedule; but the management is very good, the Secretary and Committee most obliging and attentive, the pens on Turner's principle and well arranged, and the time of exhibition short.

There were six classes for *Game* and one silver cup, which was awarded to a grand Pile chicken, which, however, had some tail feathers broken, but otherwise was one of the best moulded birds seen this year. Black Reds in both classes were only moderately good, but there were some nice Brown Red pullets. Next to the above-named Pile were two Duckwing pullets, which are about the best we have seen for a long time, though a little shy in the show-pen. Dark *Brahmas* were very good, as also the Light birds. Mr. Watts's highly commended pen contained a grand pullet but a very veedly cockerel. *Dorkings* were not so large as some seen of late, but more correct in limb and colour. *Spanish* were very good; three of the pens had a very close run. In Pencilled *Hamburgs* Messrs. Duckworth showed a grand pair, the pencilling of the pullet very perfect. Mr. Beldon won with a capital pair of Silver-pencilled; but the cup for *Hamburgs* was given to a most excellent pair of Silver-spangled, the only fault being that the cockerel's thighs were a little darker than desirable. The Gold-spangled as regards the two winning pens were very good, especially the first-prize pullet. Black *Hamburgs* were really good, and all fine in face, the first-prize pair very neat and *Hamburg*-like. *Cochins* were good, the first-prize Partridge almost equally developed with old birds, and most perfect in shape and colour.

Game Bantams had but two classes, and the entries were very large, single birds being shown. In cockerels Mr. Entwistle won with a perfect Duckwing; the second, a good Pile, was a little low in condition. Perhaps it will not be saying too much if we assert that the first-prize Pile pullet was about the best ever seen in both style and colour; the second, a Brown Red, was also good; and an extra third prize went to a good Pile. In the next class, Black Rose-combed were first, and Silver-laced second.

French fowls were but poor, while in the Variety class the first were Malays, and second Gold Polands, the latter a little pale in colour.

The first-prize *Aylesbury Ducks* were quickly claimed, the quality being such as has never been surpassed, while the *Ronens* were a grand class. *Chilian Pintails* were first in the Variety class, and *Brazilian* second.

In the district competition there were some good pens, while the majority were only of moderate quality; the most noteworthy being the winning *Brahmas*, the *Game* chickens, and the *Ducks*.

PIGEONS.—In *Pouters* Mr. Harvey won with two exquisite pens of Blues. The style and carriage of these birds is really grand, and with such severe work it is a wonder they keep in such form. *Carriers* were, first Black, and second Duns, the latter heavier but not so stylish as the former, but this award did not please the second-prize winner. *Almond Tumblers* were first, a well-broken pair, but second not so well matched. *Tumblers*, any other variety, were, first capital *Kites*, and second *Yellow Mottles*. *Dragoons* were a large good class, all the prizes going to Blackburn, first to a pair of Blues, second to Yellows, and third to Blues. *Turbits* were, first Reds, and second Silvers, but many pens were in deep moult. The *Fantails* were very good, but the wind was so strong that it was with great difficulty the awards were made, as also in *Jacobins*, where the winners were closely contesting Reds. In *Barbs* the first were Duns, the second Blacks. In *Antwerps*, which is a mixed class, the first were very good medium-faced Silver Duns, the second going to Red Chequers, although this prize was placed in the first instance on a pair of Duns of doubtful sex, but a knot of exhibitors, after sitting in committee upon them, decided upon their being two cocks, and these were disqualified, as also another pen shown by the same exhibitor. In *English Owls* many were a little thin and snouty, and some of the best not fit for the show pen through deep moult. The first were good Blues and quickly claimed. In *Nuns* good Blacks were first, and Yellow second. In the Variety class the first were Ice Pigeons, second Black Fairies, and third Blondinette.

RABBITS.—There were seventy-two entries in six classes, and the competition keen in most of these, and several extras were awarded. In *Lop-ears* Mr. Boyle's grand young doe was again to the front, and second was Mr. Irving's good *Tortoiseshell*. The first was 22½ by 4½ inches, and second 21½ by 4½ inches,

losing also in style and texture of ears; the third a Sooty Fawn Buck 20½ by 4½ inches. *Angoras* were very good, and the *Rabbits* well shown. *Himalayans* were a very large class, Mr. Hallas winning first with a young Rabbit of very grand points; the second also young, very good, and several noticed *Rabbits* of rare quality. *Silver-Greys* were capital, first Mr. Ball's grand doe; second a buck rather too light but very even; and third an even Rabbit, good in shape but not up in condition as compared with the others. In the Variety class the first was a Blue Dutch, and second a good *Hare Rabbit*; and in the Selling class the first was Silver Grey, and the second *Angora*.

GAME.—*Black Red.*—*Cockerel*.—1, W. Spencer, Haworth. 2, E. Aykroyd, Feelschill. *hc*, Capt. Mitchell, Stackssteads; W. Ormerod, Todmorden; R. Walker, Gomersal. *Pullet*.—1, R. Walker. 2, J. Fletcher, Stoneclough. *c*, W. Ormerod.

GAME.—*Brown Red.*—*Cockerel*.—1, J. F. Walton, Horncliffe, Rawtenstall. 2, J. Fortune, Keighley. *Pullet*.—1, H. Butler, Bradford. 2, J. Cock, Worcester. *hc* J. F. Walton.

GAME.—*Any other variety.*—*Cockerel*.—Capt. J. F. Walton. 2, J. Fletcher. 3, G. Ambler, Dewsbury. *hc*, J. Greenhough, Harrogate, Acetington; W. Ormerod; E. Aykroyd; W. Clough, Earby, Skipton. *Pullet*.—1 and 2, E. Aykroyd. *hc*, J. F. Walton; F. Winwood, Worcester.

BRAHMAS.—*Dark.*—*Chickens*.—1, J. H. Fields, Birkdale, Southport. 2, J. Watts, King's Heath, Birmingham. *hc*, R. P. Percival, Northenden; J. Cryer, Littleborough. *Light.*—*Chickens*.—1, Mrs. H. P. Foulkes, Montgomery. 2, J. Long, Bromley Common. *hc*, J. Watts.

COCHIN-CHINAS.—*Chickens*.—1 and *hc*, C. Sidgwick, Keighley. 2 and *hc*, W. H. Crabtree.

DORKINGS.—*Chickens*.—1, T. Eiden, Conoulev. 2, J. Walker, Rochdale. *hc*, J. Stott, Healey, Rochdale; S. Brierley, Bading, Rochdale (2).

SPANISH.—*Chickens*.—1, H. Beldon, Goltstock. 2, E. Winwood. *hc* and *c*, H. Wilkinson, Earby.

HAMBURGERS.—*Gold-pencilled.*—*Chickens*.—1, G. & J. Duckworth, Church. 2, H. Beldon. *hc*, J. Long. *Gold-spangled.*—*Chickens*.—1, G. & J. Duckworth. 2, H. Beldon. *hc*, T. May, Wolverhampton. *Silver-pencilled.*—*Chickens*.—1, H. Beldon. 2, J. Long. *Silver-spangled.*—*Chickens*.—Capt. H. Beldon. 2, J. Fielding, Newchurch. *hc*, J. Long. *Black.*—*Chickens*.—1, C. Sidgwick. 2, J. Long. *hc*, J. Patrick, Hackssteads.

BANTAMS.—*Game.*—*Cockerel*.—1 and *hc*, W. F. Entwistle, Westfield, Bradford. 2, E. Walton, Horncliffe, Rawtenstall. *hc*, R. P. Percival, Cockshaw, Hexham; A. Smith, Northwram, Halifax. *c*, G. Evans, Worcester; J. Nelson. *Pullet*.—1, E. Walton. 2, W. F. Entwistle. 3, J. Nelson. *hc*, W. F. Entwistle; G. Evans; F. Matland, Worcester.

BANTAMS.—*Any other variety.*—*Chickens*.—1, H. Beldon. 2, J. Walker. *hc*, R. H. Ashton, Mottram; T. Cropper, Bacup.

FRENCH.—*Chickens*.—1, H. Wilkinson. 2, G. W. Hibbert, Godley, Hyde.

ANY OTHER VARIETY.—*Chickens*.—1, J. F. Walton (Malay). 2, T. Dean, Keighley (Golden Polands).

SELLING CLASS.—1, R. Hutchinson, Littleborough. 2, G. Higgin, Hebden Bridge. *hc*, T. Wakefield, Goltstock; J. Patrick; C. Holt, Rochdale; W. Ormerod; T. Cropper; *c*, W. Ormerod.

DUCKINGS.—*Aylesbury.*—1, R. Hutkinson. 2, C. Holt. *hc*, J. Walker (2). *Rouen.*—1, T. Wakefield. 2, J. Walker. *hc*, T. Wakefield; C. Holt. *Any other variety.*—1, J. Walker. 2, H. B. Smith, Broughton. *hc*, J. Walker; S. Greenwood, Todmorden; H. B. Smith (2).

GEES.—1, J. Walker.

TURKEYS.—1, J. Walker. 2, R. T. Lord.

DISTRICT COMPETITION ONLY.

COCHIN-CHINA.—*Chickens*.—1, J. Dearden, Shawbottom, Hebden Bridge. 2, J. Sutcliffe, Temple, Todmorden. *hc*, T. Lord, Priestwell, Todmorden; W. Mallinson, Hebden Bridge.

BRAHMAS.—*Chickens*.—1, C. Holt. 2, J. Mitchell, Todmorden. 3, W. Hargreaves, Bacup. *hc*, J. Hollivell, Hebden Bridge; J. Sutcliffe; W. Nuttall, Hebden Bridge; J. Mitchell. *c*, J. Crabtree, Eastwood.

BANTAMS.—*Black.*—*Chickens*.—1, W. Dawson, Todmorden. 2, T. Cropper. *hc*, W. Hey, Rochdale. *Any other variety.*—*Chickens*.—1 and 2, B. Cockerill, Hebden Bridge. *hc*, S. Pickles, Mytholmroyd; H. Crabtree, Todmorden; T. Cropper.

HAMBURGERS.—*Chickens*.—1, J. Patrick. 2, H. Stanworth, Worsthorpe. *hc*, J. Chadwick, Littleborough; T. Williams, Hebden Bridge; R. Anthony, Eastwood.

GAME.—*Chickens*.—1 and 2, W. Ormerod. *hc*, W. Dawson; J. Crabtree, Ewood, Mytholmroyd.

DUCKINGS.—1, W. Hey. 2, W. H. Rothwell, Milnorow. 3, J. Trickett, Waterfoot. *hc*, J. Dearden; S. Whitham, Todmorden.

ANY OTHER VARIETY.—*Chickens*.—1, J. Chadwick. 2, J. Jackson, Todmorden. *hc*, R. Whitehead, Worsthorpe.

PIGEONS.

POUTERS.—1 and 2, W. Harvey, Sheffield. *hc*, W. J. Warburst, Staleybridge; J. Richmond, Oswaldtwistle; E. Horner, Harewood.

CARRIERS.—1, W. Sefton, Blackburn. 2, E. Horner. *hc*, W. Sefton; E. Horner.

TUMBLERS.—*Almond.*—1, W. Harvey, Sheffield. 2, E. Horner. *hc*, H. Yardley, Birmingham. *c*, J. Lawton, Staleybridge. *Any other variety.*—1 and *c*, T. & W. Odde, Brierfield. 2, E. Horner. *hc*, W. Lumb, Rochdale. *hc*, J. Lawton; W. Harvey; H. Yardley.

DRAGONS.—1 and 2, W. Sefton. 3, J. Stanley, Blackburn. *hc*, J. Stansfield, Cornholme; W. Sefton. *hc*, B. Cockerill; W. Harvey.

FANTAILS.—1, E. Horner. 2, J. F. Loversidge, Newark. *hc*, W. Lumb. *hc*, J. F. Loversidge; R. White, Manchester; J. Richmond; W. Sefton.

BARBS.—1, W. Harvey. 2, E. Horner. *c*, H. Yardley.

JACOBINS.—1, E. Horner. 2, W. Harvey. *hc*, J. Richmond; H. Yardley. *c* J. Stanley; W. Lumb.

ANTWERPS.—1, C. Sutcliffe. 2, J. Parker, Burnley. 3, C. Hopwood, Rochdale. *hc*, C. Sutcliffe; P. Greenwood. *c*, R. White; P. Horner.

TURBITS.—1, E. Horner. 2, W. & A. Stott, Healey. *hc*, W. Harvey; S. Lawson, Preston (3); H. Yardley.

TRUMPETERS.—1, G. de Lisle, Loughborough. 2, E. Horner.

OWLS.—*English.*—1, C. Sutcliffe. 2, J. Richmond. *hc*, A. Warburton, Haslingden; W. Holt, Cheadle, Todmorden; S. Lawson. *c*, J. E. Kershaw, Hebden Bridge. *Foreign.*—1, E. Horner. 2, A. Warburton.

ROCKS.—*Blue.*—1, E. Horner. 2, B. Rawnsley, Goltstock, Bingley. *hc*, F. Fielder, Todmorden; W. Sutcliffe, Jan., Lower Lathes, Todmorden; J. Crabtree, Ewood (2).

NUNS.—1, E. Horner. 2, J. Richmond. *hc*, G. de Lisle; J. C. Renshaw; E. Horner.

ANY OTHER VARIETY.—1, W. Harvey. 2, W. Sefton. 3, H. Yardley. *hc*, J. Watts; R. White; W. Lumb; J. E. McVitie, Preston; E. Horner.

SELLING CLASS.—1, E. Rawnsley. 2, J. Richmond. *hc*, J. Fielder; W. Lumb; W. Sefton; E. Horner.

RABBITS.

SPANISH.—*Buck or Doe.*—1, J. Boyle, Blackburn. 2, J. Irving, Blackburn. 3, W. Miller & S. Adams, Bradford. *hc*, J. Moore, Keighley. *hc*, J. Chappell, Dewsbury; B. Conderline, Littleborough.

ANGORA.—*Buck or Doe.*—2, Miss A. Walton, Rawtenstall. *hc*, S. Ball, Bradford; T. S. Lacey, Leicester; J. W. Harling, Burnley; S. Bunsley, Healey; G. C. Hutton, Bradford.

HIMALAYAN.—*Buck or Doe.*—1, J. Hallas, Huddersfield. 2, J. Boyle. 3, T. & R.

Mills, Accrington. *phc*, J. Butterworth, Rochdale. *hc*, W. Hey; J. Butterworth; Miss A. Walton.
 SILVER-GRAY—*Buck or Doe*—1, S. Ball. 2, J. Combre, Warrington. 3, R. H. Glaw, Wakefield. *phc*, J. Boyle. *hc*, J. Boyle. Miss A. Walton.
 ANY OTHER VARIETY—*Buck or Doe*—1, J. Irving. 2, J. Hallas. *phc*, H. E. Johnson, Kett-ring. *hc*, J. Boyle; S. Butterworth.
 SELLING CLASS—*Buck or Doe*—1, J. Boyle. 2, G. C. Hutton. *phc*, S. Butterworth. *hc*, J. Chappell; J. W. Harling. *c*, S. Buckley; P. Johnson, Rochdale.

The Judges for Poultry were Messrs. Hutton and Fielding; and for Pigeons and Rabbits, Mr. Hutton.

MIDDLETON POULTRY SHOW.

THE sixteenth annual Show was held at Middleton on the 1st and 2nd inst. The weather was very wet during the first half of the opening day, and this tended to some extent to prevent the influx of visitors, but when the weather cleared-up a great improvement took place in this respect. As compared with its predecessors this Show was a very flat and poor affair, for in poultry and Pigeons we missed the great names of Beldon, Brierley, Fulton, Horner, &c.; and this being the case, with the prizes so good as they are here, we naturally felt a desire to ascertain the causes. These were in the first place the double-number system, which is an insult to both judges and exhibitors, and offers no real advantage; and next, the Show lasting for two days, the birds being exposed for one night in the Show pen with only a little canvas in front in place of a good substantial marquee, and at this time of year such scant protection is insufficient for pampered and high-bred birds; and, lastly, the system of admitting some exhibitors' birds on the morning of the show day, while others are compelled to deliver them the night before. We would advise the Committee to commence a reform, or else this useful and once grand Show will be lost to the fancy.

Game stood first on the list, the first class containing only one bird and the second only two, the awards here being most extraordinary. The first prize went to a Black Red cockerel which had not a single point to recommend it, the second to a perfect Brown Red. In the next class, for cockerel and pullet, a pair of fair Duckwings were first, and Piles second, the prizes being similarly awarded in the cockerel class. Pullets were a fair class, and the cup given to a Brown Red. *Spanish* cockerels, no entries, and in pullets only one. *Dorkings* were good in most classes. The first-prize *Brahma* cockerel and pullet were very good. In pullets, Mr. Watts showed a good pen of Darks. In *Cochins*, cockerel and pullet, Mr. Sidgwick won easily. Mr. Taylor being second, as also in the cockerel class, but in pullets the Rev. C. Spencer took first position. The above remarks refer to the Buff classes. In the next class the first and second were Partridge, and third White, Mr. Taylor winning first with a grand pair of Whites in the pullet class. *Hamburghs* were very poor classes throughout, and yet there were some good pens; but the section was very badly judged, although cockerel and pullet, Golden-pencilled, were an exception, the first and second being grand pens as also in the cockerel class. Of pullets there were only two pens. In Silver-pencilled, cockerel and pullet, the third-prize pen was by far the best; the second-prize cockerel had a lop tail, and the first-prize birds were out of the race in quality. The cockerels, as also the pullets, were properly placed. In the cockerel and pullet Silver-spangled class the winners ought by all means to have changed places, the second being a grand pair of birds. Some really good Black *Hamburghs* were shown in two classes, but the pullets were not up to what we have seen here. In pullets, Mr. Sidgwick showed a handsome pair which should have been first; one of the pullets in the first-prize pen having most decided brown wing ends. *French* fowls were unusually good in both classes, the *Houdans* being especially fine. In the Variety class the first were capital Gold *Polands*, the second were also of that kind, and the third were *Malays*. In *Game Bantams*, cock and hen of any age, the first were Duckwings, second Brown Reds, and third Piles—three of the best pens it has been our lot to see in a prize list. In single cocks the first was a Black Red very good in style but out of feather, second a very good Pile, and third a capital Black Red. In the Variety class the first were Silver Sebrights, second Blacks, and third Gold Sebrights.

Pigeons were a very poor display as a whole, but in some classes we found good pens of birds, notably the Beards shown by Mr. Woodhouse, and some pens of Dragons.

In Rabbits the competition was not strong, 7s. 6d. and 2s. 6d. prizes not being sufficient inducement to make up a good show. In Lops, Mr. Boyle was again to the front with his grand young doe, which, by the way, improves rapidly, the second a Fawn-and-white. In Angoras, the first was a grand doe, the second small. The *Himalayans* proving good, an extra prize was awarded. Silver-Greys were good, the best, a small young Rabbit, lost on account of size only. In the Variety class a Silver-cream doe was first, and Grey-and-white Dutch second.

GAME.—Black-breasted and other Birds.—Cockerel or Pullet.—1, J. F. Walton; H. W. Hoffer, Rawtenstall. Cockerel.—1, Capt. Mitchell, Newchurch. 2, J. F. Walton.

GAME.—Any other variety.—Chickens.—1, J. Fletcher, Stoneclough, Man-

chester. 2, J. F. Walton. 3, E. Aykroyd, Eccleshill. *hc*, D. Harley, Edin-burgh. *c*, M. Jowett, Clayton, Bradford. Cockerel.—1, H. E. Martin, South-thorpe, Fakenham. 2, J. F. Walton. *hc*, T. F. Lyon, Liverpool; E. Aykroyd, *hc*, Rev. E. Bartram, Birkhamstead; T. Bridgman, *c*, T. E. Keil, Wetherby. 3, J. F. Walton. 3, J. Fletcher. 4, W. Higgin, Ulverston; M. Jowett. *hc*, S. Matthew, Stowmarket; D. Harley. *c*, M. Jowett; J. Goodwin, Liverpool; E. Aykroyd.

SPANISH.—Pullets.—1, H. Wilkinson, Earby, Skipton.

DORKINGS.—Chickens.—1, S. Brierley, Edding, Rochdale. 2, J. White, Warlaby, Northallerton. 3, T. Bridgman, Cononley, Leeds. Cockerel.—1, S. Brierley, Pultes.—1, W. W. Rutledge, Storth Eod, Kendal. 2, S. Brierley, *hc*, Rev. E. Bartram, Birkhamstead; T. Bridgman, *c*, T. E. Keil, Wetherby.

BRAMA POOTRA.—Chickens.—1, E. Ryder, Hyde. 2, R. P. Percival, Northenden, Manchester. *hc*, Mrs. E. Wilkinson, Greenheys, Manchester. Cockerel.

—1, W. A. Taylor, Manchester. 2, E. Pritchard, Tettenhall, Wolverhampton.

c, O. E. Cresswell, Early Wood, Bagshot. Pullets.—1, J. Watts, King's Heath, Birmingham. 2, R. P. Percival. *hc*, J. F. Smith, Cherry Mount, Sheffield.

COCHIN-CHINA.—Buff and Cinnamon.—Chickens.—1, C. Sidgwick, Keighley.

2, W. A. Taylor. 3, Rev. C. Spencer, Naunton, Pershore. Cockerel.—1, C. Sidgwick.

2, W. A. Taylor. 3, Rev. C. Spencer. 2, W. A. Taylor. *hc*, J. W. A. Taylor. 2, C. Sidgwick.

COCHIN-CHINA.—Any other variety.—Chickens.—1, C. Sidgwick. 2 and 3, W. A. Taylor. Cockerel.—1, W. A. Taylor. 2, C. Sidgwick. Pullets.—1, W. A. Taylor. 2, C. Sidgwick.

HAMBURGH.—Gold-pencilled.—Chickens.—1, G. & J. Duckworth, Church. 2, W. Speakman, Nantwich. 3, W. Clayton, Keighley. Cockerel.—1, G. & J. Duckworth. 2, W. Driver, Keighley. Pullets.—1, Driver. 2, R. Simpson.

HAMBURGH.—Silver-pencilled.—Chickens.—1, J. Lee, Middleton. 2, J. Long, Bromley Common. 3, J. Smith, Keighley. Cockerel.—1, J. Lee. 2, J. Long. Pullets.—1, J. Long. 2, J. Lee. *hc*, H. Smith; T. Hanson, Keighley.

HAMBURGH.—Gold-spangled.—Chickens.—1, T. May, Wolverhampton. 2, G. and J. Duckworth, Church. Cockerel.—1, T. E. Jones, Wolverhampton. 2, J. H. Rooth, Holmfirth. Pullets.—1, J. Buckley, Tannock, Ashton-under-Lyne.

HAMBURGH.—Silver-spangled.—Chickens.—1, J. Fielding. 2, J. Long. Cockerel.—1, J. Fielding. Pullets.—1, J. Fielding. 2, S. Lanceshire, Tongue Chatterton.

HAMBURGH.—Black.—Chickens.—1, C. Sidgwick. 2, H. Hoyle, Lumb. *hc*, J. Long. Cockerel.—1, C. Sidgwick. 2, H. Hoyle. Pullets.—1, Stott & Booth, Hunley Brook, Bury. 2, C. Sidgwick. *hc*, H. Hoyle.

FRENCH FOWLS.—Chickens.—1, Rev. C. C. Ewbank, Binglewade. 2, G. Berry, Little Henton. 3, R. H. Wood, Uttoxeter. *hc*, Rev. A. J. L. Dobbin, Raddington Vicarage; T. Yates, Unsworth, Bury; W. Dring, Faversham; G. W. H. H. Godley, *hc*, J. J. Madden, Binglewade. Cockerel.—1, R. E. Bury. 2, Rev. C. C. Ewbank, Binglewade. *hc*, G. W. H. H. Godley. Pullets.—1, Rev. C. C. Ewbank. 2, T. Yates, Unsworth, Bury. *hc*, W. Dring.

ANY OTHER VARIETY.—Chickens.—1, T. Dean, Keighley. 2, J. Fearnley, Linton, Newton-le-Willows. 3, J. F. Walton, Horncliffe, Rawtinstall. *hc*, H. Feast, Swansae; W. A. Taylor, Manchester. Cockerel.—2, J. F. Walton. *hc*, J. Fearnley.

GAME BANTAMS.—1, W. F. Entwistle. 2, E. Walton; W. F. Entwistle. *phc*, J. E. Entwistle, Barmham; *hc*, J. E. Entwistle, Southwell. 3, J. Frith, Chatsworth, Bakewell. Cockerel or Cockerel.—1, W. Baskerville. 2, R. Proudie, Kirkcaldy. 3, W. F. Entwistle. *hc*, G. Hall, Kendal; J. Frith (2); W. F. Entwistle; G. Anderton, Accrington.

BANTAMS.—Any other variety.—1, J. W. Lloyd, Kingston. 2, R. H. Ashton, Mottam. 3 and *phc*, M. Leno, Markyate Street, Dunstable. *hc*, W. H. Robin-son, Keighley.

SELLING CLASSES.—1, J. Walker, Rochdale. 2, W. Hey, Rochdale. 3, A. Bamford, Middleton. Cockerel or Cockerel.—1, J. Walker. 2, J. R. Fletcher, Stoneclough. Pullets.—1, C. Bloodworth, Cheltenham. 2, H. Wilkinson, Earby. *hc*, T. Wakefield, Golborne; Mrs. E. Wilkinson, Greenheys, Manches-ter; P. W. Abram, Wigan.

DUCKINGS.—Aylesbury.—1, C. Holt, Rochdale. 2 and 3, J. Walker. *phc*, R. Hutchinson, Littleborough. *houn*—1 and 5, T. Wakefield. 2, J. Walker. *hc*, T. Wakefield; C. Holt. Any other variety.—1 and 3, H. B. Smith, Broughton. 2, M. Leno. *hc*, J. Walker; H. B. Smith.

GOULDINS.—1 and 2, J. Walker. *hc*, J. White, Whiteley, Netherlton.

TURKEYS.—1, J. Walker.

PIGEONS

TEMBLES.—Balds or Beards.—1, W. Woodhouse, Lynn. 2, T. & W. Oddie, Brierfield, Burnley. Any other variety.—1, R. Minnitt, Rochdale. 2, A. & W. H. Silvester, Sheffield.

CARRIER.—1, W. Richardson, Manchester. 2, S. Dronsfield, Werneth Oldham.

PISTERS.—Cock.—1, D. Garside, Broughton. 2, W. J. Warhurst, Staly bridge. *hen*—1, W. Richardson, Manchester. 2, R. White, Manchester.

BARKS.—1, S. Dronsfield. 2, J. Royle, Manchester.

TURBETS.—1, R. White. 2, J. B. Bowdon, Blackburn.

FANTAILS.—1, J. F. Loversidge, Newark. *c*, J. F. Loversidge; R. White; J. B. Bowdon.

OWLS.—1, A. Hunter, Middleton.

SKYS.—1, J. B. Bowdon. 2, J. C. Renshaw.

DRAGONS.—1, S. Dronsfield. 2, H. K. Molyneux, Manchester. *c*, S. Dronsfield; W. Smith, Walton.

BELGIANS.—Long-faced.—1, C. Hopwood, Rochdale. 2, F. Ramsbottom, Middle-ton. Short-faced.—1, J. C. Renshaw. 2, J. P. Rothwell.

ANY OTHER VARIETY.—1, J. B. Bowdon. 2, A. & W. H. Silvester.

SELLING CLASS.—1, R. White. 2, J. Watts, King's Heath, Birmingham. *c*, W. Richardson.

RABBITS

SPANISH.—1, J. Royle, Blackburn. 2 and *hc*, E. Higman, Middleton.

ANGORA.—1, Miss A. Walter, Rawtenstall. 2, J. Boyle.

HIMALAYAN.—1 and Extra 2, W. Hodgkinson, Heywood. 2, C. G. Mason, Rochdale. *hc*, C. G. Mason; Miss A. Walton.

SILVER-GRAY.—1, T. H. Shore, Rochdale. 2, C. G. Mason. *hc*, J. Boyle.

ANY OTHER VARIETY.—1 and 2, J. Boyle.

SELLING CLASS.—1, J. Butterworth, Rochdale. 2, S. Buckley, Healey. *hc*, C. J. Mason.

The Judges were, for *Cochins* and *Brahmas*, Capt. Heaton for other poultry, Mr. Simon Fielding; for *Pigeons*, the above two gentlemen; and for *Rabbits*, Mr. E. E. M. Roysds.

BEE-KEEPER'S CALENDAR FOR SEPTEMBER.

A good foundation is the principal thing in bee-keeping. Fundamental principles well understood are of more importance and value to intelligent readers than volumes of details of management. Last month the selection and preparation of stock hives were considered. Strong stocks cause no anxiety to their owners; they are able to bear the severities of winters; they swarm earlier than weaker stocks, and do far more work. For profit six strong stocks of bees are equal to twelve weak ones. Some eight or ten years ago condemned bees in this locality could be had for driving. If the cottagers obtained the honey, they cared not for the bees. Some years later 2s. 6d. was the price asked for a swarm, and the buyer had to drive them.

Now for miles round Manchester but few swarms of condemned bees can be had at any price. Here, as elsewhere in England, bee management had made no progress for a hundred years. Large hives dropped into Lancashire and North Cheshire. Their owner was condemned for his ignorance of bees and bee-keeping "in this cold climate." Now large hives are in vogue; the lives of bees are precious; bee-keeping is becoming an art and a science. Working men are obtaining from 20 lbs. to 40 lbs. per hive three weeks after swarming. The mists of ignorance are passing off, and apirians are beginning to see and know what can be done.

Those who keep their bees in bar-frame hives should take especial care of the brood combs in the honey hives. The stock hives would be greatly improved and strengthened by the brood of the honey hives. Every apirian who uses bar frames knows how to remove a comb filled with honey or an empty one, and put a brood one in its place. The brood hatched now lives all the winter; the more brood a stock hive has now, the stronger in bees it will be next spring. If a hive has six sheets or combs of brood now, it will be in good condition next spring, so far as population goes. Six combs of brood now indicate five seams of bees at the beginning of March next. I wish the young apirian to make a note of this simple remark, for he will find it of great importance in guiding him in future years at the season of selection.

At the end of August and beginning of September honey-gathering generally ends, and drones are killed off. If the bees of one or more hives do not seem to molest the drones, there is some reason to fear that they have lost their queens. An examination should be made, first by looking for brood in the hives, and secondly, if none can be found, by driving the bees to see if they have queens. Queenless swarms will remain in a hive of combs if they were there when bereft of their queens, but will not settle or remain in an empty hive if driven into it. An experienced man can very often tell from the conduct of the bees whether they are queenless or not. Such knowledge comes by observation, and not from books. Of course queenless hives at this season should either be set aside for honey, or for the receptions of queens and bees from honey hives.

In fair weather bees instinctively seek honey. If it cannot be had from the fields, they try to get it by robbing other hives. In September perhaps more attempts at pillage are made than in any other month. The doors of all hives should be contracted to help the bees to defend their stores.

September is the best month for autumn-feeding. There is considerable risk run in feeding late, for feeding continuously in October or November very often causes the bees to breed. If frost set in before the brood be hatched, it is often destroyed in part, and becomes foul and ruinous to hives. Winter-feeding indicates neglect or ignorance. Hives that have not stored enough should be fed as soon as possible or convenient. About 15 lbs. of honey or stored syrup keeps a strong hive of bees from September till March. Better have 3 lbs. or 4 lbs. more than is required, than an ounce too little. About the half of 15 lbs. will serve the bees of small old fashioned hives during the autumn and winter months. Let food be given according to population. Three swarms eat as much in one hive as they do in three separate ones.

We now come to the honey hives, and by weighing them we can ascertain how much honey they contain before the bees are driven out of them. We have a rule or standard of calculation. After deducting the weight of hives and bees we reckon 5 lbs. of honey for every 7 lbs. weight. A hive may weigh 100 lbs. The hive, board, and bees may weigh 20 lbs., leaving 80 lbs. of combs. According to our standard there would be about 60 lbs. of honey and 20 lbs. of refuse. The refuse from old combs and lean hives is greater than the standard indicates, and in the case of heavy hives of the current year's swarms (with young combs), the yield of honey will be greater than the standard. In the case, too, of hives without brood the refuse will be less and the yield of honey greater. The standard given is accurate enough for practical apirians.—A. PETTIGREW.

(To be continued.)

NADIRING.

I AM glad that your correspondent "B. & W." admits the distinction between the nadir proper of Taylor and Pettigrew, and the "nether" of the former, which he calls the "quasi-nadir." I venture to suggest that it will save much confusion to bee-keepers in their interchanges of thought and experience if they will adopt Taylor's expression "nether," which is, after all, the more correct opposite to "super," for an additional chamber given below instead of above. The term nadir will then resume its original signification of a hive placed under another hive, "in order that it may be treated as a stock hive another year."

I may mention that I have only found the nadir proper answer with strong and early swarms of the current year. I

have adopted it several times with stock hives to prevent their swarming, but always without success.

As for bee houses, they may be necessary for a few favourite wooden hives; but for the rank and file give me Mr. Pettigrew's three posts, which can easily be made low enough for nadir or "nether" to rest upon with safety.—E. H. R.

CRYSTAL PALACE EXHIBITION OF BEES, HIVES, HONEY, &c.

THE following are the awards at this Show, which opened on the 8th inst., and will be continued to-day. We shall give a report of the exhibits next week.

HIVES.

Hive for observation purposes.—Withheld.
Skep or box hive for depriving purposes, for cottagers' use, that can be supplied for 3s., exclusive of floor-board.—Prize, C. N. Abbott.
Moveable comb hive for depriving purposes.—Prize, F. Cheshire.
Hive for use on the storifying principle.—Prize, J. Lee.
Hive for use on the collateral principle.—Withheld.
Most economical (best and cheapest) complete hive on the moveable comb principle, for cottagers' use.—Prize, C. N. Abbott.

BEES.

Most beautiful breed of Lignian bees—i.e., a queen accompanied by her progeny, the beauty of the queen to be of secondary importance.—Prize, C. W. Smith.

HONEY.

Largest and best harvest from one stock of bees, under any system or combination of systems, the same to be declared on exhibition.—Equal, A. Ferguson, Hon. and Rev. H. Bligh, C. N. Abbott.

Exhibition of super honey from one apiary.—1, Rev. C. Raynor. 2 and 3,

Withheld.
Sraw super of honey, net contents above 20 lbs.—1, W. H. Clark. 2, J. Lee.
Sraw super of honey, net contents not under 14 lbs., nor above 20 lbs.—Prize, Mrs. Pagden.

Sraw super of honey, net contents not under 10 lbs., nor above 14 lbs.—Prize, T. Bagshaw.

Wood super of honey (for wood in combination with glass or straw), net contents above 20 lbs.—1, W. H. Clark. 2, J. Anderson. 3, A. Rusbridge.

Wood super of honey (for wood in combination with glass or straw), net contents not under 14 lbs., nor above 20 lbs.—Equal merit, W. Sward; J. Anderson, R. Graham, R. Anderson, D. Anderson, A. McCrone.

Wood super of honey (or wood in combination with glass or straw), net contents not under 10 lbs., nor above 14 lbs.—1, J. Anderson. 2, R. Anderson. 3, Mrs. Pagden.

Glass super of honey, net contents above 20 lbs.—1, G. Fox. 2, T. W. Cowan. 3, S. Thorne.

Glass super of honey, net contents not under 14 lbs., nor above 20 lbs.—1, T. Plunridge. 2, T. Bagshaw. 3, W. Martin.

Glass super of honey, net contents not under 10 lbs., nor above 14 lbs.—1, S. Thorne. 2, D. King.

Glass super of honey, net contents not under 6 lbs., nor above 10 lbs.—1, T. Plunridge. 2, J. Lightton. 3, T. Bagshaw.

Display of honey in comb for table use.—1, J. Anderson. 2, D. Anderson. 3, Withheld.

Exhibition of run honey in glasses of from 5 lbs. to 10 lbs. each, net contents, the produce of one apiary.—1, C. N. Abbott. 2, J. Anderson. 3, W. Laughland.

Exhibition of run beather honey in glasses of from 5 lbs. to 10 lbs. each, net contents.—1, D. Anderson. 2, J. Anderson.

Exhibition of honey, obtained by the use of the honey-extractor, from one colony.—1, C. N. Abbott.

COTTAGERS' CLASSES.

Largest and best exhibition of super honey in comb, gathered by one stock, or united swarms of bees, the property of exhibitor.—1, H. Withall. 2, S. J. Baldwin. Remainder withheld.

Exhibition of honey in comb, produced in one apiary, without the destruction of the bees.—1, A. Ferguson. 2, M. Freeman.

Exhibition of run honey in glass jars, containing from 5 lbs. to 1 lbs. each.—1, W. Martin. 2, W. Secker. 3, J. Stephenson. 4, Withheld.

MISCELLANEOUS.

Best and largest collection of hives, bee furniture, bee gear, and apicalist's necessities, no two articles to be alike.—1, C. N. Abbott. 2, J. Lee.

Drone trap.—1, F. Cheshire.

Bee feeder, the invention or adaptation of the exhibitor.—Prize, J. S. Turner.

Appliance for introducing alien queen bees to stocks.—Prize, J. Anderson.

Bee dress.—Prize, C. W. Smith.

Method of quieting bees during manipulation, with appliances shown.—Prize, F. Cheshire.

Cheapest and best supers for general use in an apiary.—Prize, J. Lee.

Honey extractor.—Prize, Starling & Co.

Machine for embossing wax sheets for guide combs, with at least six sheets manufactured by it.—Prize, G. Neighbour & Sons.

Exhibition of pure bees' wax, the produce of 1874, in cakes of not less than 1 lb. in weight.—1, W. Martin. 2, W. Loughland. 3, J. Waiter.

Any new invention calculated in the opinion of the Judges, to advance the culture of bees.—Extra, F. Cheshire (4).

DOGS.—No. 5.

TERRIERS IN GENERAL.

ALTHOUGH at the Home for Lost Dogs in London there are always, I believe, a greater number of retrievers than of any other variety (why this is the case I can never make out), yet I think that retrievers are not by any means so numerous in England as many other kinds of dogs. If you take your stand at the market-place of any town in England, particularly near the largest butcher's shop, you will find that place and that spot form the meeting ground for the town dogs. At any corner of any street two or three dogs will generally be found surveying each other with, usually, great curiosity, occasionally with great anger, and sometimes with the direct opposite to anger; but still, at the market-place is the grand gathering. Let but a carriage from the country arrive with a dog or two in attend-

ance, very soon numbers of dogs will be around the strangers—the thin, the thick, the young, the old, the light and active, the heavy and wheezy (the last always ill-tempered), the bold, and the timid. Why, the place at once swarms with dogs, especially since the reduction of the tax. Now I will venture to say further, that by far the great majority of these dogs are terriers, either rough or smooth, either well-bred or ill-bred, or of mixed breed, but the terrier blood is predominant. Occasionally an ill-marked Dalmatian is seen; also, if you keep a good look-out, dog-loving reader, you will sometimes see a dog you may think extinct—viz., a turosip. Spaniels there will be, retrievers, pointers, sheepdogs, and even a greyhound or two, but the greater number will be terriers, or terriers in part, as bull terriers. There are many reasons for this. The terrier is a dog of a convenient size—not over-large, so as to require a great deal of food or much space; not so small as to want to be carried or protected in any way. No: he can take care of himself, fight his own battles, find his way about by himself; he will eat anything, and do well on almost anything. A plucky vigorous little dog, his race is a numerous one.

Terriers abound, and will abound—unlike Persian or Angora cats, of which there are many pure specimens kept, and now and then one sees a half breed, and then the race is merged into the common and lost. The long-haired cat does not alter the English cats; he does not leave his mark upon the feline race in this country; he would soon be stamped out but for the care of amateurs. Not so the terrier. "I will live and I will thrive," seems to be the motto of that energetic little dog.

But there is yet another reason for the great abundance of terrier dogs in England. Rats abound, yea, superabound, and the terrier is a dog of utility in this respect—he is a rat-killer. Rats, I said, superabound. In the London warehouse, to the country outhouse, on shipboard, in rural granaries—everywhere is that pestilent, food-destroying, abhorrent little animal the rat. A London warehouse fell down towards the Thames a few years since. What was the result? The river for some yards was at once black with rats. A farmer pulls down his wheat-rick to dress the corn. As the rick is removed layer by layer the vermin retreat lower and lower; then at last out they run, and the farmer who is wise has his own and his neighbours' terriers at hand to catch and kill the pestilent vermin. Some men with a turn for making calculations has estimated the annual cost to this country of rats—what a tax they lay upon us—and the sum is an enormous one. There need be no wonder, then, that terriers are kept extensively, had they no other recommendation than this that they are sworn foes to rats. Then the pluck the little dogs show in facing the vermin! How a fierce bite only makes them keener after their prey; also their thorough enjoyment of the fun—it is their sport, their pastime, their supreme pleasure. All is done, too, from love of the sport, not for love of their bellies, for they do not eat rats. No master of hounds enjoys fox-hunting more than a terrier enjoys rat-hunting. How appreciative of the fun is that little nose of his, sniffing at the rat-holes in a wall! I never see him there without thinking of Buffon's shrewd and true remark, "A dog's nose is his third eye."

A terrier, rough or smooth, wire-haired or fox, black-and-tan or white, Scotch or English, is the general dog of utility because he is a rat-killer, and rats abound everywhere. The terrier is also a good guard and a good follower. This latter is much to a man who likes a canine companion. A dog with too much bull is a stupid dog in following his master, and at the first sharp turn raises his heavy head in the air, and very probably loses his master. Not so the better-nosed terrier; he keeps his head to the ground, and invariably finds the way his master has gone. Never have I known a terrier—and I have kept many—lose himself. He will find his way from a large town (say Bath) back to his country home readily, though it be miles away. Well is he named terrier, for with his nose to earth he finds his way about the earth's surface. He has no fear at entering the earth after fox, or weasel, or rat, or any other vermin. Very large dogs require very large premises, or they are unpleasant to the nose and injurious to health. Very little dogs are troublesome because of their weakness, timidity, and smallness, and require much attention. They must have a loving mistress to see after them; but the terrier needs no park kennel to be stowed away in from people's noses, as any number of large dogs must be; he also needs no petting, though he likes it well enough. Like middle-sized men, terriers are the most useful. Not the big guardsmen or the dainty dapper Light Dragoons are the strength of the English army, but the common line regiments composed of middle-sized men. So of terriers generally.

In future papers I hope to speak of the different varieties. I hope to call up from an unerring memory in fancy matters the terriers of a past age, and to depict the terriers of the present age. The terrier is the Englishman's prime favourite. Witness the fox terriers who at all shows are so numerous as to be themselves a show. He stands midway in size between the large and the small—the dangerous from their strength, and the trouble-causing from their weakness.—WILTSHIRE RECTOR.

OUR LETTER BOX.

HAMBURGH PULLETS' LEGS WEAK (J. A.).—You do not give sufficient information. You should tell us how the birds are lodged and fed. Much depends on that. Weakness is often the result of bad feeding in youth. Sometimes it is caused by unnatural and stimulating food, sometimes by damp and bad flooring to the houses in which they roost. If the birds are in strong condition we advise you to purge them freely with castor oil, say a table-spoonful every other day for a week, and then give bread and ale freely. We can say nothing about the Dorkings for want of information. We shall be happy to give you all in our power if you will enable us to do so.

DARK BRAHMAS WHITE-FEATHERED (J. P.).—If your Dark Brahmas is a larger and better-shaped bird than his opponents, a judge is not justified in withholding a prize from him because he has white feathers on his breast. The original and the best Brahmas we ever had, had white spots on the breast. Any plumage may be washed with soap and water applied with a dandel, but fowls running in the country should not want it. We shall be very glad to see your account.

POULTRY-HOUSE PERCHES (T. C.).—Your perches should be made of a fir tree or other tree, 14 or 18 inches in circumference, sawn in half, and the round part put uppermost with the bark on. They should be within 24 inches of the ground, and should rest on side pieces or supports, but should not be fastened down, as they are easier to clean when they are moveable.

SPANISH COCKEREL'S WHITE FEATHERS (Resurgam).—It is no detriment to the Spanish cockerel to have a white feather in the flight. They are all hatched with it, but they moult black. Pull them out. We have not yet seen a schedule of the Crystal Palace Show.

COTTINGHAM SHOW.—The following is a corrected list of the prizes awarded to cage birds:—*Yellow or Norwich Canary* (twelve entries).—1, T. Neil, Beverley. 2, W. Forth, Fockington. *Belgian or Half-bred Canary* (ten entries).—1, W. Forth. 2, L. Melnecke, Hull. *Any other Variety of Song Bird* (five entries).—1, W. Needler, Hull. 2, L. Melnecke. *Marked Canary* (ten entries).—1, J. Dowds, Beverley. 2, F. Preston, Hesse. *Canary of any Variety* (twelve entries).—1, Taylor & Clarkson.

LINNETS (H. B.).—The Grey and the Redpoll Linnets are distinct species. Brent's "British Song Birds" details their management and that of Canaries. You can have it from our office by post if you enclose twenty postage stamps with your address.

DISPOSING OF SILK (S. E. E.).—Unless reeled so as to suit the requirements of the manufacturer—that is, so as to form threads by reeling off several cocoons together, you will be unable to sell it otherwise than as floss. We cannot say where you can find a market for it.

METEOROLOGICAL OBSERVATIONS, CAMDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W.; Altitude 111 feet.

Date.		9 A.M.				IN THE DAY.						Rain.
1874.	Sept.	Baromet- er at 32° and Sea Level.	Hygromet- er.		Direction of Wind.	Temp. of Solar at 1 foot.	Shade Tem- perature.		Radiation Temperature		In. — In.	
			Dry.	Wet.			Max.	Min.	In sun.	On grass		
We.	2	Inches.	deg.	deg.	S.	deg.	deg.	deg.	deg.	deg.	In.	
Fri.	3	29.887	63.0	59.7	S.W.	61.5	72.5	54.0	125.6	52.2	—	
Tu.	4	29.929	61.9	59.9	S.W.	61.0	66.8	54.1	83.3	51.5	0.3 0	
Sat.	5	29.914	59.9	54.6	S.W.	59.6	68.5	52.0	108.5	5.2	0.063	
Sun.	6	29.907	57.9	52.9	S.W.	59.0	67.0	45.1	119.4	44.2	—	
Sun.	6	29.95	57.0	54.2	S.W.	57.9	58.6	50.4	69.4	47.8	0.258	
Mo.	7	29.083	56.8	55.2	S.W.	58.0	67.8	51.5	99.2	48.0	0.066	
Tu.	8	29.997	61.2	58.0	S.W.	59.0	67.2	55.1	87.8	54.3	—	
Means		29.970	59.5	56.4		59.3	66.2	51.9	99.0	49.7	0.741	

REMARKS.

- 2nd.—Fine all day; very fine and calm at night.
3rd.—Slight shower in the morning; fine afternoon; wet evening and night; occasional thunder.
4th.—Two or three showers, but fine afternoon and evening.
5th.—Pleasant day throughout, morning and evening very fine; wind rather strong and cool.
6th.—Fine early, but rain before 9 A.M.; a cold rainy day, scarce any sun at any time during the day.
7th.—Wet early, dull at 8 P.M., fine in the middle of the day; but wet evening and night.
8th.—Dull showery day, but warmer than during the last few days.

A regular autumnal week, very cloudy and damp.—G. J. SYMONS.

COVENT GARDEN MARKET.—SEPTEMBER 9.

MARKETS rather dull. Supply ample, both English and foreign; outdoor Peaches and Nectarines being very plentiful. All descriptions of Plums are very abundant this season.

FRUIT.

	s.	d.	s.	d.		s.	d.	s.	d.		
Apples.....	1	0	10	6	Mulberries.....	½	lb.	1	0	0	0
Apricots.....	doz.	0	0	0	Nectarines.....	doz.	3	0	6	0	
Cherries.....	½	lb.	0	0	Oranges.....	½	100	12	0	24	0
Chestnuts.....	bushel	0	0	0	Peaches.....	doz.	3	0	6	0	
Currants.....	½	sieve	4	0	Pears, kitchen.....	doz.	0	0	0	0	
Black.....	do.	0	0	0	dessert.....	doz.	2	0	0	0	
Figs.....	doz.	1	0	2	Pine Apples.....	lb.	2	0	6	0	
Filberts.....	lb.	1	0	1	Plums.....	½	sieve	3	0	4	0
Cobs.....	½	lb.	1	0	Quinces.....	doz.	0	0	0	0	
Gooseberries.....	quart	0	6	0	Raspberries.....	lb.	0	0	0	0	
Grapes, bothouse.....	lb.	1	6	0	Strawberries.....	½	lb.	0	0	0	0
Lemons.....	½	100	12	0	Walnuts.....	bushel	10	0	16	0	
Melons.....	each	3	0	6	ditto.....	½	100	2	0	2	0

WEEKLY CALENDAR.

Day of Month	Day of Week.	SEPTEMBER 17—23, 1874.	Average Temperature near London.			Rain in 43 years.	Sun Rises	Sun Sets.	Moon Rises.	Moon Sets.	Moon's Age.	Clock after Sun.	Day of Year.
	Th		Day.	Night.	Mean.	Days.	m. h.	m. h.	m. h.	m. h.	Days.	m. a.	
18	F	Cambridgeshire Horticultural Show.	68.9	41.9	56.9	16	40 45	9 46	18 2	20 8	7	5 33	260
19	S	Northampton Horticultural Show.	68.3	46.5	57.4	19	41 5	7 6	18 2	56 8	7	5 55	261
20	S	Twilight ends 8.3 P.M.	67.3	45.3	56.3	21	43 5	5 6	19 8	48 9	9	6 16	262
20	SUN	16 SUNDAY AFTER TRINITY.	63.0	41.0	56.0	20	41 6	2 6	8 4	56 10	10	6 37	263
21	M	Faber died, 1702.	66.4	45.6	56.0	24	46 5	0 6	45 4	morn.	11	6 58	264
22	Tu		66.4	44.7	55.6	21	48 5	58 5	11 5	17 0	12	7 19	265
23	W	Boerhaave died, 1738.	66.3	45.7	55.9	22	49 5	55 5	30 5	45 1	13	7 40	266

From observations taken near London during forty-three years, the average day temperature of the week is 67.3°; and its night temperature 45.3°. The greatest heat was 81°, on the 20th, 1843; and the lowest cold 32°, on the 29th, 1810. The greatest fall of rain was 1.21 inch.

THE CARPET AND TAPESTRY BEDS AT HAMPTON COURT.—No. 1.



F the great public gardens and parks in the neighbourhood of the metropolis, Hampton Court is this year second to none for beauty and good keeping. The grounds are now in fine trim, and the elegant flower beds are extremely gay, exhibiting tasteful variations that cannot fail to please every eye. There are few views of such exceptional beauty as those which can be gained here from many points, especially from the windows of the Palace; and of the many places in the vicinity

of London, Hampton Court is certainly one of the most attractive, and as such has long and justly possessed a great celebrity. Here we have the happy combination of artificial with natural scenery; the position of the grounds affording varied and beautiful prospects, whilst avenues of stately trees stretch far into the distance, and closer at hand softened outlines are shown on a carpet of verdure.

There are many points of attraction in this garden, but one of its principal features this year is the carpet and tapestry beds, of which plans will be given in this and subsequent numbers. All the flower beds are planted with subjects exhibiting striking and varied colours, and are charmingly effective, showing the great skill and

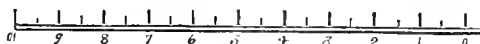
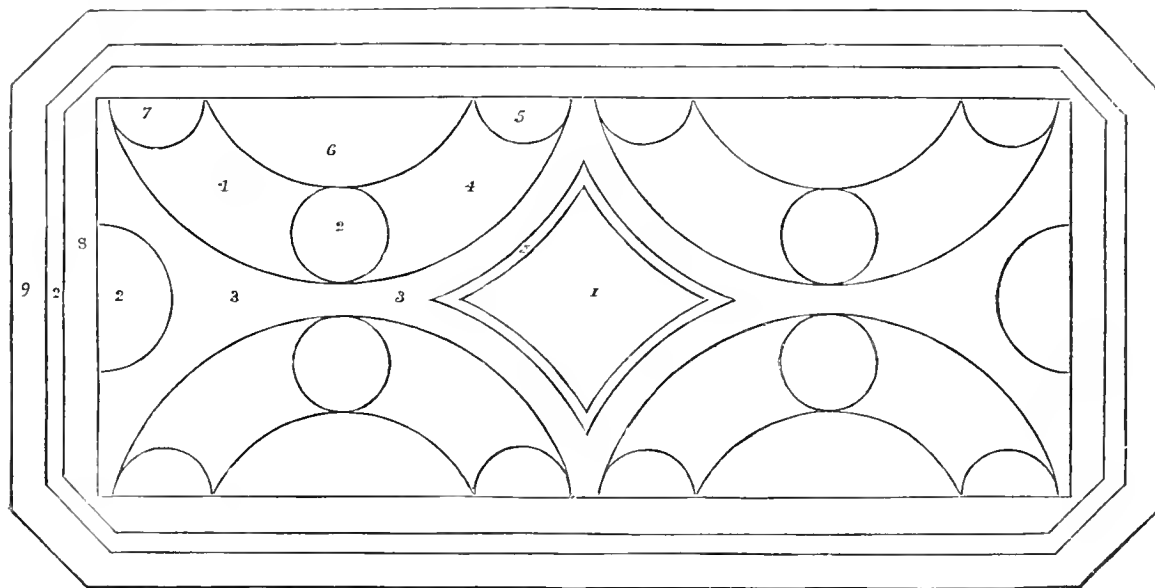


Fig. 74.

- | | | |
|---|---|--|
| 1, <i>Coleus Ruckeri</i> | 4, <i>Alternanthera amabilis</i> | 7, <i>Sedum glaucum</i> |
| 2, <i>Lobelia pumila grandiflora</i> | 5, <i>Echeveria metallica glauca</i> | 8, <i>Alternanthera paronychioides</i> |
| 3, <i>Pyrethrum parthenifolium</i> Golden Feather | 6, <i>Mesembryanthemum cordifolium</i> variegatum | 9, <i>Cerastium Biebersteini</i> |

patient industry that have been exercised by Mr. Brown, the new superintendent. Among the combinations of plants not to be found in the plans which I purpose giving are:—

Amaranthus melancholicus ruber, *Koniga variegata*, and *Lobelia speciosa*.

Bright rose *Pelargonium*, *Perilla nankinensis*, crimson *Pelargonium*, and Golden Thyme.

Young *Aucubas* and *Iresine Lindeni*.

No. 793.—VOL XXVII., NEW SERIES.

Scarlet *Tropæolum Lobbianum* mixed with *Iresine acuminata*, edging of *Gnaphalium lanatum*.

Veronica Andersoni variegata, mixed and edged with *Perilla nankinensis*.

Brazilian Beet and *Cineraria maritima compacta*.

Coleus Mrs. Begg, blackish red, with yellow edging; and *Pelargonium Robert Fish*, light yellow leaves and scarlet flowers.

Variegated Mint and *Coleus Batemanni*, blackish purple.

No. 1855.—VOL. LII., OLD SERIES.

Dark salmon Pelargonium Lucius, Perilla nankinensis, and Dactylis glomerata variegata.

Light yellow Roses mixed with scarlet Pelargoniums, yellow and blue Viola cornuta, edged with Viola tricolor Goliath.

Brazilian Beet and Alyssum saxatile variegatum.

Silver-edged Pelargonium Bijou, Amaranthus melancholicus ruber, Golden Tricolor Pelargonium Sophia Dumaesque, Iresine Lindeni, and light bronzed-leaved Pelargonium Criterion.

Dark salmon Pelargonium Hector, Amaranthus melanco-

Woodstock, but to notice one who has made it famous in a horticultural point of view by his connection with it, and into whose company accidental circumstances brought me at a time when other horticultural friends had specially met for an important purpose. I must say that a more hospitable greeting and a mutual interchange of ideas could not possibly have been accorded to anyone, and some three hours or more of a warm summer day could not have been more agreeably and profitably spent than was done by the gentlemen there as-

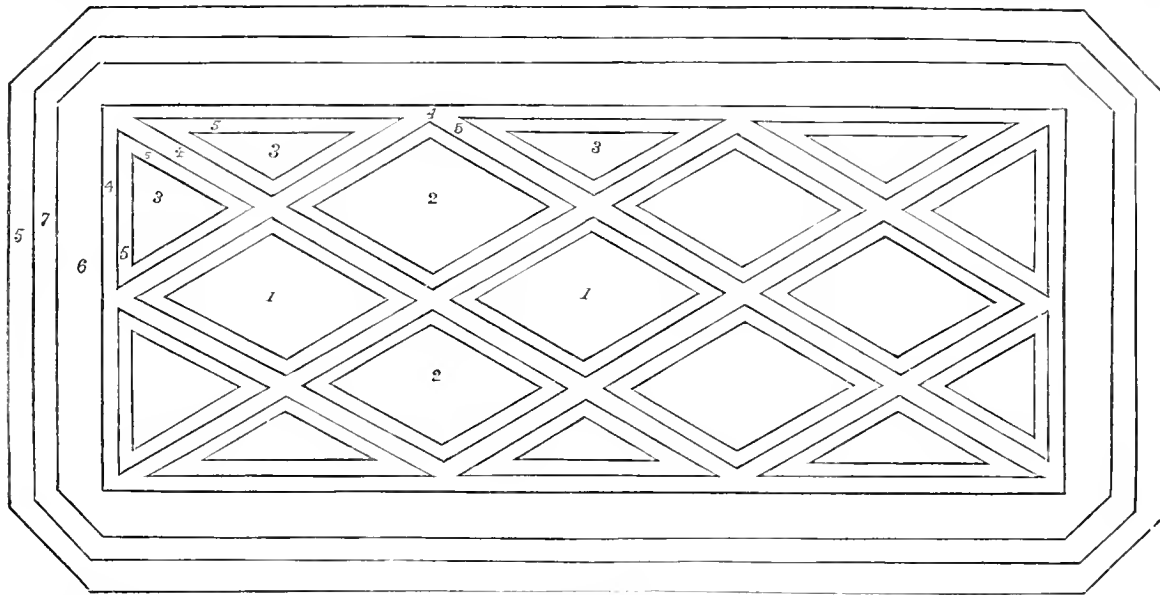


Fig. 55.

- 1, Iresine Lindeni
2, Pyrethrum parthenifolium Golden Feather
3, Lobelia pumila grandiflora

- 4, Echeveria secunda glauca
5, Sempervivum californicum

- 6, Mesembryanthemum cordifolium variegatum
7, Alternanthera magnifica

licus ruber, Pelargonium Bijou, Iresine Lindeni, Pelargonium Robert Fish, and Viola Cornuta Perfection.—N. COLE, *Kensington Gardens*.

MR. FENN AND HIS POTATOES.

THERE are few who have not heard of the interesting old town of Woodstock, the abode of the fair but unfortunate Rosamond, while Sir Walter Scott has thrown an interesting halo over it as being the scene of one of his inimitable novels. The town, a Royal borough, had evidently been a place of importance long before the present busy hives of industry had an existence; it occupies a favourable site, and its neighbourhood must at all times have been noted for its fertility, which still continues. In its present aspect Woodstock presents a strong contrast to the old towns of the east of England, being mostly if not entirely built of stone, which here occurs in great abundance. I am not sure that the present mode of colouring the walls of such buildings a pale yellow is a recent or ancient practice, nor am I certain that it in all cases improves their appearance, but it tends to give that uniformity which is by many thought desirable. Woodstock contrasts well with many other old towns in the width of its streets; not that they compare with Oxford Street or Piccadilly, but they are wider and less crooked than those of towns that have not undergone the changes which Town Councils now and then enforce when opportunity offers. It has also the merit of being a clean town, if cleanliness in the sense here spoken of be a merit, which, by-the-by, a particular friend of mine disputes very much, alleging that dirt and money always go together, and that a town recommended for its cleanliness exhibits less of prosperity and progress than a bustling dirty one. Of course some exception must be made to this rule, and I believe Woodstock to be one of those respectable towns in which business is carried on with steadiness, the manufacture of gloves being one of its most important branches.

My purpose, however, is not to descant on the trade of

sembled, and as far as I was concerned I must regard it as one of my red-letter days. But before we go further I must inform your readers that the subject on which the meeting was convened was Potatoes; not to settle any angry dispute about extraordinarily heavy Grapes, or the merits of a newly-introduced plant, or the *début* of some variety of Golden Geranium with astounding qualifications, but simply to devote a specified time to the examination of a great number of varieties of Potatoes, and in some degree to test their merits. The latter part of the programme was, I believe, further gone into after I was obliged to leave, which I did with great reluctance; but as the reader has not yet been informed who was the host, I must state it was our very worthy contributor Mr. Robert Fenn, whose labours in the cause of the Potato are so widely known, and their results so disinterestedly made public. The reader has only to turn back to the earlier numbers of this Journal to become acquainted with the pains he has taken to propagate new and distinct varieties, and the long years of patient industry which elapsed before he was rewarded with the improved varieties which he has obtained, and these I hope will be followed by others of equal or perhaps greater merit.

To the ordinary cultivator who has his score of acres it may appear a somewhat frivolous occupation for a steady observing person to be looking over rows of Potatoes when in bloom, and selecting a few flowers from which he will remove the anthers and introduce the pollen from another variety to effect fertilisation, marking the flower in some way known only to himself. Occasional visits are afterwards made to these flowers, and especial care is taken, when a fruit is formed and it approaches maturity, that the same mystical notes shall accompany the seed to its resting place, and which, like the G. G. of fine-bred cattle pedigree, denote something to which the progeny of that seed may be traced. This Mr. Fenn did years and years ago, with a large amount of disappointment in some cases where much good was expected, and a proportionate amount of success mingled with it. It is not merely by fertilising the flowers that a good useful variety is insured, and even what is good is not fairly proved to be so for some years

after, but patience has to be further tried, and the insignificant produce of the fruit so obtained often enough disports itself into a great number of varieties, of which the largest and most promising the first season are not always the best afterwards, but a fresh trial has to be made another year, and that trial has very often to be repeated again and again ere anything that can be relied upon can be had. Thus great perseverance must be exercised, and only those who have followed out this course of action are aware of the many disappointments, and how few the number of really good things there are compared with those that are merely commonplace. Mr. Fenn, however, has been successful in raising some Potatoes of sterling merit, and which are regarded as such by the planting-out public, and I hope the number will be much supplemented by the inspection to which his crops were subjected on August 28th, the day I allude to as that of my meeting the party.

After an excellent luncheon, and discussing various home-made wines for which Mr. Fenn is famous, we adjourned to the garden, and there found a large breadth of ground had been planted with seventy or eighty kinds of Potatoes, in rows about 3 feet apart, with sufficient space between each plant to allow of the due development of the kind. I believe that a larger quantity was grown in a field elsewhere, but there was sufficient here to test the merits of each kind; and one taking the fork, the business of turning-up specimens of the crop commenced, one variety after another being thrown to the top, and their merits or demerits commented upon by those present. Certain kinds came in for a fair meal of praise, and after their history and pedigree had been discussed, marks of commendation in the reporters' notes were placed against them, and other kinds proceeded with. Now and then some little vagaries in the growth of certain kinds attracted attention, involving a dispute whether the specimen in question belonged to the round or kidney section, Mr. Fenn's opinion being often regarded as final in such matters. Nevertheless, there were some anomalies in this respect not easily accounted for, as when grafting had been practised years ago, and, as your readers know, Mr. Fenn was amongst the first, if not the very first, to adopt that mode of altering the character and constitution of a Potato. Other remarks equally instructive and interesting were made, not the least being the difficulty there is in obtaining seed of certain good kinds—only one or two fertile flower-heads in a row perhaps, while a less-deserving kind furnishes the means of propagation more abundantly. These observations, made by our worthy entertainer, with many others of a like kind, were sufficient to make many of us blush who had been content to plant only such varieties of Potatoes as were recommended by general opinion. Here was an instance of a great number of new varieties raised for the public good, and that not by trusting to chance for success, but patience, care, and sound judgment were displayed in the selection of suitable parents; and as the collection was interspersed with specimens of well-known kinds, there was every opportunity for making comparisons, which in some instances were in favour of the established varieties, in others in that of the new ones.

I believe Mr. Fenn's object was to elicit opinions as to the merits of a certain number of the best of his varieties, with a view to their being placed under more extensive cultivation, or, perhaps, in the hands of the public, and every opportunity was afforded of inspecting the crops; moreover, I believe a number of kinds were to be tested by being cooked. At lunch, more than one kind of Potato was presented to us in the condition in which a Potato's merits are best understood, and the general opinion was in favour of a kind whose name I unfortunately omitted to note down. A sparkling wine in which the Royal Muscadine, Espiran, and another outdoor Grape formed the body, was very much admired, as was also another wine in which only two of the kinds named were used. The Vines from the produce of which these wines were made grew to the tops of the highest walls of the house, and partly over the roof and up the chimney-shaft, presenting an amount of greenery which would have been still more remarkable had not the surroundings everywhere abounded in it, for it was only to look over the wall of the garden and the beautiful park of Blenheim lay before us. In the garden itself an old Apple tree was well covered with healthy fruit of that very popular variety the Blenheim Orange. This tree was said to be a graft from the original, but there seemed to be a disposition amongst some of those present to question whether it was the same as the Blenheim Orange of the present day, but it was a healthy fine-looking fruit; and a hint from some self-constituted moni-

ter reminded us that Potatoes and not Apples were the subjects under consideration. Down went the fork and a fresh variety of Potatoes was turned up, which was said to possess all the good bearing qualities of Breesee's Prolific with a much better character at table; next a kidney with the capricious tendency of having some of its produce round; then we came to one somewhat in the way of Sutton's Flourball. It unfortunately happened my duties called me away long before the whole of the varieties had been gone through, and, with a reluctant good-bye, I was obliged to turn my back on Woodstock.—J. ROBSON.

CULTIVATION OF EPIPHYLLUM TRUNCATUM.

THIS was in great favour in my early days, and, except the Camellia, I know no plant which is so beautiful from the middle of December to the middle of January; the variety bicolor is the finer of the two. It blooms at a season when flowers are scarce, and is valuable for cut flowers, but a plant of it 4 feet high and 2 to 3 feet through is worth seeing.

This Epiphyllum used to be well grown at Garscube House near Glasgow, and at Woodhall; and there is a place about Paisley where I have heard it is grown well and in quantities. I used to have two plants of the bicolor variety when gardener to the Earl of Wemyss at Gosford, and one of them was between 2 and 3 feet through, and to see it in full bloom was a great treat.

Pereskia aculeata is sometimes used as a stock for it, also Cactus quadrangularis, but I found Cereus speciosissimus suit it best. A good specimen can be formed in a few years by growing one stem of C. speciosissimus in a healthy state, and once it is in a state for grafting put a row of E. truncatum on each side of it, and the grafts will grow at once. A little moss may be put round for a few days until the grafts unite with the stock. It is quite easily grown, but it requires a little more heat than a common greenhouse. I grew it in a plant stove, but when grafted on C. speciosissimus it might possibly stand in the warmest corner of a greenhouse.

Ordinary soil will suit it, and add some stones or charcoal amongst the soil to keep it porous, or the plant may damp-off some morning. A few pieces of charcoal should be laid round the stock. I found a coating of manure spread over the surface do it much good. The roots grew well in it, and the plant had a fine healthy colour.

I seldom or never see this plant worth looking at, and I hope more attention will be paid to it. It only requires to be seen in perfection to make everyone long to have such a beautiful flower.—J. ADDISON.

THINGS OUT OF SEASON.

IT requires no extraordinary amount of skill to produce good vegetables, fruits, and flowers in their natural season. This is generally known to those for whom they are grown, and the things are valued accordingly. For instance, a Rose in June has to be a good one to command the slightest attention, but a Rose in April or August may be a very inferior flower in a florist's point of view, and yet everybody but the most bigoted florist will admire it. Who will give us a list of August-flowering Roses? Any of them can be made to flower in April. Never mind about perfect outline and fulness of flower; let us have pleasing colour and sweet scent first, the other points afterwards if we can get them. The florists have had it too much their own way: in their eagerness for beauty of form they neglect the principal thing non-exhibitors grow a Rose for—its scent. A Rose ought to go by some other name if it is scentless, and "AMATEUR, Aigburth," has done a good thing by putting a mark against those named in his list which give no pleasure to the olfactory nerves. I wish some one would look after the garden Roses—those possessing the qualities of flowering throughout the summer months, good, vigorous, but even growth, distinct and pleasing colours, and, above all, sweet scent. I rather suspect our exhibitors have their Roses in too close proximity to their manure heaps to enable them to judge correctly about the last point I have mentioned. As for perpetual Roses, I only know one worth calling perpetual, and that I am afraid to name. Besides, it is my duty at present to write about vegetables, and I will begin with

Tomatoes. These are perpetual, or at least may be easily made so. No one with a small heated house need be without them any day in the year. Their culture is extremely simple—much more so, for instance, than winter Cucumbers, and

where these are grown Tomatoes can be grown perfectly well with them so long as they are not shaded. The flavour, I am inclined to think, is equally as good in winter as it is in summer. Orangefield Dwarf is still the best variety for forcing and also for general culture. Hathaway's Excelsior is a very handsome variety of good flavour, but it is not so early nor yet so prolific as Orangefield. I know of no particular merit in the large coarse-growing kinds. Seeds sown, or cuttings struck in summer and grown-on in large pots outside as long as the weather permits, will bear abundantly when placed in heat. Give them heat, light, and moisture, and they will bear as a matter of course. Another batch should be sown in heat early in December, to come into bearing in April; and the third, which will supply the plants for fruiting outside in summer, should be sown in the middle of January.

The Globe Artichoke is another delicacy which is easily produced out of its natural season; not, perhaps, in the depth of winter, but certainly in great abundance till the frost cuts them off. All that is necessary to produce enough and to spare throughout the summer and autumn is to put in a few plants every year about the middle of May; these, if liberally treated, will come into bearing by the time the older plantation is over, and will continue to bear till the weather stops them. Young plants are easily obtainable from the old stools at any time; and although for a week or two after planting they may appear almost dead, yet they will bear as much rough treatment at that time as a Cabbage plant; but when once they begin to grow, if large fleshy heads are wanted they must receive no check. The faster they grow the better they will be. Liquid manure helps them wonderfully.

Lastly, I will mention Lettuces. I suppose nobody need be told how to grow these in winter with the aid of glass; but everybody cannot afford glass, and there are ways by which they can be grown tolerably good without. The small Cabbage Lettuces, of which Tom Thumb is a good type, are the best for this purpose. Seed sown at the end of July, and the plants dibbed-in 7 inches apart in a sheltered position where they can be covered with a shutter in severe weather, will produce nice crisp little hearts through an ordinary winter. Another batch, sown about the 20th August, and planted outside unprotected as soon as they can be handled, will succeed them in April, or even March in a mild spring; after which Bath Cos sown at the same time will follow. The details given can of course be only suggestive, each one must find out the exact time for his own locality. My Lettuces for spring use are always sown between 24th and 27th August; the succession to these is sown in a Potato frame at the end of February. Cabbage Lettuces generally turn-in earlier than Cos, therefore it is a good plan to sow both at the same time.—W. TAYLOR.

LILIUM AURATUM.

IN reply to "H. G. S." in THE JOURNAL OF HORTICULTURE of September 3rd, as to the number of *Lilium auratum* flowers grown on one stem, I beg to inform him that in the conservatory of Alexander Brogden, Esq., M.P., of Lightburne House, Ulverston, the head gardener, Mr. John Melrose, showed me some plants the bulbs of which were purchased from Mr. W. Bull, of Chelsea. On one, grown in a 12-inch pot, there are five stems, one of which is very full of bloom, having no less than forty-six well-expanded flowers upon it. The other four stems average sixteen flowers each, or a total of 110 flowers. In another 12-inch pot there are eight stems, and the total of flowers on these is 128. From tip to tip the blooms measure from 10 to 11 inches.

In the same conservatory I noticed a splendid specimen of the *Vallota purpurea*. The plant was raised from seed by Mr. Melrose. It was shown at the recent Ulverston Horticultural Show, and the Judges awarded it a special ticket of merit. It was to them a new variety, and I should feel obliged if you would kindly say if anything similar to it has come under your notice. You will observe that it differs from the old variety, inasmuch as the new one is white-throated, and the petals are rounded, in place of pointed, at the outer extremity.—BETA.

NOTES FROM AYRESHIRE.—Several *Araucarias* were planted here in 1846-7, then about 1 foot high; the tallest is now 33 feet and perfect in symmetry, feathered to the ground; the others not quite so tall, but all healthy. A *Cryptomeria japonica*, planted out just two years ago, then 4½ feet in height, is now 11½ feet in height; it apparently grows summer and

winter. The honey harvest is excellent. We are about a mile from the sea, and sheltered, in the parish of West Kilbride, Ayrshire.—W. D. A.

GLAZING WITHOUT PUTTY.

IN reply to your correspondent, "C. S.," I annex a section (fig. 76) of the sashbar, which differs slightly, though not materially, from the previous one. From c to d is 1 inch, from a to b is 2 inches, giving a depth of 1 inch to the channel. I see no reason why dust should accumulate in it, but if it should, the first shower would wash it away. The channel would be deep enough to prevent any overflow, but its capacity for carrying off rain could be increased, as shown by the dotted

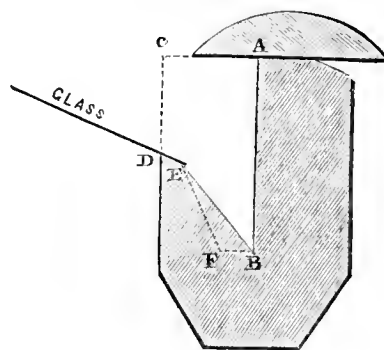


Fig. 76.

lines E, F, B. The glass is kept in position by thin strips of lead or zinc nailed on the side of the sashbar at d, and bent under and over the glass, say two strips to each pane. The first cost of this kind of sashbar will no doubt be a trifle greater than the one now in use, but that will be more than compensated by the saving in time (which in these days of dear labour means money), in fixing or replacing the glass.—S. B.

"S. B.'s" plan (page 190), appears open to the following objections:—If lead clamps are to afford sufficient resistance to the action of wind, if they would at all, as it will lift sheet lead and large slates on a roof, the lead must be of considerable thickness, and then every clamp would act as a lodgment for dirt, and wherever this occurred the water would draw under the edges of the glass and cause drip. If the clamps proved inadequate, the glass being loose on one side and tight on the other, the leverage being great, there would be a tendency to breakage. There being no bedding, as with putty, and as every overlap occasions a vacuum at the sides, independently of inequalities in the glass, there would be nothing to prevent the wet from driving under if the least obstruction. The roof ventilation, too, would be considerably increased. I look upon any channel that could be safely cut out of the sashbar as practically useless or worse, as it would require constant and careful attention to keep it clear. Had putty been more durable there does not appear to be anything yet discovered that so perfectly answers its purpose. However, the subject is well worth ventilation, and we may yet reach the ultima thule.—V.

STRAWBERRIES.

IN reply to "D. F. J. K.," I never weighed Cockscomb, but at a Strawberry feast here some years ago a person took up eight Cockscombs from the dish, and said, "I think these must weigh more than a pound." The largest Cockscomb measured here was 12 inches, measured round the rim. I have grown many 9 and 10 inches, so measured. My man, "Steevie," who is gone to Canada, and is heartily sick of it, measured the Strawberries with the inches marked on the tape, so that there could be no mistake. Ingram's Prince of Wales is an early Strawberry, but there are several others—Cuthill's, for instance—and one or two foreigners. I have never heard of a Strawberry called Lady Carrington. If Vicomtesse Héricart de Thury has its flowers removed with a view to autumnal bearing, the runners must be kept cut off, and the plants well drenched with liquid manure. It is the same as Marquise de la Tour Maubourg, and Duchesse de Trévise. I used to grow it under the last name but one. I hardly think Mr. Taylor of Hardwicke

Grange can have the true sort. His description of Wonderful is exactly what it is not here. It is a very firm Strawberry, as is Oscar, and both are good travellers. By a good culinary Strawberry, I mean it is *firm* when cooked. Oscar, Wonderful, and Cockscumb, are excellent for sinking whole in jellies. Nimrod is not Eleanor, though the latter was sent out to represent the former; just as Hooper's Seedling was sent out to represent Sir Harry. The true Nimrod is more like the Queen or Carolina superba. I sent it to Mr. Rivers, who at once said it was not Eleanor. Mr. May, the famous Queen grower, gave it to me. Eleanor is a noble Strawberry, but very sour. It is the best type of a cone.

It is plain to me that an article is often made to represent one or more articles. For instance, as supplied to me, I can see no difference between Maurice Bernardin, Ferdinand de Lesseps, and Exposition de Brié, though when properly supplied they may be distinct. Mr. George Paul pronounces Maurice Bernardin and F. de Lesseps to be the same. The Black Prince can be early and also late. For late work Galande red Alpine is good. Mine are in bearing now (September 11th). Owing to different circumstances the testimony as regards Roses and Strawberries must needs be somewhat different.

In Mr. Rivers's list of various dessert Strawberries I see "Wonderful (Jeyes), large and good; very prolific."—W. F. RADCLIFFE.

I AM sorry to see that President seems to be passed over by everyone. My own experience of it is most favourable. I have grown it between rows of pyramid Pears and Apples 4 feet apart, without manure, and this year gathered an immense crop of good-sized fruit. Many of the berries were dried up with the heat and drought, otherwise the plants would have been almost exhausted. Mind, I do not consider it first-rate as to flavour, for it is far too acid to be so, but it is a good, useful sort, and can be grown without pampering.

I shall be much obliged if any of your readers will give me the benefit of their experience as to the growing of Dr. Hogg. It occupies the place of honour in my garden, but makes no return for its advantages. Perhaps like Rivers's Eliza, which requires chalk, or British Queen which is partial to clay, he requires some particular soil. The excellence of the fruit makes it worth while to go to some trouble to grow it. I have lately planted a bed of Bradley's Amateur runners, and as the situation is dry hope to succeed with it. Will any of your correspondents who have tried it kindly give their opinion as to the desirability of this sort?

The "impecunious many" read with wonder of bunches of Grapes weighing 19 lbs. and 20 lbs., and feel with the fox that such things are beneath their notice; but the Strawberry is a fruit within the reach of all, and I think a series of letters treating of the best sorts, and the kinds of soil in which they severally thrive, would be interesting and instructive to all.—M.

NOVELTIES IN THE ROYAL GARDENS, KEW.

KNIPHOPIA (*Tritoma*) **MACOWANI** is a new species flowering in the Cape house. It is, perhaps, quite hardy, and will be an acquisition from its dwarf habit, reaching a height of about 16 inches. The leaves and scape are strong, and require no support. It is adapted for pot cultivation; nice plants may be grown in 32-sized pots. The raceme is 4 inches long, and the individual flowers are the same length as those of *K. Uvaria*, but are lighter in colour. (*K. Uvaria* is the *K. aloides* of Mr. Baker's monograph in the "Journal" of the Linnean Society.)

Coccyopselum repens growing in the Stove is a very attractive plant for hanging baskets, chiefly on account of its dark blue berries; they hang for a length of time, and are useful for winter decoration. The stems are trailing in habit, and purple; the entire plant is covered with hairs of the same colour. Though small, the flowers are pretty, being a light and delicate blue. It is very easily cultivated. Light soil is best. Cuttings and seeds grow freely.

Campanula isophyllum var. **alba** is flowering on the Rock work, and is a pretty companion for the species. It was raised from seeds in the Royal Gardens two or three years ago, and has not yet been very widely distributed. It is well adapted for rockwork cultivation, and when doing well flowers profusely. **Linaria triornithophora** is one of the finest of the genus; there is here a variety with flesh-coloured flowers. It is a perennial, but will flower the same year from seeds. **Asteriscus maritimus** is not so well known or as much valued as it should be. It prefers a sunny border, and should be raised

from seed every year; then it makes rapid growth, attains a yard across, with a height of about 1 foot, and during summer is covered with large yellow flowers. **Margyricarpus setosus** is an interesting small-growing undershrub, well adapted for rockwork. It has small pinnate leaves, with linear subulate leaflets, and bears pretty white berries in tolerable profusion. It belongs to the Rosaceae, and is nearly allied to *Acana*. A native of Chili and Peru, growing on arid hills.

Colchicum speciosum, flowering in a border of the Herbaceous ground, is one of the finest of the genus, and is, indeed, "the largest known species." It is also very robust in constitution, and has, perhaps, larger cornea than any other. The opening buds are almost like pink Magdolias. It is a native of the Caucasus.

Among the **Malvaceae**, **Sphaeralcea miniata** forms a neat shrub 2 feet high, and bears flowers of an unusual colour. "The Painted Mallow" of "*Hortus Kewensis*" was introduced into England in 1798 by the Marchioness of Bute, and was extensively grown at one time both as a greenhouse ornament and shrubby plant, being regarded, according to Sweet (writing in 1831), as of great importance to the decoration of shrubberies in the months of October and November, at which time it is profusely clothed with fine vermilion-coloured blossoms. —(Dr. Hooker, "*Bot. Mag.*") It was lost to cultivation for some years, and we are further informed in the "*Botanical Magazine*" that it was re-introduced by Professor Jameson, of Quito. A native of La Plata. It may be grown from either seeds or cuttings.

SPRING-FLOWERING BORDER.

IN answer to "A SUBSCRIBER," Lothian Stocks 3 inches high and recently pricked-out, are too late for spring-flowering—that is, in time for removal for summer bedding plants. Indeed, these Stocks are not adapted for purely spring work; but are, from their lasting character, fine summer-blooming garden flowers. Even strong May or June-sown plants will be a mass of bloom through the June following, and possibly July. "SUBSCRIBER's" plants will not be removeable, after blooming, until the latter month. If he wishes to have a bed of them, let him plant them as soon as his bed is cleared.

In May sow **Victoria** and dwarf **Chrysanthemum Asters** in rich soil in the open garden. When large enough prick-out 5 or 6 inches apart, on 3 inches of manure topped with soil. These, if attended to by watering, will be in fine condition for removal just when the Stocks are on the wane, and will begin to open their blooms at once. A circular bed of Asters, centred with **Victoria**, and edged with dwarfs, either in mixture in concentric circles or radial lines of separate colours, is massive and fine. I planted hundreds of Asters in July, and many in August. They were on the blooming point; not a leaf was lost. They are now splendid, and will be so until frost come. It will thus be seen that for spring the Stocks in question are too late; but here is a substitute. Centre with dwarf stout plants of dark single **Wallflower**, edge with **Iberis**, and margin with **Aubrietia**, as proposed, and there will be a fine spring bed which can be cleared in time for **Geraniums**.

If good plants of **Myosotis**, either *arvensis*, *sylvatica*, *alpestris*, or *disitiflora*, are at hand, or easily procurable (it is too late to sow seed), they make a fine bed, and it may be made finer by planting white **Tulips** (*La Candeur*) a foot apart before putting in the **Forget-me-nots**. That is a very chaste combination. A round bed filled with **Golden Tom Thumb** single **Wallflower** and broadly edged with blue **Nemophila**, or a groundwork of **Nemophila** dotted with the **Wallflower**, is a rich and telling combination. Sow the **Nemophila** at once in drills; thin out the plants, letting each stand singly; and watch and catch the slugs. Not a day must be lost in sowing the **Nemophila**. The first week in September is the best time, but with a mild autumn and open winter they will succeed sown as late as the twentieth day.

Silene pendula, pink, makes a particularly glowing spring bed. It can be edged with the white variety, or with **Golden Feather**. Healthy root-slips of the latter can be found at the base of plants which have done duty in the summer. Plants of **Silenes** should be from seed sown early in August. **Limnantes Douglasii** (seed sown at once), with **Vermilion Brilliant Tulips** dotted-in, form an excellent arrangement. So do **Veronica glauca** and white **Hyacinths**.

In using bulbs and annuals, the plan is to first put in the bulbs thinly, and then, when annuals are large enough and the

weather mild, to plant them all over the bed thickly. Single blue Hepaticas and Snowdrops, Snowdrops and Scillas, red Daisies and Golden Feather, Cliveden Blue Pansies and white Daisies, are all charmingly arranged according to taste. Primroses and Polyanthus are purely spring flowers, and make enjoyable beds; but the laced varieties should not be far distant from the eye. Cheap varieties of *Anemone coronaria*, if planted closely, make beds of surpassing richness.

If bulbs are planted, put them in the moment the beds are cleared, about 3 inches deep, covering with road grit, or if the ground is very wet, with dried sand. The single varieties are the best for massing. Set the best-ripened seed, gather, and sow at once, and in the autumn following thousands of blooming plants are provided. That is the best way to raise in quantity. Crocuses are indispensable for spring gardening, but if used alone must be put in thickly—in fact, bulbs of all kinds are very gay and pleasing, but the effect is spoiled unless they are planted closely; used in conjunction with the other subjects named, a less quantity suffices. Everything named is off the ground in time for summer bedding, and is easily raised or procurable without serious outlay. It is hoped "SUBSCRIBER," and possibly others, may be able to pick out something to aid in making gay their home-surroundings, and out of the few hints and suggestions may select the arrangement which their own taste and circumstances may dictate as the best.—J. WRIGHT.

EARLY AND LATE STRAWBERRIES, AND FOR PRESERVING.

I wish "D. F. J. K." would try *La Constante* for preserving, as, to my knowledge, there is no kind so valuable for that purpose. The fruit is of good size, regular form, rich colour, solid, and as regards flavour unsurpassed, provided it is thoroughly ripe; it will then hang on the plants unaltered for several days, be it whatever weather may occur. The latter quality *Unser Fritz* likewise possesses in the highest degree.

I hope "D. F. J. K." may get *Early Prolific* true to name, as there seems in certain quarters to exist a desire to depreciate that noble variety. *Cockscorn* ought to be large in whatever soil it is cultivated, the first fruit generally of enormous size and of true cockscorn shape, colour bright salmon, with numerous prominent seeds, and pure white flesh.

I quite agree with "D. F. J. K." as regards *Vicomtesse Héricart de Thury*; this is certainly a valuable early kind, the only drawback is that a large proportion of the berries is rather small. "H." is right in calling *Prince of Wales* a late Strawberry; he ought to have added *Cuthill's Prince of Wales*, as there is an early sort of the same name which was raised at Frogmore. The *Late Prince of Wales* is exceedingly acid. Lady Carrington is unknown to me, nor have I ever heard that *Wonderful* was sold under that name, although the latter has had the honour of being sold under five or six different names in England, France, and Germany. Its true name was *Myatt's Prolific*, which was given to it when Mr. Myatt sent it out, but it seems not having then been brought prominently to public notice.

In conclusion, I beg to say to Mr. John Taylor, of Hardwicke Grange, that Mr. Radcliffe certainly ought to receive thanks for recommending *Wonderful*, and if Mr. Taylor is not satisfied with it I must doubt whether he has it genuine. I have grown *Wonderful* more than twenty years in various soils and climates, and never found it to possess a fault besides retaining frequently a greenish tip. It is quite distinct from all other Strawberries, and cannot be better described than done by "D. F. J. K." when he speaks of Lady Carrington.

Wonderful succeeds best in strong soils, as in dry land its enormous crop does not come to perfection when hot dry weather sets in. The greenish tips may be avoided if we would go to the trouble of supporting the fruit by small forked sticks. It was *Wonderful* (Myatt's *Prolific*) Mr. De Jongh raised his grand and famous Strawberry *Souvenir de Kieff* from.—FERDINAND GLOEDE, *Eppendorf, Hamburg*.

DUNDEE HORTICULTURAL SHOW.

The horticulturists of this busy capital of the jute trade effected a first class show on the 3rd, 4th, and 5th inst., and it was attended by seventeen thousand visitors. In the High School grounds in the centre of the town were three large marquees. The chief one, devoted to flowers, was 230 feet in

length by 47 wide; another, occupied with fruit, was 100 feet long by 47 feet wide; and the third, set apart for vegetables, was of equal dimensions. The leading features were the stove and greenhouse plants, and a magnificent collection of plants for table decoration. The local nurserymen, Messrs. Laird & Sinclair and Messrs. John Stewart & Son, took a large number of prizes in all departments. Messrs. J. & R. Thyne, Glasgow, exhibited a large group of rare and valuable plants; Messrs. Robertson & Galloway, Glasgow, appeared to advantage with *Roses* and *Gladioli*; Messrs. Cocker & Sons, Aberdeen, with seedling Pansies; and Mr. John McPherson, Aberdeen, with Dahlias.

Fruits were rich and abundant, the merchant princes excelling in Grapes and Pine Apples. Bailie Menzies, one of the Magistrates, took five prizes in Grapes. Vegetables were remarkable in size and quality. Col. Macdonald, St. Martin's Abbey, Perth, and John Long, Esq., Kinbrae, Newport, Managing Proprietor and Editor of the *Dundee Advertiser*, carried off the first and second prizes for the best basket of vegetables (ten varieties). Balledgarno, a little hamlet in the parish of Gowrie, noted for success at former shows, won no less than twenty-six prizes.

Fern cases, miniature gardens, floral devices, window gardens, table decorations, table, hand, and coat bouquets, were an extensive, interesting, and popular exhibition. Mr. James Ferguson, a working man well known for defeating professionals in flowering *Lilium auratum*, was again first in his class. Alpines, never absent from a Dundee show, were shown in profusion, rare, compact, and healthy. Edward Moir, Esq., a noted amateur in Ferns, took the first prize for the best thiry.

The Society contemplate holding an International Exhibition in 1876.

WESTWARD HO!

It may, perhaps, suggest itself to some of the readers of the *Journal* that "D. Deal," is a very peripatetic being, and that he is continually "on the go." He turns up in all sorts of places—east, west, north, and south; and yet after all it sounds more than it is. The fact is, I learned from a very dear father a lesson in early life—never to let the grass grow under my feet; and being like him endowed with some degree of energy, I am frequently on the move when others are quietly reposing from their labours, and lay out for myself occupations for three or four days which some would take three times as many for, and I never spare myself when I can gain information that can be profitable to myself or others. I remember once, many years ago, in my unmarried days, I was staying with an excellent clergyman, and in the morning (a very wet one) I said to him, "I must be off to —." He remonstrated in vain, and off I started. It was some eight or ten miles, and when I came back in the evening, looking rather moist and damp, there were many sly winks and exclamations, "flouts and gibes;" and when I said the object of my journey had been to see a Rose garden, there was a general exclamation of incredulity. "Oh, yes! a charming Rose I have no doubt you saw this wet day!" for nothing could persuade my friends that anything could have made me take the journey but the charm of some fair face at the end of it; but the plea was a true one nevertheless. No Hero waited for her Leander. It was our liege lady the queen of flowers I went to see in one of her country homes. And so, now, sometimes the duties of my calling lead me away from home, and between whiles I manage to occupy my time by seeing what I can.

And thus it happened, that having to be at Cheltenham in my clerical capacity for Sunday, August 9th, and having undertaken to act as Judge at the Taunton Pease Show on the 13th, I laid myself out to visit Mr. Prince at Oxford, Mr. Cramb at Llangarthol, to stay a day in Bath, and to visit Mr. Kelway at Langport, and concerning each of these visits I have "summat to say." I should have been glad to have also noticed a visit I paid previously to Mr. Richard Smith at Worcester, but this I must postpone, merely for the present saying ditto to what "C. P. P." has said. My first visit was to

PRINCE'S NURSERY AT LONGWORTH.

I had been long desirous of seeing *in situ* the seedling Brier *Roses* which Mr. Prince has so made his own, and from which he has exhibited such splendid blooms. As in everything, there are those who look on this with favour, and others with disfavour. The latter put forward that it is nothing new, and that it is not a superior mode of culture. Now I do not think it is any disparagement to the plan to say it has been practised by the French for years. In all such matters the main issue is, "Does it answer?" and it was in order to see for myself I made this *détour*. My visit was a hurried one, owing to the

awkwardness of the trains and the fact that I had to be in Cheltenham the same evening. When I arrived at Oxford Mr. Prince told me his nursery was ten miles away, but that if I drove there he could then take me on five miles further, so as to meet the Cheltenham train at Wantage Road. The day happily was fine, and so we started off. On this drive, of course, we had much opportunity for talking, and naturally the seedling Briar was our chief subject. When we arrived at the nursery our time was so short that I had not a fair opportunity of doing justice to it; but I saw enough to convince me that the seedling Briar is a decided success. I saw long rows of it: rows of grafted standards on the same stock, rows of Roses on Manetti and on the hedge Briar, and I can safely aver that those on the seedling Briar were far ahead of all the others. Especially was this the case with Teas; these were simply magnificent.

It has been, I know, said that Mr. Prince's must be a fine Rose soil to produce such blooms as he has exhibited, but this is a mistake; it is by no means such—no way to be compared to the rich unctuous loam of the Hertfordshire Rose grounds—but is of a rich and friable character, much the same sort of soil as I have had to deal with in my own garden, so that I do not think that any of the success which has attended Mr. Prince's efforts is to be attributed to the soil. The situation is good, clear and open; in fact, the nursery was three years ago a part of a Wheat field; but I cannot sufficiently express my admiration of the vigour and beauty of the plants. It would be tedious to enumerate the sorts which struck me as fine, for all were so, and we know what Mr. Prince can do as an exhibitor: it will be as well, then, to say why I think the seedling Briar more advantageous than the Manetti.

1. It seems to me to give a much more enduring character to the Rose. Mr. Prince states that it is earlier than the Manetti, but, at any rate, we know that for late blooms the Manetti cannot approach it, and there is a substance in the petals which comes from the source. I have seen, no matter where, a box of blooms which had been cut the day before the show from this stock, exhibited against others from the Manetti more recently cut, and at three o'clock in the afternoon, when all the others were "fading away," those on the seedling Briar were still fresh.

2. It seems to suit some Roses of delicate habit better than the Manetti. I know people say, "Don't keep Roses of delicate habit;" but there are some, such as François Lacharme and Clémence Raoux, that one would be glad to have, but the Manetti seems too strong for them and overpowers them. The seedling Briar imparts a vigour to them without destroying the Rose, and all kinds seem to thrive. Who can easily forget the wondrous beauty of the blooms of Clémence Raoux exhibited by Mr. Prince at the Autumn Show of the Metropolitan Floral Society two years ago at the Crystal Palace?

3. It is not so liable to suckers as the Manetti, and if suckers do appear they are more easily recognised. I saw positively no suckers in Mr. Prince's nursery, and in the plants that I had from him I have never seen the trace of one, while perpetually they are appearing on the Manetti stock. Doubtless an experienced grower will soon detect the sucker, but everyone is not an experienced grower, and I have gone into the gardens of those who really loved Roses, and have seen the Manetti rampantly overpowering everything, while the owner was wondering why the Rose did not bloom.

4. It seems, equally with the Manetti, to be suited for all soils, but care must be taken in planting not to plant deeply. With the Manetti this is desirable, but the seedling Briar seems to require a different treatment.

I may add that while, perhaps, I cannot go quite with Mr. Prince in all he says and thinks about this stock, I feel he is on the right track, and I think there may be truth in what he says:—"I feel I am only a beginner, and that year by year I learn something new respecting the treatment of this stock and its wonderful adaptability to all soils." He is conducting many experiments with it, and I hope we may yet hear more from him on the subject.—D., Deal.

MR. SHAW'S GARDENS, ST. LOUIS, A.U.S.—At the residence of Mr. Shaw, wherein all are welcome, is kept the record of all visitors, many of them famous. Just beyond is the now justly popular Tower Grove Park of seventy acres, a gift from Mr. Shaw to the city, already beautifully planted and kept. On returning from his house we pass the splendid octagonal mausoleum, designed for his final resting place, built of heavy

stone, with eight arches, hung over with trees which cast a deep shade. We trust it will be long ere it open to receive him. Close by is another tombstone, raised as a tribute of respect to a gardener esteemed for his devotion to horticulture, bearing this inscription—

TO THE MEMORY OF
THOMAS NUTTALL,
Born in England, 1786; died September 1st, 1869.
Honour to him, the zealous and successful naturalist, the father of Western American botany, the worthy companion of Bart. n. Michaux, Hooker, Torrey and Gray.
—(American Horticulturist.)

AMERICAN POTATOES.

It may interest some of your readers to know what we have done here with the new American Potatoes introduced last year. 1 lb. of Vermont Beauty produced 120 lbs., some of the tubers weighing 2½ lbs. each. 1 lb. of Early Gem produced 62 lbs. 1 lb. Ampton's Surprise produced 52 lbs.; but in this case half the sets were destroyed by slugs.

The ground in which these Potatoes were grown was not specially prepared, only the ordinary quantity of manure being used.—FRED. WALTON, St. Cutbert's, Albrighton, near Wolverhampton.

FLORAL DECORATIONS IN NEW YORK.

The profuseness with which flowers are used in New York at bridal or funeral occasions is fairly a subject of extraordinary comment. We have personally known flowers to the amount of six thousand dollars' worth brought to a church to decorate it on the occasion of the funeral of one of the most prominent citizens of this city. *Harper's Bazaar* refers to this subject, and speaks of their use on social occasions.

The floral decorations are a charming feature of evening entertainments this winter, and are without expensive, two thousand dollars being sometimes the florist's bill for the elaborate decorations of a single reception. Different devices are arranged for each room, and for almost every part of each room. Corners are decorated with potted plants, and with cut plants heaped in pyramids; Smilax looped with Rose buds festoons the cornices; draperies of Roses and Smilax are arranged between windows, mantels are divided in three beds of flowers, with Violets in the centre, Daphnes and Roses on each end, and a groundwork of Lycopodium and Ferns. In the wide doors between drawing-rooms is a canopy of flowers shaped like a parasol, and supporting nine balls made of different kinds of flowers, Violets, Roses, &c. The walls of main parlours are transformed into beds of flowers, where wire frames support great fields of Heliotrope, Roses, Camellias, Tuberoses, and Carnations, edged with Ferns, Smilax, and the scarlet leaves of the Poinsettia. On other walls are flower cornucopias 3 feet in diameter, filled with the loveliest cut flowers. To make the hall look different from the rooms, Ivy is draped above the doors and staircases, and the landings have baskets of Ferns and hanging Vines. Great banks of flowers are heaped in the dressing-rooms, and picture frames are studded with Daphnes, Violets, and Roses, and draped with Smilax, while choice cut flowers fill antique jars and vases. Instead of the marriage-bell of flowers formerly seen at wedding receptions, the bride and groom now stand under an arbour or bower of Roses arranged before a long mirror. High epergnes of cut flowers are used on refreshment-tables where the guests stand; at dinners, where the company are seated, there are lower epergnes that do not obstruct the view. Troughs of glass in figures, letters, and monograms, and straw baskets representing sheaves of Oats or Wheat, also hold the flowers. At small dinners each gentleman guest finds a boutonniere at his plate, and each lady a larger nosegay, called by the florist a belt bouquet, or else a napkin bouquet. The latter cost from one dollar to two dollars each, and the former fifty cents. The long-stemmed flowers that are now loosely put together for hand bouquets are first pierced through the calyx by a fine wire, which is then twisted around its stem to support it, the florists say. Remonstrate against this torture of so sweet a flower, and you are assured that experiment proves that the pierced Rose will not fade sooner than its lovely companion that is left free beside it. The bouquet is chosen with reference to the flowers that trim the dress.—(American Horticulturist.)

RHODODENDRON BLOOMING A SECOND TIME.—Is it not most unusual for a Rhododendron to be perpetual? yet to my great

surprise a shrub of the white Madame Miolan Carvalho is now in bloom in my churchyard (Dorset coast). This Rhododendron bloomed most freely in May, and as the blooms withered I carefully picked them off, leaving the green shoots which had come up alongside to go on and prosper. This they have done to such an extent that some are in bloom in September. As I never heard or read of this happening before, I thought I would communicate it to "our Journal," and ask whether it is not a most unusual event?—JOHN B. M. CAMM.

ASHMEAD'S KERNEL APPLE.

FRUIT, as in the annexed figure, below medium size, round and flattened, but sometimes considerably elongated. Skin, light greenish yellow, covered with yellowish brown russet, and a tinge of brown next the sun. Eye, small and partially open, placed in a moderately deep basin. Stalk, short, inserted in a round and deep cavity. Flesh, yellowish, firm, crisp, juicy, sugary, rich, and highly aromatic.

A dessert Apple of the very first quality, possessing all the richness of the Nonpareil, but with a more sugary juice. It comes into use in November, but is in greatest perfection from Christmas till May.

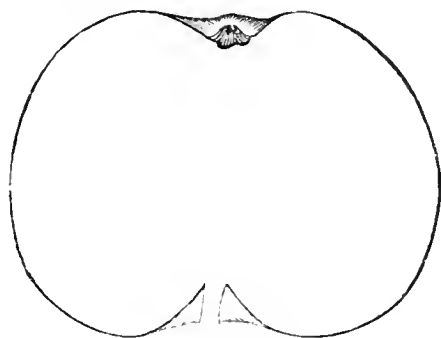


Fig. 77.—Ashmead's Kernel.

The tree is very hardy, an excellent bearer, and will succeed in situations unfavourable to the Nonpareil, to which its leaves and shoots bear such a similarity as to justify Mr. Lindley in believing it to be a seedling from that variety.

This delightful Apple was raised at Gloucester, about the beginning of last century, by Dr. Ashmead, an eminent physician of that city. The original tree existed within the last few years in what had originally been Dr. Ashmead's garden, but was destroyed in consequence of the ground being required for building. It stood on the spot now occupied by Clarence Street.

It is difficult to ascertain the exact period when it was raised; but the late Mr. Hignell, an eminent orchardist at Tewkesbury, in Gloucestershire, informed me that the first time he ever saw the fruit of Ashmead's Kernel was from a tree in the nursery of Mr. Wheeler, of Gloucester, in the year 1796, and that the tree in question had been worked from the original, and was at that time upwards of thirty years old. From this it may be inferred that the original tree had attained some celebrity by the middle of last century. The Ashmead's Kernel has long been a favourite Apple in all the gardens of West Gloucestershire, but it does not seem to have been known in other parts of the country. Like the Ribston Pippin it seems to have remained long in obscurity before its value was generally appreciated; it is not even mentioned in the catalogue of the extensive collection which was cultivated by Miller and Sweet, of Bristol, in 1790. I find it was cultivated in the Brompton Park Nursery in 1780, at which time it was received from Mr. Wheeler, nurseryman, of Gloucester, who was author of "The Botanist's and Gardener's Dictionary," published in 1763, and great-grandfather of the present proprietor of the nursery.

HYACINTHS IN GLASSES.

PROBABLY there is nothing original in my way of growing Hyacinths, yet as I do not know of anyone using it, except on my recommendation, it may be worth sending to you. It is this: The ordinary glasses which are used for growing Hyacinths

in water are filled with rotten dung and leaf mould, and about an inch of soil on the top, in which is planted the bulb. There is no drainage. The advantages I think are, equal vigour with those in pots, but better than in pots, for less evaporation from surface soil, and thus more healthful for dwelling-house, and requiring less attention in watering; the wire supports are available if required, neater in appearance. I have tried the plan for five or six years with good results. Last season the best spikes of flower were got this way as it happened, though those in pots were about equal.—H. T.

NOTES AND GLEANINGS.

It is reported that his Grace the Duke of Northumberland has offered to RECONSTRUCT and PLANT the space in Trafalgar Square, now occupied by the fountains and asphalt pavement. If this is so, we hope it may be planted with lines of Planes, and not converted into a garden, which, however well it might look when first planted, will soon lose its garden beauty. Lines of Planes in such a position would not only beautify and vary the appearance of the place, but would furnish agreeable shade during the hot days of summer—when we have any.

THE Central Horticultural Society of Paris has lost one of its most active and intelligent members in M. MARTIN-CANOT, who was prematurely carried off after a few days' illness. His loss, says a French correspondent, will be keenly felt by numbers of gardeners and other horticulturalists, to whom he was an adviser and friend. He was long gardener to the Princess Stourdzia, Faubourg St. Honoré, but afterwards turned his attention to landscape gardening, and in this capacity carried out a number of important works.

WE have received Dr. Schomburgk's Report of the progress and condition of the ADELAIDE BOTANIC GARDEN during 1873. It is highly satisfactory, but we must confine ourselves to two extracts interesting to our readers:—"It is a historical fact, whenever man settles into a new country he exercises a potent influence over the indigenous vegetation, especially if the intruders are of agricultural and pastoral pursuits. The plough, the axe, the herds, are enemies to vegetation; and as cultivation advances one representative after the other succumbs to the foreign influence. But the plough, the axe, the herds, are not the sole destroyers of the native herbage. With cultivation are introduced noxious weeds of other countries, which, if they have taken to the soil, spread with alarming rapidity, and become possessors of the ground, growing often more luxuriantly in their new abode. As an example I will only mention seven of such noxious intruders in South Australia—viz., the so-called Dandelion (*Cryptostemma calendulacea*, R. Br.), the Cockspur (*Centaurea melitensis*, Lin.), the French Catchfly (*Silene gallica*, Lin.), the Stinkaster (*Anthemis Cotula*, Lin.), the Bathurst Burr (*Xanthium spinosum*, Lin.), and Scotch Thistles (*Cardus Marianus*, Lin., and *Oenopordon acanthium*, Lin.), natives of the Cape and Europe, which already cover large tracks of pasture land, and will extend with rapidity further and further, to the destruction of the native herbage. The Government have legislated for compulsory destruction, and already spent thousands of pounds to check the Scotch Thistles and Bathurst Burr, but as yet only in the populated districts with success. We miss already several kinds of herbage, especially annuals or summer grasses, and the representatives are becoming less every year; but it is also the case with perennial herbage. I will only mention the useful Kangaroo Grass, which in the earlier days of the colony we found everywhere, and which formed a great part of the pasture grass. It has now disappeared even from localities which it formerly almost monopolised, and many others will follow.

THE labelling of the plants has been hitherto a constant source of trouble and expense to this establishment—the paint in the course of one or two years generally wearing off by the weather, and thus requiring a frequent renewal of these labels; but I am now in hopes of having found out a remedy by which the colour will stand. Several labels, which were painted and written in 1871, have withstood the influence of the climate. The labels are of sheet iron, and before painting them I employ first a mordant of the following composition:—One part of chloride of copper, one of nitrate of copper, and one of sal ammoniac are to be dissolved in sixty-four parts of water, to which solution is to be added one part of commercial hydrochloric acid. The iron or zinc labels are to be brushed over with this liquid, which gives them a darkish colour. In the course of twelve to twenty-four hours they become dry, and to

their now dirty grey surface a coat or two of any oil colour will firmly adhere. Our labels are painted black, and when dry the names of the plants are written with white oil colour, and immediately sanded with fine white sand. The sand will dry with the white colour, and become compact. As before mentioned, the first labels prepared with this composition were written in 1871, and show not the slightest effects of the weather."

— A NEW drug from Brazil has appeared in France under the name of JABORANDI. It consists of the leaves and small branches of a shrub growing in the interior of some of the northern provinces of Brazil, and from specimens which have come into the hands of Professor Baillon, it seems that the plant is the *Philocarpus pinnatus*, *Linna.*, belonging to the Rutaceæ. It is stated that this drug has been used with great success in France, and that it is looked upon "as an incomparable diaphoretic and sialogogue." Dr. Gobler expresses the belief that "it will be the first indisputable example of a diaphoretic truly worthy of the name—that is to say, a medicine having the power of provoking directly by an electric action the secretion of perspiration." — (*Medico-Pharmaceutical Abstract and Review.*)

JOTTINGS ON STRAWBERRIES AND STRAWBERRY CULTURE.

In reply to many inquirers who honour me by asking my advice as to the length of time they should keep their beds, and other points of culture, I can confidently assert that the plan of digging-up the plants every year, whatever persons in high places may say, is perfectly unnecessary, and only resorted to by those who do not properly prepare their ground in the first instance, and, moreover, know very little about Strawberry-growing, or the habits and requirements of the plant.

British Queen is acknowledged by many good growers to be as difficult as most kinds to grow successfully; but here, in a light soil with a gravelly subsoil, I find this sort do better the longer in season it is allowed to remain. I am aware that this rule will vary to some extent with soil and situation, as well as with the proper preparation of the soil, but in the main the proposition holds good. My beds of five and six years' standing have done so well and borne such quantities of fine fruit, that I have had them dressed to fruit the sixth and seventh years, and I shall not be surprised if they do not increase in productiveness till they are nine or ten years old, the ground having been trenched at the outset from 2 to 3 feet deep, and plenty of good farmyard manure, chopped turf, and old mortar rubbish having been well incorporated in the process. The ground was then allowed to stand some time "to pitch," as the old-fashioned blue-aprons say, and before planting was firmly trodden. A spade was never afterwards allowed to be used.

The beds are occasionally cleared as early as possible of any runners which have been overlooked, and the straw, tanner's bark, or whatever is used to protect the fruit, is also cleared away directly the plants have done fruiting, so as to expose the soil to the full influence of sun, air, and moisture, whether of rain or dews. The first year or two the beds only require to be slightly but carefully forked over. After the second year, when it may be supposed that the original supply of nutriment is getting exhausted, a little short rotten manure is carefully pointed-in with a fork, and this is done as early in the autumn as possible, a few of the outside leaves only being first removed to make all neat and to get a clearer field for the operation. In this way I manage to grow as fine Strawberries as most gardeners who talk very large in print about the sorts they have grown at their place, and who dictate the only sorts which should be grown, and those which in their opinion are worthless, however disparaging to the efforts of the raiser, and should therefore be condemned; forgetting that where the very best varieties fail in any particular locality, they succeed just as well in others, but frequently fail either from neglect, wilful or otherwise, or from some want not supplied in the cultivation.

As to the distances plant from plant, or whether in beds or lines, all is a matter of taste. The plants, whatever system is adopted, should not be closer together than from 21 inches to 2 feet, and many of my plants after the third year are at least a yard apart, and the plants when in fruit are nearly a yard in diameter, and require two of Paxton's crinolines—that is, four half-circles per plant to support the fruit. Next year I

am thinking of having crinolines made to fit the plants, a foot in diameter for the inner circle, and 2 feet 6 inches for the outer; they will then accommodate plants measuring a yard in diameter.

Runners should not, as a rule, be allowed to root on the fruiting beds. They not only smother the fruiting plants, but seriously impoverish the soil. The best plan is to grow a few plants, according to requirements, in lines for the special purpose, and to remove the blossoms as they appear. Runners will then be plentiful and early. Any barren plant should be at once removed. It would probably bloom the following year, but it is as well not to propagate from non-blooming plants.

I shall be glad to show these old-standing beds next season to anyone who doubts the results. If the season is a fair one for Strawberries in general, I do not doubt it in the least. I shall also be happy at the same time to show my various seedlings, several of them also of four and five years' standing, and notably Early Prolific, Duke of Edinburgh, Enchantress, Sir John Falstaff, Excelsior, Scarlet Pine, Bonny Lass (late seedling), Fair Lady, &c., and to prove beyond doubt that the first two, though I cannot grow them so well as some of my neighbours, are amongst the best early Strawberries grown, and only to be beaten, all points considered, by Early Crimson Pine, now in course of delivery; whilst of the others, together with Alpha, Amy Robsart, &c., as new early sorts, I will leave any visitor who may honour me to form his own judgment.

I am quite confident, both from my own knowledge and from the testimony of others, that Early Prolific is one of, if not the best of the early forcing kinds we at present possess, and the comparison with it of such sorts as Black Prince and Keens' Seedling is simply ridiculous. President is also a most excellent forcer, and makes a good succession; whilst as to Duke of Edinburgh, which I had not proved as a forcer, I was quite astonished to receive early in April last, from a near neighbour, a basket of the handsomest fruit I ever saw, which had been grown in pots under glass to be sure, but with little or no artificial heat. The colour and flavour were excellent, while as to the beauty of the fruit, partaking of the joint character of La Constante and British Queen, no very early Strawberry can excel it. I have no experience of it in stronger heat, therefore will not pretend to say how it behaves, but if it will throw off such large, handsome, fine-flavoured fruit as I saw in April last, with little or no fire heat, I say, despite the opinion of one at least of our would-be advisers, it is not a sort to be hurriedly discarded; and with regard to the general character of Early Prolific, I would rather accept the opinion of such men as De Jonghe of Belgium, and Gloede of Ifanburgh, the former of whom says it is a masterpiece of skill, and the latter has so often sung its praises, even within the last three weeks in "our Journal," that I need scarcely quote his eulogia; whilst at the late "election of Strawberries," under the auspices of the Rev. C. P. Peach, Early Prolific gained the first place as an early Strawberry.

I have not jotted down these remarks merely to extol my own productions, but simply to state as the result of my own experience what I know to be the truth, and also to elicit fair criticism, which appears to be the more necessary when we find persons credited with a general knowledge of gardening who speak of the qualities of the various kinds of fruit only from their own point of view, whether indirectly interested or not it is difficult to say, and who certainly do not make Strawberry-growing amongst other things a speciality. When I hear of Strawberries being cultivated so badly that the beds are destroyed annually, I begin to doubt the ability of such critics to form an accurate judgment of the value of any new kind, especially when such bygone sorts as Black Prince and Keens' Seedling are accounted the two best early sorts we have in cultivation.

Whilst on the subject of Strawberries, I may remark that I have been for some years trying to raise a good large-fruited variegated sort. I thought I had succeeded some few years ago in a seedling I then named Pandora, but which I could not allow my gardener to introduce, because on further trial and observation I found that it failed to set its fruit properly, and this appears to me to be the chief difficulty with variegated sorts. I hope now, however, thanks to Enchantress, that I have overcome that difficulty. I have a seedling from that excellent high-flavoured variety which bore fruit this last season equal in quantity and quality with its parent, whilst the foliage is handsomely variegated in pale green and yellow, with here and there a dash of crimson. I have preserved a nice little stock of runners, which are growing and variegating

their foliage most satisfactorily. It now remains to be seen next year whether the offspring will behave as well as the parent, and if so, the triumph will be a great one in adding a charm to another faculty never dormant in the lover of his garden, and of the many good and beautiful things with which we are surrounded.—W. R., *Morningside, Kidderminster.*

TEA.

Most botanists agree that there is but one species of the Tea tree in China, Japan, and India—*Thea sinensis*, and that the Green Tea, which has been called *Thea viridis*, and the Black Tea, *Thea Bohea*, and Assam Tea, *Thea assamensis*, are only varieties; and that the different kinds of Tea sold for domestic use are all the produce of the same shrub, but differ in flavour or quality according to the age of the leaves when gathered, and their mode of manufacture.

Though the produce of the same variety of the Tea plant, the Black and Green Teas prepared for exportation are mainly the growth of different districts of China, the Black Tea district being situated in the provinces of Fokien and Kiangsi, and the Green in Chekiang and Nganwhi; but the two kinds may be produced in either district, the difference being caused solely by the diverse methods of preparation. For the manufacture of Black Tea the freshly-gathered leaves, freed from extraneous moisture by a short exposure in the open air, are thrown in small quantities at a time into round flat iron pans, and exposed to gentle fire heat for about five minutes, which renders them soft and pliant, and causes them to give off a large quantity of moisture. After this they are emptied out into bamboo-sieves, and whilst still hot repeatedly squeezed and rolled in the hands to give them their twist or curl. They are next shaken-out on large screens and placed in the open air in the shade for two or three days; and finally exposed in iron pans to a slow and steady fire heat until completely dried, care being taken to keep them in constant motion to prevent burning. The chief difference in the manufacture of genuine Green Tea consists in the leaves being so long exposed to the air after rolling that fermentation does not take place, and in not been subjected to such a high temperature in the final drying; but the greater part, if not the whole, of the Green Tea consumed in Europe and America is coloured artificially by the Chinese to suit foreign trade. The Chinese distinguish a great number of varieties of Tea, some of which sell for as much as 50s. per lb.; but these fine kinds will not bear a sea voyage, and are used only by the wealthier classes in China and Russia, to which country they are carried overland.

The first mention in England of Tea as an article of consumption and commerce, is in a letter written to the East India Company by one of their Indian officials, Mr. Wickham, dated the 27th of June, 1615. He spoke of it by the Hindostanee name, *char*, and a small quantity (4713 lbs.) being

imported, it became a fashionable beverage; but its consumption was very limited, for it was never less than 100s. per lb., and sometimes was twice that price. The grandfather of the writer remembered when a boy partaking of it for the first time. He watched what the other guests did, and then did likewise. The cups were very small, no sugar or milk was added, and after the drinking was finished, the leaves taken from the teapot were put upon small biscuits and handed to the guests, who ate them!

In 1660, Pepys has recorded in his "Diary," September 28th, "I did send for a cup of tee (a China drink), of which I had never drank before;" and seven years after he tells—

"Home, and there find my wife making of tea, a drink which Mr. Pelling, the pot-tery, tells her is good for her cold and defluxions."

In the season 1871-72 there were imported into this country 147,000,000 lbs. from China and Japan, and 17,000,000 lbs. from India. The varieties are very numerous. Of *Chinese Green Tea* (Gunpowder sorts), Shanghai, Ping-suey or Pin's-head, Moyune, Imperial Moyune, and Canton. (Hyson sorts), Shanghai, Young Shanghai, Young Canton, and Twankay or Imperial Hyson. *Japanese Green Tea*, Gunpowder and Young Hyson. *Japanese Green Tea*, Gunpowder.

Chinese Black Tea (Congo sorts), Canton, Foo-chow-foo, Hung-muey, Oopack, Kaisou, and Oonam; (Pekoe sorts), Plain Orange, Foo-chow, Scented Orange, Canton Scented Orange, Flowery Pekoe, Oolong, and Souchong. *Assam Black Tea*, Congo, Orange Pekoe, and Souchong. *Japanese Black Tea*, Congo and Imperial.



Fig. 78.—*THEA BOHEA*.

SCABBED POTATOES.

In reference to the inquiries about the scabbing of Potatoes, I have seen it very often, but mostly in a warm sunny season and on light sandy soil, and it occurs to me that it arises from the soil being so hot that it blisters the skin of the Potato when it is in a tender state. At the same time I am told if lime is applied to the soil the Potatoes are sure to be scabbed.

Scabbed Potatoes are generally very dry and good, and they are always drier in a dry warm season than in one the reverse. There is a little blight to be seen in this county, which is famous for Potatoes. The Dunbar Red sort is much prized by the Londoners. The Victoria variety in my garden is quite free of blight, and bearing early clusters of apples, which is rare now, and has been since the first blight in 1845. It is of importance to raise new varieties from seed, and to abandon the old sorts, as they are more liable to blight than those recently raised from seed, of which Victoria is an example with me.—JOHN ADDISON, *Ormiston, Tranent, N.B.*

NOTES ON VILLA AND SUBURBAN GARDENING.

I WILL this week return to the greenhouse and conservatory, and name a few other plants that ought to be grown for their decoration. The list will not be a long one, but I intend to

select a few of these plants most easily grown, believing that these are the things to be appreciated by the amateur rather more than plants of a very tender nature. Beginning first with Ferns, there are the well-known *Adiantum cuneatum*, *formosum*, and *venustum*; the former an excellent Fern to afford fronds for cutting, but requires to be kept in the warmest part of the house, and in a moderately moist position. The other two sorts are somewhat hardier, and will do with greenhouse treatment. Some others that will thrive under the same conditions are *Asplenium bulbiferum*, *flaccidum*, and *lucidum*. The former is an erect-growing sort with vigorous habit, and has a handsome appearance; the next is more graceful in appearance than either, having a drooping habit, which is suitable for suspending in baskets. Then we have *Cyrtium falcatum*, a Fern with fronds of a totally distinct character, and is one to be recommended for its ornamental appearance; and being a Fern that is almost, if not quite, hardy in the south of England, it may be looked upon as one of easy culture. I might also name *Davallia bullata*, a Fern of a creeping nature, dwarf habit, but with handsome fronds; this ought to grow with the *Adiantum*. *Doodia caudata* is another pretty Fern, also *Lomaria gibba*, a miniature Tree Fern, but common enough now in cool greenhouses, and is quite distinct from any of the others named. *Nephrodium molle corymbiferum*, an erect-growing sort with darkish fronds. *Nephrolepis exaltata*, too, must not be omitted for baskets; it is rather loose in habit, but its long, narrow, graceful fronds make up for all that. Then we come to the *Pterises*, of which there are several, such as *serrulata*, *longifolia*, *serrulata cristata*, and *tremula*, all of which, and many more, are greenhouse Ferns of the easiest culture. They also make capital window plants, but they must not be allowed to stay too long; and for placing on the dinner-table or in vases in entrance lobbies they are especially handy. There is also another class of plants which possess the last qualification, but are of dwarf habit, and as they can be made to grow in the smallest vessel, how handy they are for placing here and there on the drawing-room tables, mantelpieces, and other places, where they look nice but do not obstruct. These are *Selaginellas denticulata*, *flexuosa*, *involvens*, *stolonifera*, and *Wildenovi* as about the hardest and easiest grown. They delight in moisture overhead when growing, they then throw out their little fork-like rootlets, which support the fronds in an upright position. If larger specimens are wanted, grow them in pans 5 inches over and peg down the fronds. After a time they throw out fresh ones, which will grow erect; place between these some small lumps of turf, and peg them to it, and as they grow continue adding to it until a large plant is built up. While this is going on give them moisture overhead frequently, which is their principal support, for they make very little root in the pan in which they are potted.

All the above plants enjoy a soil made up of two-thirds peat with plenty of sand added, and one-third loam broken up or sifted fine, and small pieces of charcoal added to the whole, which keeps the soil open. The drainage ought to be perfect, using some charcoal in it, and cover it over with dried moss or any other light dry material to keep the soil from mixing with the drainage. Pot the most of them rather firm, excepting the *Selaginellas*, which must be potted rather light. Let me mention another plant easy to grow—*Isolepis gracilis*, a kind of Grass, with its foliage of a nice green, and falling closely and gracefully over the pot so as in some cases to entirely hide it. This likes a loamy soil with a little peat added, and to be potted firm. This plant will bear any amount of moving about so long as it is well supplied with moisture, and transferred to the warmest part of the house when turning or inclined to grow out of its ordinary green colour. *Tradescantia zebrina* is another very ornamental plant which will grow well in these little town conservatories. It produces a profusion of small handsomely-marked leaves, and has a creeping habit. It is suitable, and looks elegant when suspended in pots or baskets. It grows fast, and when the shoots become long or naked take the points of them off and put them thickly into a small pot filled with fine sandy peaty soil, and they will root quickly. This is the way to keep a pot or basket of fresh-looking plants with the leaves of their true ornamental colour.

Among fine-foliage plants as well as flowers there is the pretty compact-growing *Begonia Weltoniensis*, a greenhouse autumn-blooming sort of the easiest culture. It is an odd-looking root, which forms a crown as the plant increases in size, so that after it has ceased flowering the shoots may be cut off, and young ones soon form, which may be propagated in the ordinary way; or the plant will succeed if, after the shoots break into growth, the soil be shaken from the roots and repotted in rich loam and peat, growing it on in an intermediate temperature until it comes into bloom, when it may be placed in a more airy part of the house. Then there is the old *Gesnera zebrina*, which does so well upon the shelves of the conservatory when it has light and air, the latter in a moderate degree. It may not flower so freely in such a place as in a stove or warm house, but its foliage generally comes to a good colour, and is so ornamental as to make it

worth growing. It flowers in winter, and dies down in spring. The plants are produced from little scaly tubers produced in the soil. After the plant dies the soil should be kept dry till wanted for potting, when the tubers may be turned out and potted about from five to seven in a pot, using a soil of loam and peat in equal proportions, with sand and charcoal added. It is not proper to allow moisture to settle on the leaves after they approach their full size, otherwise it spoils that velvety appearance which makes this plant so attractive. The common Musk, which everyone is acquainted with, is also a very excellent autumn-blooming plant. It is always advisable to fill a dozen pots with the roots in the spring of the year, let them grow and flower, which they will do abundantly and without requiring any special treatment, and the plant will grow in almost any house or window in any town. After the first flowering is over stand the pots aside for a month or more, then cut the tops off close to the pot, water the whole well, and keep it moist; very soon the shoots will appear in abundance, and form a most lovely and attractive plant for almost any purpose. As a window plant it stands almost unrivalled for its ease of culture and abundant bloom.

Those who have got a flower garden may take measures to secure some of the best of the *Geraniums* for use in the conservatory by digging round them, and keeping others near them from interfering with their growth. After a week or two these may be potted carefully and taken to the house, where they ought soon to recover themselves, and in time produce a little bloom. The same may be said of *Lobelias* and some few other things.

Those who grow the *Solanum Capsicastrum*, and everyone should, for it is a capital plant for town gardens and winter decoration of a greenhouse, should be planted-out in May in the open ground, and after the plants start into growth the little white flowers make their appearance in abundance, especially on old plants; these in time produce a green berry, which grows to the size of a small Cherry. After the middle of September, or not later than the first week in October, the plants must be taken up with great care, with as much soil attached to the roots as possible, put them into pots not over-large, water them abundantly, and keep them from the sun until are well established, which does not take more than a fortnight, then transfer them to the greenhouse, and before a week is past the berries will begin to change to red; this they will all do in time, and if the berries are numerous, which they generally are under ordinary conditions, the plants will become the most handsome and useful plants in the house.—THOMAS RECORD.

DOINGS OF THE LAST AND PRESENT WEEKS.

HARDY FRUIT GARDEN.

WE are now making preparation to go on with digging and trenching. In our light soil (which under any circumstances from the quantity of sand and gravel that it contains, it is not very important to have this done early. On heavy soils the reverse is the case; the ground ought to be turned-up to the ameliorating influences of the atmosphere as early as possible. Intending planters of fruit trees should now have the ground prepared for them. It is quite necessary to have it trenched, and if the soil is poor some rotted stable manure may be worked-in during the operation. It may not be out of place to allude to the operation of *trenching*. This must not be done anyhow and at any time. When the ground is too wet for other operations, it is not uncommon to go on with the trenching, and men may be seen at work with the soil a perfect puddle under their feet. Now, this puddle may be thrown into the bottom of the trench out of sight and out of remembrance, but it is certain that the crop for next season will not be improved by it. Another instance may be quoted, and that is ground that has been trodden upon for weeks and months until it is as hard as a footpath, is trenched-up and the hard surface is carelessly thrown in the bottom of the trench without being broken-up as it ought. Before commencing to trench hard ground it is best to break-up the surface with a fork, and let it lie for a week or two, the loosened surface is then thrown into the bottom of the trench, and in that state is well adapted for the roots of all vegetables and trees to work into.

Besides trenching and preparing the ground, when trees have to be purchased it is desirable to look after them in good time, either by giving the order to the nurseryman early, or going to the nursery and selecting them personally. Two-year-old trees are the best, and they should be clean and regularly furnished with branches. For small or medium-sized gardens, pyramid or bush Apples on the Paradise stock, Pears on the Quince, except a few that do not succeed on that stock, and a few Cherries on the *Cerasus Mahaleb*. Cherries budded on this stock bear early and abundantly; the only objection to their culture is, that the fruit is carried off by marauding birds before it is quite coloured. It is easy to throw some netting over the trees before they grow to a large size, but when the trees become

from 10 to 15 feet high, and as much in diameter, this cannot be managed so easily.

Then as to planting. A hole must be dug-out wide enough to allow the roots to be spread out, and some rotted turfy loam should be shaken-in amongst the roots, and trodden-in firmly with the feet. It is not uncommon to plant young trees in rich soil, loam mixed with manure, &c., but this is wrong; all such rich composts ought to be avoided, as tending to produce gross growths, which ultimately produce gumming in Plum and Cherry trees, and canker in the Apple and Pear. The trees will grow freely enough with the turfy loam, and will form a perfect network of fibrous roots into it. Then as to wall trees. If it is important to be early on the alert to select the best trees for the open borders, it is even more important that those intended for walls should be clean, healthy, and well balanced. Trees three years old are the best to purchase for this purpose, and usually they have five or seven young growths which have been properly trained the previous summer. Do not plant too close to the wall, and the ground ought to be allowed to subside before nailing in the tree.

Running the hoe through Strawberry beds and cutting-off the runners once in ten days or a fortnight. We have explained in previous numbers that it is our custom to destroy the Strawberry beds as soon as the fruit has been gathered, and the runners obtained for the following season. Of course, the system of annual renewal could not be followed out if the runners were not planted-out early, and the plants kept quite free from weeds and superfluous runners.

Vines.—During the last week the weather has been very unfavourable to the keeping of Grapes, and a few berries have shown signs of damp. Where there are no plants in the houses to cause damp there is not much difficulty in keeping Grapes at this time of the year, but if the weather prove unfavourable it will be necessary to keep-up the heat from the hot-water pipes, and to open the ventilators freely by day, keeping the house closer at night, and not allowing the pipes to become quite so warm. The earliest houses here are not started before December. Those who begin to force in November should now prune their Vines, and make the usual preparations. Mildew has been very prevalent this year, and it would be as well to impress upon the minds of all who have been annoyed by this insidious parasite during the past season, that now is the time to use preventive measures, and prevention is not only better but easier than destroying it, after the parasitic threads have taken hold of the leaves and berries. As soon as the Vines are pruned, wash all the wood (after having removed the loose bark), with warm soft water in which soft soap has been dissolved to the extent of 3 ozs. to the gallon. The water should be applied with a sponge. Before the rods are quite dry, paint them with the same water thickened with flowers of sulphur. This is sufficient as far as the part of the Vine above ground is concerned. Now to the roots: What is the state of the inside border? Probably it has not been watered since the Grapes began to colour, and is dust-dry. It is quite a mistake to allow the roots to get into this state, as it is so difficult to get the soil sufficiently moist again. After repeated waterings the surface may be moist for a few inches in depth, and as no examination is made further than this, the cultivator fancies that it is all right with his Vines. They may start well and grow away freely at first; but if the border is dry underneath, this healthy growth will not continue, lateral growths will not be produced, or, at least, not freely, consequently the Vines are predisposed to the attacks of red spider and mildew. The condition necessary to conduce healthy root action is first, thorough drainage. It is not always necessary to lay drain-pipes to carry the water to an outfall, but at least a foot or 18 inches of brick-bats or rough stones should be laid underneath the border to allow the water to drain away from its under surface. Second, the border should not be allowed to become thoroughly desiccated, as is too often the case; but even when the Vines are at rest it ought to be moderately moist. Third, when the Vines are started give a thorough good watering, enough to soak quite through to the drainage, so that the entire mass of roots are saturated. We treated a house as recommended above, where the crop of Grapes had been destroyed for twenty years by mildew, and the Vines after being allowed one season to produce fruit-bearing wood, carried a splendid crop of fruit the next season and were free from mildew.

FLOWER GARDEN.

The continued wet and hurricanes of wind have sadly marred the beauty of the flower beds. There is still a good prospect of bloom, however, if the weather would continue fine, as it has been for the last day or two. Picking withered trusses of flowers off, and cutting away growths that have grown out of bounds, and keeping the beds free from weeds. The autumn-flowering Roses are exceedingly brilliant, and if there is one that could be singled-out for its glowing flowers it would be Général Jacquemiot. Charles Lefebvre is also magnificent. The best and also the largest quantity of autumn flowers are produced from those worked on the Manetti stock. Put in cuttings of Tea

Roses; these strike freely if taken off with a heel in lengths of from 3 to 6 inches. They may be inserted from six to twelve cuttings in 5 and 6-inch pots. The soil should be equal parts of loam, leaf mould, and sand. The pots are placed in a cold frame, and watered sparingly. They will throw out roots more freely in August, but very few cuttings will fail to produce plants if put in now.

Getting cuttings of all such bedding plants as Verbenas, Heliotropes, Ageratum, Cuphea, platycentra, &c. What a very fine free-blooming plant is this last, and how seldom it is seen now! It is a perfect mass of flower, and not the least of its recommendations is that it does not require any attention, either training or picking off withered flowers; and one of its greatest recommendations is that the plants can be wintered in any house from which the frost is merely excluded. All such cuttings are put into either boxes or pots, and put into a cold frame; bottom heat has a tendency to cause damp, which is injurious. Cutting the lawn frequently and sweeping up fallen leaves, so that the signs of coming winter may be kept out of sight as long as possible.—J. DOUGLAS.

TO CORRESPONDENTS.

* * It is particularly requested that no communication be addressed *privately* to either of the Editors of this Journal. All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably.

BOOKS (T. P. C.).—"The Cottage Gardeners' Dictionary," you can have it by post from our office if you enclose 7s. 2d. with your address. (David).—We know of no book devoted to forcing all kinds of vegetables. Keane's "In-door Gardening" contains weekly directions for forcing them. You can have it free by post if you enclose twenty postage stamps with your address.

GARDENERS' DIRECTORY (B. M. A.).—It is published at our office.

VARIEGATED IVIES (Knutsford).—Any of the nurserymen near London who advertise in our columns could supply you.

HOES (W. T.).—If you enclose six postage stamps with your address, and order Town's "Plantation and Management of Hops," we will send it post free.

IMPROVING GARDEN SOIL (W. H. B.).—For a soil of your description there is no doubt an application of clay or marl would be the most enduringly beneficial. If you have this at hand it may be laid on the land in spadefuls and at the rate of a hundred cartloads per acre. After the first frost sufficiently severe to freeze the lumps through, it will upon a thaw fall, and when the ground is in working order the material may be dug-in. It ought, therefore, to be applied in early winter. Failing the clay or marl, you may add strong loam a dressing up to 6 inches thick, and mix it well in digging with the soil. A good dressing of cow dung would also be good, as it is more moisture-retaining and cooler than stable manure. For the Roses improve the staple of the soil by adding soil of a more retentive nature, and manure well. On so light a soil they would probably do well on their own roots, and certainly ought to be on the Manetti, as the Briar does not succeed on light soils. Manure liberally, and water freely during growth.

EVERGREENS IN POTS FOR HOUSE DECORATION (H. R. L.).—You are on the right track. Tender subjects are employed when hardy ones would answer equally well, and with less injury to the plant. *Aralia Sieboldii*, fine, fig-like, glossy green leaves, a few plants for select positions; *Aucubas limbatas*, longifolia, japonica (maculata), hinalcica, the second and last green-leaved, the other variegated; *Berberis Darwini*, *B. (Mahonia) aquifolia*; *Buxus arborescens* var. *argenteus*, *Handworthianus*, *aureus*, *pyramidalis*, *B. balearicus*, *B. suffruticosus elegans*; *Cerasus latifolia*, *C. luscitana*, *C. myrtilloides*, *Cotoneaster microphylla*, *C. Simmondsii* (though only semi-evergreen, is fine in berry); *Daphne laureola*, *D. cneorum*, and var. *variegata*; *Desfontainia spinosa*, *Eleagnus japonicus* variegatus and *Eurya latifolia*, though not very hardy are fine variegated subjects; *Eunonymus gracilis roseus* variegatus, *E. japonicus argenteus* variegatus, *E. gracilis aureus marginatus*, *E. radicans* variegatus; *Hollies* in variety, *Laurustinus*, *Ligustrum japonicum*, *Osmanthus ilicifolius argenteus* variegatus, *Skinamia japonica*, *Vinca elegantissima*. Of Coniferous plants:—*Abies Albertiana*, *A. excelsa* var. *Clanbrasiliana*, *elegans*, *inversa*, *pumila*; *Chamaecyparis thurifera*, *Cryptomeria elegans*, *Cupressus Lawsonii* and var. *gracilis* and *stricta*, *Retinosporas ericoides*, *pisifera*, *plumosa*, *obtusata nana aurea*; *Taxus adpressa stricta*, *T. pyramidalis aurea*, *T. elegantissima*; *Thuja japonica borealis*, and vars. *glauca* and *variegata*, *T. dolabrata*; *Thujas Lobbi*, *plicata*, *aurea*, and *elegantissima*. The tree *Ivy* are very fine, both the green and variegated forms.

TAN FOR SEA-KALE FORCING (St. Edmund).—You may take-up the roots any time after Christmas and place them in the spent tan level with the crowns, placing them with the crowns about 8 inches apart, and so that they may be covered with an inverted pot or box to exclude light, adding other covering so as to thoroughly exclude the light, and so secure the thorough blanching of the growths. Or you may place the roots in a box and cover it over so as to exclude light. The tan should be moist, and when the growth is begun you may water with tepid water, one or two waterings being sufficient. To save placing a box or inverted pot over the crowns, you may bury the crowns 8 to 9 inches deep with the tan, the tan being moist or watering at planting no more will be required until the Sea-kale is fit to cut, which it is when the shoots are showing through the surface of the tan.

LILY OF THE VALLEY NOT FLOWERING (Idem).—The Lilies ought to have flowered within three years after planting. Either they are planted very thickly and so are deprived of light and air, and are very dry in summer, or they are in a poor soil and dry in summer. If the first, thin them out, leaving clumps 9 inches across, and the same distance between all around, and fill-in between the clumps with good rich soil, planting those removed in clumps of about 4 inches across, 9 inches apart every way, the soil being enriched with leaf soil or well-rotted manure. They do best in a border shaded from midday sun, and will flower all the better for good supplies of water in dry weather during growth. If they are not crowded top-dress with good rich

compost, as old manure and leaf soil, and water freely in dry weather. A north or east border is better than a southern one.

CUTTING-BACK RHODODENDRONS (*Hermit*).—They may be cut-in to any extent and form desired, and will start again freely, but will be a few years, if cut-in much, before they become good specimens. The best time to cut them back is in April, though you will by cutting so early lose next season's crop of flowers. It is well if in cutting-back you can leave some young growths, as they start more freely from young growth than wood of considerable age. If weak as well as old, it is likely they may not start again freely if cut-back to the old strong wood. We have cut-back some from appearance over fifty years old, which have started freely and are forming good specimens.

SOWING WINTER GREENS IN AUTUMN (*A. T. W.*)—Savoy, Brussels Sprouts, sown in August at the same time as the spring or early summer Cabbage, come in much earlier than those sown in spring, they being pricked-off in autumn and planted-out in March or early April. They will be in use in August onwards, and attain to larger proportions than spring-sown. The sowing then in drills a yard apart and thinning-out appears to us a waste of ground, and one that can ill be spared in most gardens. Spring sowing is mostly adopted, as very few care to have Savoy or Brussels Sprouts when Cabbages, Cauliflowers, and other subjects are plentiful, and from the ground employed for Winter Greens can be had a crop before the winter stuff need be planted—in time for their attaining a size large enough for table by October onwards.

TAKING-UP BEDDING GERANIUMS (*Idem*).—The end of the present or beginning of next month is sufficiently early to remove bedding Geraniums. They may, as a rule, be left until the first frosts in October. The choicer kinds should be removed before frosts occur which cut off Dahlias, the early part of next month being sufficiently early for most and generally all; but the seasons vary somewhat, though, as a rule, it is not until the middle of next month that damaging frosts occur.

WINTERING SEEDLING PANSIES (*H. P.*)—If very choice kinds they may be potted up in good turfy loam with a fourth each of leaf soil and well-rotted manure intermixed, employing 3 or 4 inch pots, according to their size, and placing in a cold frame in a dry sheltered situation, plunged to the rim of the pots in coal ashes. Here they may remain over the winter until spring, having air whenever the weather is mild, shifting into larger pots in February, or so soon after as the weather is favourable, if they are to be flowered in pots; if not, harden-off and plant-out early in April. The lights ought to be drawn down in mild and fair weather, be over the plants when mild but wet, the lights being tilted so as to let the plants have air; in frost only should they be down over the plants, and in severe weather the lights should have a covering of mats in addition to the lights. If of ordinary kinds they may be planted at once in the beds or borders where they are to flower, or if small pricked-out in a sheltered border 3 to 6 inches apart, according to their size, planting them out where they are to flower in March or early April, lifting each with a ball, and watering if the weather be dry.

BULBS IN BED OF DROMPTON STOCKS (*Frank W.*)—It will not answer to plant bulbs between the plants of Stocks, but you may transplant the Stocks so as to have a centre of them with the bulbs arranged as to height around them so as to form the front lines of the bed.

HELICHRYSUM FLOWERS DRYING (*Idem*).—Cut them on a dry day with all the stalk you can before they show the centre, and lay them thinly on paper or on trays, and place out in the full sun daily for a few days, or if wet keep in a dry airy room, keeping from wet, and when the stalks have withered tie in bunches, and suspend in a dry room free from dust. The bunches should not be large, or the flowers may mould, which they will also do if in a place with a moist close atmosphere before they are thoroughly dried.

STORING POTATOES (*T. Bull*).—The best mode of keeping Potatoes is in a dry outhouse in layers, alternating with layers of dry sand, and the heap covered 3 inches deep with sand. In boxes with layers of sand would do.

YELLOW TEA ROSE (*R. H. W.*)—The yellow Tea you refer to, we believe, the old Sulphurea Odorata, the first true Tea introduced from China, called sometimes Crystalline; the bud egg-shaped, long in form, good-shaped petal, very sweet, of the distinctly Tea-scented type. We believe this was introduced into England by Mr. Parkes in 1824, though there were other varieties called Teas known before then—even as early as 1793, but none, we believe, are still in existence except this Sulphurea Odorata; and it is a question whether they were of the true type, so that we may consider the Sulphurea Odorata crossed with others to be the parent of the true Teas. One of the oldest, Devonians, is not true to this type, but has evidently Noisette blood, just as Gloire de Dijon has Bourbon blood. We shall be glad of further notes on Teas.

ROSES FROM CUTTINGS (*K.*)—This is a good time to put in cuttings of Roses. Any of the firm shoots will do, they having three joints, inserting them in a light sandy soil on a north border, cutting transversely below the lowest joint, removing the leaf from it, and inserting to the next in the soil, pressing the soil firm around them. By the April following they will be fit to take up and pot, or may be planted where they are to remain. The cuttings may be 6 to 8 inches long, inserting them half their length in the soil, but moderately strong shoots with three joints are best. Roses on their own roots are not nearly so free in growth as those on the Manetti stock. They will have the advantage for a hedge on their own roots of not troubling you with suckers, those they give being of the right sort.

ILL-FRUITING MOORPARK APRICOT (*Idem*).—You do not say if the tree is vigorous. We presume it is not. Remove the surface soil down to the roots, clear it away and replace with fresh loam, not strong, mixed with a sixth of old mortar rubbish and a fourth of well-rotted cow manure, and put on firmly, not covering the roots deeper than 6 inches, and mulch with short luty dung; water well next year in dry weather. The Peach is a very good one. We have known larger, but a Royal George 9 inches round and weighing 6½ ozs. is good.

ORANGE SEEDLINGS GRAFTING (*Idem*).—The stocks may be grafted in spring when they are beginning to grow, the stocks being had slightly in advance of the scions, they being kept close until the union is effected. We do not know where you may secure scions; probably Mr. Rivers would supply you. It would be better if you had plants of the kinds named—St. Michael's Tangerine, St. Michael's, Maltese Blood Oval, Pernambuco, Botelha, and Selecta.

WINTERING BEDDING GERANIUMS (*Inquirer*).—Your plants being in boxes will be safely wintered in the greenhouse, assigning them a position near the glass, and watering once or twice a week as the state of the weather may require. We could not say how often they will require water, so much depends on the position of the plants and the state of the weather. If on a shelf or stage over the flue, water may be required every other day, or the plants will

part with moisture more freely than were they in a cooler and less dry position; but if away from the flue, water will not be required often than once in dull weather and twice a week in bright weather. The soil should be so moist as to keep the plants from flagging, otherwise it should be dry. The plants should be potted-off in March, placing in a frame, and encouraging growth with a moist and rather close atmosphere, and free waterings at the roots when they are well rooted.

MAGNOLIA GRANDIFLORA OVERGROWING ITS POSITION (*M. E. M.*)—If the tree is perfectly safe from the wind we would let it remain as it is until March, when large portions of it may be cut away, leaving still some to occupy the whole space, or nearly so, which tie up, and the after-summer growth will efface all tokens of the knife. We prefer March to cut all kinds of evergreens, for the reason that the unsightliness caused by cutting is the sooner remedied by the spring growth which is fast approaching. We do not think any harm would ensue by the operation being done in autumn, but the plants would only remain all the longer in an unsightly condition, although in the case of a Magnolia with plenty of foliage all over it this need not be the case; but we have known Magnolias so thinned in autumn, which of course exposes the remaining leaves to more exposure than would have had if others had been there to protect them, that we have seen the trees almost denuded during the winter, that we prefer the March cutting-in.

DESTROYING THISTLES AND COLTSFOOT (*Camjee*).—We only know of one way of keeping the Thistles down, and that is by close and persevering spading in them as they come up, not allowing them to get a foot high or more. In a large extent of grass land we have in hand it has been our practice for many years to allow our shepherd, who is a decent industrious man, 3d per acre for keeping them down all the year, and he certainly has decreased them very much by the spud alone, or, what I find he likes better and is equally the same, a sort of narrow hoe—one not more than 2 inches wide, used in the same way as the spud, but he says quicker. We certainly object to moving Thistles where sheep is kept: a nasty hard stump is left, very hurtful to sheep's feet. Some pastures are very much addicted to Thistles, and the only remedy we know of is the constantly attacking them as they come up; even with that it will take some years perhaps to extirpate them, but they will be reduced. Coltsfoot we have not had so much experience in, as it is seldom they are found in the same place. With us Coltsfoot grows mostly in moister places, and often underneath trees. We confess not to have had much experience with it in grass lands, but believe it may be considerably checked by frequent mowing. Attacking the roots, we fear, will be a difficult job, as we know of nothing that roots deeper. Usually, however, it is a weed more troublesome in tillage than pasture lands, and in the latter there seems a difference of opinion about its effects on cattle. Certainly in some conditions they eat it with avidity, but whether to the hurt or not the small quantity that has come under our notice has not been sufficient to enable us to judge of. We would, however, endeavour all we could to extirpate it, and if sheep eat it without harm it would not be a bad plan to pen them upon it during its growing season. A friend of ours who had a field addicted to growing Ox-eye Daisies (*Chrysanthemum leucanthemum*), which no amount of weeding could extirpate, fed it off one season very closely with sheep, and was very little troubled afterwards. Perhaps the same will follow in your case.

MEALY BUG IN VINERY (*Subscriber*).—You probably keep your vineery too dry and close. Admit more air, and keep the air moist. Have every branch and stem brushed over sedulously with a hard brush, and then with a painter's brush as thoroughly painted over with this mixture:—Soft soap, 2 lbs.; flowers of sulphur, 2 lbs.; tobacco, 1 lb.; and a wineglassful of spirit of turpentine. Mix the sulphur, turpentine, and soap into a paste with warm water; boil the tobacco for an hour in a covered saucepan in some more water, strain it, mix it with the soapy mixture, and then add enough water to make five gallons.

NAMES OF FRUITS (*F. W. P. Dublin*).—Pears—1, Red Doyenné; 2, Marie Louise; 3, Williams' Bon Chrétien. Grapes—Apparently either Black Hamburgh or Black Prince. If the former the leaves will die-off yellow, and if the latter purple. Apples—1, Hollandbury; 4, Nonpareil; 5, Hawthornden; 7, Emperor Alexander; 9, Boston Russet; 10, Ravelston Pippin; 11, Russet Nonpareil; 12, Braddick's Nonpareil. (*J. Green*).—It is one of the ornamental Crabs.

NAMES OF PLANTS (*H. W. W.*).—1, *Centrostemma multiflorum*, *Dnc.*—(*Bot. Mag.*, t. 5173.) 2, *Eranthemum Andersoni*, *Mast.*—(*Bot. Mag.*, t. 5771.) 3, *Saxifraga sarmentosa* var.; 6, *Pteris aquilina*; 7 and 13, *Polypodium vulgare*; 14, *Lactuca Filix-mas*. We do not undertake to name more than six specimens at a time. (*Atlee*).—5, *Corydalis lutea*. Remainder too withered. (*H. P.*)—We do not name more than six specimens at a time even when they are in a fit state, which most of yours are not. 3, *Humea elegans*; 10, *Nierembergia filicalis*; 16, *Ageratum mexicanum*; 1, *Polygala oppositifolia*, or an ally; 15, *Eucalloma* sp.; 9, *Rhynchospermum jasmynoides*. (*J. W.*)—*Populus tremula*, *Aspen*, and *Alchemilla vulgaris*, we believe, but cannot be sure without seeing the inflorescence. (*R. Corbell*).—*Datura stramonium*, *Thorn-apple*. (*Birdie*).—2, *Amaranthus caudatus*, *Love-lies-bleeding*; 7, *Arbustia purpurea*. *Veronica speciosa* is not numbered, and is the only other specimen with its flowers. The others are mere leaves. (*E. S.*)—The yellow flower *Corydalis lutea*, Yellow Fumitory; the blue, *Linaria cymbalaria*, Ivy-leaved Snaydragon.

POULTRY, BEE, AND PIGEON CHRONICLE.

ENDEAVOUR TO AVOID DISEASE.

It is said a gentleman once waited on the celebrated Sir Astley Cooper. When asked his malady, he said he had none. His motive for coming was of a preventive nature, but it could be attained only by consulting a competent medical authority, and he had therefore sought the most eminent. He wished to know when, in this climate, a man might safely leave off flannels, and when take to them again? Sir Astley smiled, and said, "You ask me when you may safely leave off flannel, and when take to it again. You may leave it off on the eve of Midsummer-day, and take to it again on Midsummer morning."

The climate of our country is as trying for fowls as for human beings; and as after the long drought we may look for broken weather, we venture to advise our poultry correspondents, just

as at certain times agricultural papers advise as to ploughing, manuring, &c. When the nights get longer, and when the white frosts succeed each other, it is always time to get the chickens under cover to roost. Warnings are not wanting in the way of incipient colds, of ominous sneaks and short coughs at night when they roost out of doors. Our chickens are reared some distance from the roosting house they occupy in the winter. Many of them still pass the night in the rips in which they lived while chickens. We shift these every night some three or four yards nearer to the house they are to inhabit. Those that roost on rails and in trees we catch after dark and put them to roost in the house. This is not necessary where they are in good farmyard and safe sheltered places, but in the long dark nights it is not well to allow them to occupy exposed and dangerous places. It is often putting temptation in the way of those who are not scrupulous. Arrived at the equinox, and having to do with many that are not adults, it is most essential to feed at the last daylight and the first dawn. The food may be also rather more generous. The sun is hot, but the mornings and evenings are cold, and they feel the change more than they do the cold weather when they are seasoned to it.

THE BIRMINGHAM SUMMER SHOW.

BIRMINGHAM people have a spirit about them, an enterprise, a go-a-head determination, which is, perhaps, unequalled by the people of any town or city in the kingdom. My readers will at once think of several distinct fields in which this spirit has been manifested. Let me point here to one—viz., poultry. At Birmingham the first poultry show was held, and at Birmingham for many many years the best poultry show was held. But we connect that Show with winter. Oh, the friends one has met for years at Bingley Hall at Christmastide or thereabouts! Now most people would be satisfied with a winter success, but Birmingham pluck says we must have a summer show as well. The second summer Show is to be held on the 24th and three following days of this month. The amended schedule of that Show is before me. Truly it is a liberal one. Black Cochins are to have a class in addition to other Cochins. White Cochins are to have a class, and a gold medal for the best Frillback. Looking down the list of prizes one is struck with the liberality of the Committee—£5 and £3 cups, £2 prizes for fowls, £3 cups for Pigeons, and 41 prizes. To show how comprehensive is this schedule I will quote the part headed "Tumblers." There are prizes for Almonds, Balda or Beards, other Short-faces, Long-faced Flying Rose-wing, Red-breast, Mottled, Muff-legged; Long faced Flying Saddle or Badge, or any other variety Muff-legged; Long-faced Flying, Clear-legged any colour. With such a prize list and such spirit the Committee, if they do not achieve success, at any rate they will deserve it; and I sincerely trust they will so have the support of fanciers and exhibitors that they will achieve success. No schedule ever issued by a summer-show committee can at all compare with this from Birmingham. The views of the breeders of almost every known variety of both poultry and Pigeons have been met. Thirty-four cups and special prizes for Pigeons, and the same number for poultry, besides liberal money prizes, must surely cause a show to succeed.—WILTSHIRE RECTOR.

BATH POULTRY, PIGEON, AND CAGED BIRD SHOW.

For some time past huge and many-coloured placards had announced "The First Grand Bath Poultry, Pigeon, and Caged Bird Show," in conjunction with the regular autumn Flower Show in the Sydney Gardens. I paid very little attention to the placard; and knowing Bath would not even have the West of England Show held near it, and that in spite of her population the "fair city" had never done anything in the way of poultry to distinguish herself, I made up my mind to a dead failure—one small tent nearly empty, committee-men angry with each other, "and all throwing blame upon some harmless neighbouring fancier or two, who would make them get up that absurd thing, a poultry show." I pictured the tent empty of visitors, and the depressed attendants having sold exactly one dozen catalogues, bearing in mind how empty always is Bristol Show. Still, though I knew it would be a failure, I felt I must go; so I would go in, peep a minute or two at the birds, and take off expected depression at the Flower Show, which is always good. Mark, I had heard nothing about the entries, I knew none of the managers.

Well, I went to Bath on Wednesday (2nd inst.), the first day of the Show, and found just the opposite to my gloomy expectations. I found a wonderfully good show, numbering about a thousand entries; instead of one tent nearly empty, two crowded with birds, a half-open side tent or stand for other classes of poultry, and a number of picturesque, bazaar-like, half-open alcoves or bowers full of cage birds. But more than all, and beyond all, the Show was thronged with visitors—so much so that it was

difficult to see the birds. Only at Birmingham have I ever seen a show so crowded. Certainly Bath Show was a great success, and the difference between the attendance at Bristol was most striking. I will speak first of the poultry, then of the Pigeons; and lastly make a few suggestions as to avoiding some faults, pardonable in a first show, but easily to be noticed by one who sees a great number of shows, and as easily to be avoided by the Committee in future.

POULTRY.—The adult *Dorkings* were much out of condition and only moderate in quality. The coloured cock and hen class but three pens. The cockerels were not so good as the pullets, which may be pronounced a very good class. In the other Dorking classes the pullets were again the best. First and second to Silver Greys, third to Whites.

Our old friends the *Cochins* made a wonderfully good stand, and proved that what people in common so often say is not true—viz., that they are almost extinct, for upwards of fifty pens appeared. First-prize Buffs were fair only. The White Cochins were the best of all. Cochin pullets were better than cockerels.

However, the *Brahmas* carried all before them as a class; while the first-prize Dark cockerel, No. 36, belonging to Mr. Lingwood, was the most wonderful chicken that I or perhaps any other fancier ever saw. If such the cockerel, what will the cock be? I heard one of the oldest fanciers present only "wishing that his ship had come in," and that he could buy him. Old Brahmas were not so good as the young. The Light Brahmas were even more numerous than the Dark, but the old birds in bad feather. The pullets, as in Dorkings and Cochins, were the best; indeed, the young ladies at Bath were superior to their elders of both sexes.

The *Game* were but few, and hardly up to the mark save in respect of the winning pens, and Mr. Matthews's pullet the best of all.

The *Hamburghs*, on the contrary, were both numerous and good, showing that south and west-country exhibitions no longer lack these beautiful classes to gladden the eyes of visitors. There were even classes for Black Hamburghs, both old and young birds.

The *Spanish*, although Bath is near Bristol, mustered but fifteen pens. Mr. Edward Jones of Bristol, as usual, was a chief winner. It was the belief of some that in regard to the pullets the first and second prizes ought to have been reversed.

To show how eccentrics take the fancy of Englishmen I will notice that *Silkie*, fowls not only without beauty, but which are positively ugly—ugly through sooty skin to black bone, actually numbered twenty pens. Of course this is a mere passing fancy. Mere curiosities should never become numerous.

The *Houdans* were by no means bad—yea, very good; and the *Polish*, what there were, were good, particularly the *Silvers*; Golds not their equals. Among the Any variety class were some very good *Malay* chickens (pullets).

The *Game Bantams* were not so good as we have frequently seen them; but there was a good pair of Silver Sebrights of the revived silver, not the pale cream colour, and there was also a good pen of White Bantams.

The *Selling* class, seldom much to look at, was numerous and various in merit. *Spanish* hens with painted combs must be mentioned, though I would much rather not have seen them, and dislike having to publish their exhibition.

PIGEONS were very numerous—over two hundred pens, and among them some beautiful birds. The first-prize *Carrier* was a good long-feathered bird with a good head both in eye and wattle. Second a *Dun*, but moulting; indeed, the *Carriers* and many other varieties were in bad feather. The hens were superior to the cocks, and one took the cup. The *Pouters*, really a good many; the first-prize cock not a good colour, but honestly shown; second much in moult. Hens, the first Black, second Blue, and a long bird. The *Barbs* were admirable, and the best two pens were—an unusual thing—declared to be of equal merit. In *Tumblers* all the prizes went, and deservedly, to *Almonds*. *Dragoons* are certainly improving, and I greatly hope this fine old variety will have entries as large as that new and much inferior bird the *Show Antwerp*. The *Dragon* is a gentleman of long lineage—the *Show Antwerp* mere "shoddy." The useful *Antwerp* stands on the excellent basis of utility, and is a deserving bird. In the *Antwerp* class the prizes went to the shorter-faced variety. The *Owls* were very excellent, and the first and cup *Africans* perfect gems. *Nuns*.—Red-headed birds first. *Turbits* numerous, so also *Fantails*, and the hen of the first-prize pen graceful in the extreme, the quality imparted to her by her Scotch blood. I must notice the excellent first-prize *Jacobins*, whose closely-fitting hood marked them as superior. *Trumpeters* only two pens! The Any variety class showed some specimens of quaint varieties not often seen.

I must just go back to the poultry to notice the Local classes, not numerous, but containing some excellent birds. The first-prize *Light Brahma* chickens were very good indeed, and belonged to Messrs. Smith of Bath. A good pair of *White Cochin* chickens took second, belonging to R. v. T. L. Sprye of Newton St. Loe, near Bath, while a widely-known and veteran fancier

B. J. Walker. *Any other variety*.—1, J. Walker. 2, T. Rigby, Winsford. 3, H. Eddon. *he*, T. Wakefield.
GEESSE.—*Grey and Mottled*.—1, J. K. Fowler. 2, J. Walker. 3, S. H. Stott, Preston. *he*, J. Walker; S. H. Stott (2). *White*.—1, J. K. Fowler. 2 and 3, J. Walker.
TURKEYS.—1, Rev. N. J. Ridley. 2 and 3, E. Kendrick, jun. *he*, J. Walker.
PIGEONS
CARRIERS.—*Cock*.—1, W. J. Warhurst, Stalybridge.
TUMBLERS.—1, W. A. Hyde. 2, W. J. Warhurst.
HAZES.—1, W. J. Warhurst.
OWLS.—1, Handford & Mycock, Hyde. 2, W. A. Hyde.
POTTERS.—1 and 2, W. J. Warhurst.
FANTAILS.—1 and 2, W. J. Warhurst.
TURBOTS.—1, W. A. Hyde.
DRAGONS.—1, W. Gamon, Chester. 2, W. J. Warhurst.
NUNS.—1, Rev. A. G. Brooke. 2, W. J. Warhurst.
ANTWERPS.—1 and 2, W. Gamon.
MAGPIES.—1, W. J. Warhurst.

ST. NEOTS POULTRY SHOW.

If it had not been for the rain, which fell in torrents for several hours during the early part of the day, this Show would no doubt have been a thorough success, for the competition in almost all the classes was very good, and in some really severe. The Show, which was that of the Huntingdonshire Agricultural Society, was held in two good tents, and we believe the birds were attended to with great care. The entries were far in excess of those of last year. Turner's pens were used, and showed the birds well. Mr. Tegetmeier was the Judge, and we think his awards were generally correct.

Dorkings had four classes, and the cup for this breed was won by a capital pair, now pretty well known. All the Dorking classes were good, and the competition, excepting in the Silver-Grey, was brisk. The first-prize pair of Buff *Cochins* was fortunate in winning also the Cochin cup and the special prize offered by the Duke of Manchester for the best pen of fowls in the Show. They were a very beautiful pair of chickens, good in all points; the pullet of very excellent colour, one of the best we have seen for some time past. Adult Partridge won both the prizes in the Variety Cochin class. In Dark *Brahmas* Mr. Crabtree's fine old birds were first, and a fine pair of chickens second. In Lights Mr. Lingwood was first with a capital pair of chickens. We liked Mrs. Peet's pen very much, and do not know whether they were not better than the second-prize birds. The pullet was particularly good in shape and colour. Mr. Lingwood's Dark cockerel won the Brahma cup. He is a truly magnificent bird. In *Game* the cup was won by a splendid young Duckwing, which bids fair to be one of the best seen of late. *Spanish* and *Hamburghs* were fair classes. In *Bantams* the first-prize Black Reds, winners also of the Bantam cup, Piles, and Silver-laced were very beautiful birds. In the Variety class capital Crèves and Golden Polands won first and second, whilst good Houdans and Leghorns were highly commended, and Golden Polands commended. In the Barndoor class there was nothing specially good.

The Aylesbury and Rouen *Duck* classes were truly wonderful. Several of the birds had to be weighed, and the competition in these classes, and also in the Variety Ducks, and in the *Turkeys* and *Geese*, was of the highest character. Ducks, Geese, and Turkeys had each a cup and a special prize given by the Duke of Manchester, so that that might account for the number of entries in these classes.

In *Pigeons* the competition was not so great. The *Carriers* succeeded in winning the Pigeon cup. They were good Blacks. *Pouters* were—first Blues, second Whites, and both good, though perhaps they might have changed places. The prize *Tumblers* were Almonds, and the *Fantails* both Whites of merit. In the Variety class first were Owls, and the second were Runts.

DORKINGS.—*Coloured*.—1 and Cup, J. Walker, Rochdale. 2, T. C. Burnell, Micheldever. *he*, R. Wood, Clapton, Thrapston. *c*, W. J. Russell, Norwood Junction; S. W. Hallam, Whitwick. *Silver-Grey*.—1, O. E. Cresswell, Farley Wood, Bagshot. *Any variety*.—*Cock*.—1, R. Wood. *he*, F. Parlett, Gallywood, Great Baddow. *c*, E. Winwood, Worcester. *Hens*.—1, R. Wood. *he*, T. C. Burnell; O. E. Cresswell.

COCHIN-CHINA.—*Cinnamon or Buff*.—1 and Cup, W. H. Crabtree, Levenshulme, Manchester. 2, W. H. Crabtree. *c*, H. Yardley, Birmingham. *Any variety*.—1, T. M. Derry, Gadeby. 2, W. H. Crabtree. *he*, R. S. S. Woodgate, Penbury, Tonbridge Wells.

BRAHMAS.—*Dark*.—1 and *he*, W. H. Crabtree. 2, H. Lingwood, Creeping, Needham Market. *c*, H. Wyman, Peterborough; E. Fritchard, Tettenhall, Wolverhampton; J. Watts, King's Heath, Birmingham. *Light*.—1, H. Lingwood. 2, P. Haines, Palgrave, Diss. *he*, Mrs. Peet, Charnbrook; S. W. Hallam, Whitwick. *Any colour*.—*Cock*.—1 and Cup, H. Lingwood. *he*, W. R. Garner, Dyke, Bourne. *c*, Mrs. Fryer, Gamton, Fuddoche, Newmarket.
GAME.—*Black-breasted or other Reds*.—1, E. Winwood. 2, G. H. Fitzherbert, Sevenoaks. *Any other variety*.—1, G. H. Fitzherbert. 2, Deacon, Oundle. *c*, E. Winwood. *Any variety*.—*Cock*.—1 and Cup, H. E. Martin, Southorpe, Fakenham. 2, E. Winwood. *he*, G. Beattley, Rickmansworth.

SPANISH.—1, W. Nottage, Northampton. 2, E. Winwood.
HAMBURGH.—*Gold and silver spangled*.—1, S. W. Hallam. 2, J. Gnan, Coalville, Leicester. *Gold and silver pencilled*.—1, J. Ward, Endon Hall, Ashby-de-la-Zouch. 2, H. Hume, Huntingdon. *he*, A. F. Faulkner, Thrapston.

GAME BANTAMS.—*Black-breasted or other Reds*.—1 and Cup, J. Walker, Frickney, Boston. 2, R. Wiggfield, Worcester. *he*, R. Wood; J. Mayo, Gloucester. *Any other variety*.—1, G. Evans, Worcester. 2, J. Pearce, Ely. *he*, J. Long, London. *he*, J. Mayo.

BANTAMS.—*Any other variety*.—1, M. Leno, Markyate Street, Dunstable. 2, R. H. Ashton, Mottram, Manchester. *he*, Duke of Manchester, Kimbolton Castle.

ANY OTHER VARIETY.—1, W. Cutlack, jun., Littleport, Ely (Crested Geans). 2, J. W. Boothby, Louth (Golden Pheasant). *he*, Holme, Huntingdon (Houdans). W. Dring, Faversham (Houdans); J. K. Fowler, Aylesbury. *c*, J. Goodliff, Huntingdon (Pohsb).

BARNDOR OR CROSSBREED.—1, W. Collett, sen., Abbots Ripton. 2, J. Watts. **SELLING CLASS**.—1, Mrs. Peet, Sharnbrook. 2, W. Dring, Faversham (Houdans). *c*, A. F. Faulkner, Thrapston (White Cochins).
DUCKS.—*Aylesbury*.—1 and Cup, J. K. Fowler, Aylesbury. 2, J. Walker, Rochdale. *he*, T. Sear, Aylesbury; T. Kingsby, Barcroft, Tring; T. Gannell, Milton; J. K. Fowler. *he*, J. Walker; — Deacon, Oundle. *Rouen*.—1, J. Walker. 2, R. Wood. *he*, J. Walker; F. Parlett; R. Wood; T. F. Upsher, Sutton, Ely; W. H. Crabtree; Hon Mrs. Vernon, Kettering; J. K. Fowler. *Any other variety*.—1, J. W. Kellaway. 2, M. Leno. *he*, M. Leno; J. Walker; J. Goodliff; G. H. Mellor; — Wady. *c*, R. Wood.
TURKEYS.—*Cup Special*, 1 and Mrs. A. Mayhew. 2, E. Kendrick, jun. *he*, M. Kew; T. Gannell; Rev. N. J. Ridley. *he*, D. Herbert.
GEESSE.—*Cup and Spec*, J. K. Fowler. 2, J. Walker. *he*, Capt. Anyon. H. Wymao; Duke of Manchester; Thurnham Bros.

PIGEONS.

CARRIERS.—1, Cup, and *he*, — Mison, St. Ives. 2, W. Nottage, Northampton. **POTTERS**.—1, P. R. Spencer, Hereford. 2, A. Storrar, Peterborough. *he*, E. C. Stretch, Ormskirk.

TUMBLERS.—1, A. A. Vander Meersch, Tooting, London. 2, H. Yardley. **FANTAILS**.—1, — Loversidge, Newark. 2, H. Yardley. **ANTWERPS**.—1, H. Yardley. 2, Mrs. H. Cox, Smethwick, Birmingham; A. R. Barnell, Cambridge.

ANY OTHER DISTINCT BREED.—1, L. Allen, London (African Owls). 2, J. S. Price, Finchley (Blue Runt). *he*, A. A. Vander Meersch. *c*, H. Yardley; E. Hills, Chatters (Kunt); J. S. Price (Florentines); J. W. P. James, Hereford.

JUDGE.—Mr. Tegetmeier, London.

THE POULTRY-KEEPER.—No. 19. COCHIN-CHINA OR SHANGHAI.

BUFF COCK.—GENERAL CHARACTERISTICS.

Body (see fig. 79) massive and compact, short, cubic, short-legged; weight and size considerable; head of ordinary dimen-

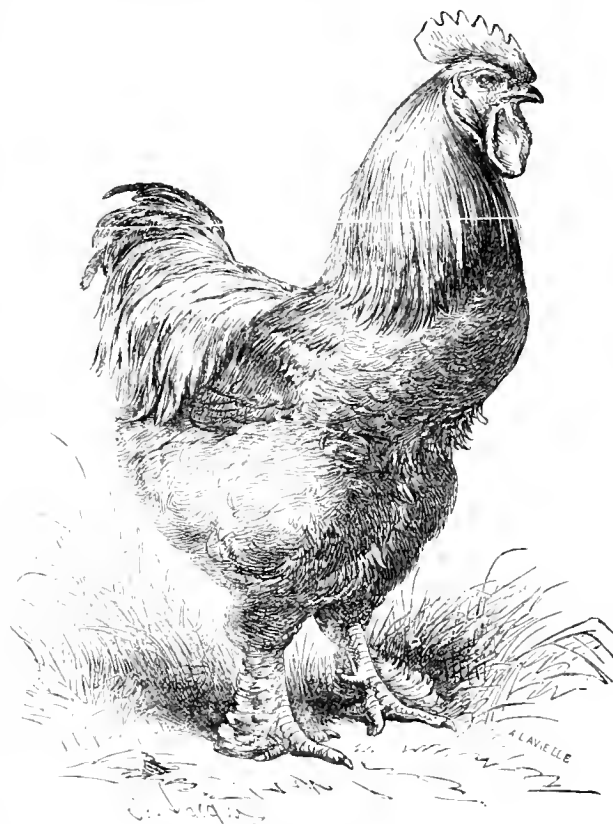


Fig. 79.—Cochin-China Cock.

sions; comb single, straight, and toothed; neck rather slender; shoulders projecting; wings short and raised; back flat and horizontal; breastbone projecting; thighs and legs very strong; feet short and strong; flesh of the breast not in proportion to the fowl's size; plumage buff, abundant, especially on the thighs and abdomen; feathers of the tail very short; the shank of leg short and feathered; flesh of a well-fed chicken of six or eight months very good, poor when full-grown, more abundant, but not so good on the thighs and legs as on the wings or breast; fattens fairly well, but not selected for cooking; bones heavy.

Weight.—From 8½ to 11 lbs.

Stature.—From the upper part of the head to under the feet 23½ to 27½ inches.

Body.—Circumference taken in the middle under the wings close to the thigh joints, 17½ inches.

Length of Body.—From the beginning of the neck to the rump 11 inches.

Breadth of Shoulder, 8½ inches.

The body of the Cochins-China is as if composed of cubic parts. The shoulders are extremely projecting and angular, forming with the back and wings, which are raised to the level of the back, a large, flat, horizontal surface. The breast is high and large. The feathers of the sides much flattened, and joining in two large layers, showing fully the prominence of the breast. The wings are short and nearly hidden by the long feathers, which, however, do not come down much further. The upper part of the cock is covered with short and flowing feathers, which do not conceal the form of the limbs they cover. This upper part presents a great contrast to the thighs, which are enveloped with long light down, spread out and forming with the end of the rump an excessive mass of feathers, but which constitute the most striking characteristics of this variety. The shanks are slightly hidden under the thigh feathers, and you can hardly see where they join to the foot.

Head.—Length, 3½ inches.

Cheeks.—Bare and feathered at the back of the auditory organ.

Comb.—Single, short, straight, and toothed with six or seven large teeth; very thick, particularly at the base, which nearly covers the space between the eyes; not very long behind, and extending in front of the nostrils.

Wattles.—Medium length and rounded.

Ears.—Short, 1½ inch.

Tufts.—Very thick, and formed of yellow feathers like hair.

Nostrils.—Ordinary, longitudinal.

Beak.—Strong, rather straight, and of a good fresh yellow.

Eye.—Mild, and covered by a rather thick eyelid; pupil red; iris black.

Shank of Leg.—Length, 4 inches at the most; circumference, 2½ inches to 3½ inches. It should be very thick and very short, which constitutes one of the principal characteristics of the variety.

Toes.—Very strong; those in the middle longer, and the outside toe shorter, than that of any indigenous variety. The middle toe is nearly 4 inches long; the back toe is of ordinary size. The claws are strong, flattened, and long. Three rows of very soft feathers, but often reddish, are on the outside of the shank and of the little toe, and sometimes of the middle toe. They should be as long at the bottom as at the top of the shank and over the toes.

Colour of the Shank.—Citron yellow, pure in front, and behind of a more or less deep red, dotted with bright red. The toes are yellow.

Carriage.—Heavy, quiet, and awkward.

Crow.—Loud and penetrating.

Plumage.—The whole plumage should be a bright clear buff. The hackle on the shoulders and the lance-shaped feathers of a slightly golden hue occur in the purest breeds. The large and small sickles, which are extremely short, 4 to about 6 inches, are generally of a dark iridescent violet. The eyebrows at the base of the comb are garished with fine feathers, thin and bristling, more like hair than feathers. The hackle is loose and short. The feathers of the wings are flattened, showing the angular shape of the limbs, and consequently the expansion of the feathers of the thighs and abdomen, which are not so abundant in any other variety. The Buff should not have the least trace of white in the plumage, and black, or rather violet, should only appear on the tail. The Buff cocks have often feathers tipped with black beneath, especially between the shoulders under the hackle; those which are least thus marked are preferable.

RICHMONDSHIRE POULTRY SHOW.

The sixth annual Show of the Richmondshire Agricultural Society was held on the 10th inst. in the park of Sir Henry B. Pierce, Bart., of Bedale Hall. A better and more beautiful site could not have been fixed upon. The weather was not all that could have been wished for, as the early part of the day was wet, and during the whole of the day the wind was very strong, which was a serious drawback to the comfort of the poultry.

The special prize, the gift of Lady Bolton, was won by Lady Adelaide Beresford Pierce with a grand pen of Dorkings; the pullet decidedly the best out this season, and, if well matched, would be very likely to figure at Birmingham or any other of our large shows. The *Game* class came first, all shown together, the two winning pens both very good Brown Reds; but with the exception of a pen of Brown Red chickens, all the rest were only of little merit. The *Dorkings* was a good class, particularly the prize pens. The *Brahmas* were a large class. The first a capital pen of Dark chickens, well feathered, and a good colour; the second old birds, very good, but showing signs of moult. The class numbered seventeen pens, the largest class in the Show. The *Cochin* chickens were good, but only a small entry. There were only seven pens of *Hamburghs* shown, all the varieties in one class. First went to good Gold-spangles, second Gold-pencilled. The *Spanish* were not up to the mark in

quality. In Any other variety first went to Hondans, second to Silver Polands, Malays and Crêves highly commended. In *Bantams* eleven pens were shown, all breeds together. First went to Silver-laced, a good colour, but not clear in the lacing; second Black Red Game, and two pens highly commended. — In *Rouen Ducks* there were eight pens, the winners very good-coloured birds, and heavy weights; two pens were highly commended. The *Aylesburys* were fair average size and good in bills. In the Variety class first was Carolinas, second good White Call, and East India highly commended.

GAME.—1, W. Bearpark, Ainderby Stickle. 2, G. Carter, Bedale.

DORKINGS.—1 and Special Prize, Laay A. B. Pierce, Bedale. 2, J. White, Warlaby, Northalerton.

BRAHMAS.—1 and 2, Lady A. B. Pierce. *hc.* E. O. Poulett, Wensley Rectory (3); T. P. Carver, Laogthorpe, Boroughbridge; Hon. W. O. Powlett, Leyburn.

COCHINS.—1, H. Storey, Nottingham. 2, Lady Bolton, Leyburn. *hc.* R. Bell, Caldwell, Darlington.

HAMBURGHS.—1, T. P. Carver. 2, Sherwin & Wells, Ripon.

SPANISH.—Black.—1, G. Pounder, Kirbymoorside. 2, H. Dale, Northalerton.

ANY OTHER VARIETY.—1, T. P. Carver. 2, W. Bearpark. *hc.* E. J. Jaques, Richmond; R. Bell, Caldwell, Darlington.

BANTAMS.—1, T. P. Carver. 2, Miss E. M. Ellerby, Easingwold. *hc.* Lady A. B. Pierce. 3, T. P. Carver.

DUCKS.—*Rouen.*—1, T. P. Carver. 2, G. Pounder. *hc.* J. White, Warlaby, Northalerton; 1, Ineson, Bedale. *Aylesbury.*—1, T. P. Carver. 2, J. Smith.

Any variety.—1 and *hc.* T. P. Carver. 2, Col. Cathcart, Spananthorpe, Bedale.

GEES.—1, Messrs. Dovenor, Bedale. 2, G. Pounder.

TURKEYS.—1, T. J. Carver. 2, J. Graves, Fivby, Bedale.

EXTRA CLASS.—*hc.* E. J. Jaques (Crève-Cœur).

Mr. James Dixon, North Park, Bradford, was the Judge.

WOLSHINGHAM POULTRY SHOW.

This Show was held on Tuesday the 8th inst., in a field a little out of the village. Considerable spirit and interest were displayed by the Secretary and several members of the Committee, and there is little doubt but with proper direction this will become an excellent Show. In this case the poultry were a section of the whole of the annual Agricultural Show, and a very good marquee was considerably provided for the birds; the pens being on Turner's principle, but the property of the Frosterley Society, and were well arranged round the tent. The Show was divided into old birds and chickens, but there was not a class for either *Cochins* or *Brahmas*, which we consider a marked mistake. *Geese* were first on the list; the first prize pen, which were *White Embdens*, were really good. In *Ducks*, *Aylesbury* were first; and *Widgeon* second; *Rouens* being *nc.* *Turkeys* were a very good lot; but *Dorkings*, except the winners, poor; and *Spanish* but moderate. The entries were not numerous in *Hamburghs*, and the quality only low. In *Game* the whole were worthless, except the first-prize *Duckwings*, the cock in which pen was very rich in colour, and almost through the moult. Of *Polands*, good *Golden* were first; and *White-crested* second. In *Bantams* the first were *Black Reds*; and second *Blacks* in deep moult. In the Variety class a very correct pair of *Hondans* and *White Cochins* second. The class of *Guinea Fowls* was very good. In *chickens* the *Dorkings* were well-grown; but the *Spanish* wretched; while the two classes of *Hamburghs* were good. In *Golden*, first were *Spangles*, and second *Pencils*; and in *Silvers* both were *Spangles*. In *Game* the first were a grand-coloured pair of *Black-breasted Reds*, full of style and quality; and the second good *Duckwings*. *Polands* poor; but *Bantams* good, the winners *Black Reds*. *Ducklings* were a capital class; and the winners in young *Turkeys* very large and heavy in bone. In the class for three chickens of any breed, the first were a very good pen of *Crève-Cœur*; and second *Dorkings*.

One class was provided for *PIGEONS*—viz., pens of three pairs of different varieties, and some good sets were shown.

GEES.—1, J. Vickers, Frosterley. 2 and *hc.* W. Love, Redgate.

DUCKS.—1, W. Canney, Bishop Auckland. 2, Rev. J. G. Milner, Hamsterley. *hc.* J. T. Proud, Banchester.

TURKEYS.—1, J. T. Proud. 2, Mrs. Sanderson.

DORKINGS.—1, C. Widdas. 2, J. T. Proud. *hc.* Currah, Woodcroft.

SPANISH.—1, W. Jophing, Frosterley. 2, J. Pickard, Wolsingham. 3, H. Liddle, Wolsingham. *hc.* T. Fintoff, Newby, Stockton-on-Tees.

HAMBURGHS.—*Golden-spangled.*—1, R. Keenleyside, Aycliffe. 2, J. Forster, Hedley Hope. *Silver-spangled or Pencilled.*—1, T. Grey, Greenhead, Stanhope. 2, W. Canney, Bishop Auckland. *Silver-pencilled.*—1, M. Ridley, Peakfield. 2, J. Jackson, Hedley Hope.

GAME.—1, Joseph Gibson, Stanhope. 2, John Gibson.

POLANDS.—1 and 2, J. T. Proud.

BANTAMS.—1, A. M. Balmer, Bishop Auckland. 2, W. Canney. *hc.* J. Hopper. *c.* W. Grey, Tow Law.

ANY OTHER BREED.—2, A. Widdas, Witton-le-Wear.

GUINEA FOWLS.—1, W. H. Young, Driffield. 2, J. Gibson, Stanhope. *hc.* Mrs. Sanderson.

CHICKENS.

DORKINGS.—1 and 2, C. Widdas. *hc.* J. Chentham, jnr., Wolsingham. *c.* W. Love, Redgate.

SPANISH.—1, A. M. Balmer. 2, W. Jophing. *hc.* Ridley, Frosterley.

HAMBURGHS.—*Golden-spangled or Pencilled.*—1, R. Keenleyside. 2, W. Jophing. *Silver-spangled or Pencilled.*—1, W. Jophing. 2, J. Forster. *hc.* J. Forster. *c.* Finlay.

GAME.—2, J. Waller, Stanhope. *hc.* J. Waller; W. Younghusband, Darlington.

POLANDS.—1 and 2, W. D. Maddison, Sunnyside.

BANTAMS.—1, W. Canney. 2, W. Grey. *hc.* A. M. Balmer.

ANY BREED.—1, C. H. Shaw, Wolsingham. 2, S. & W. Coulson, Redgate. *hc.* C. Widdas. 2, A. Pickard.

GOULINGS.—1, J. Bewley. 2, H. Forrest, Durham. *hc.* W. Canney; J. Bewley. *DORKINGS.*—1, W. Simpson. 2, W. Canney. *hc.* Mrs. Lonsdale, Wolsingham; J. T. Proud.

TURKEYS.—1 and 2, J. T. Proud. *hc.* Mrs. J. Vart.

PIGEONS.—1, G. Trueman, Bishop Auckland. 2, S. & W. Conlon, *hc*, J. Robinson, *unsmide*; J. Stephenson, Wolsingham; J. Young, Bishop Auckland. c, J. Robinson.

The Judge was Mr. E. Hutton.

TAMWORTH POULTRY SHOW.

FORTUNATELY for the owners of a very valuable collection of poultry, the Managers of the Tamworth Poultry Show were not only persons of unquestionable experience in such matters, but were also anxious to bring to bear every appliance likely to promote the comfort and safety of the exhibition stock entrusted to them. Had it not been for these careful arrangements, there cannot be much doubt that a very large proportion of the fowls shown would have been irreparably injured as show stock, and equally so as brood stock, by the terrific downpour of rain which prevailed throughout the greater portion of the day the Show was open for public inspection. With the precaution of an excellent tent, the show pens of Messrs. Turner of Sheffield, and the most diligent attention to the birds as to feeding, &c., the Show caused a feeling of comfort, contrasting strongly with the complete saturation of everything that was to be seen by visitors on all sides before their obtaining shelter. We trust other committees will follow the plans just named, and thus tend to increase the confidence of exhibitors as to the general treatment of poultry, which in every case must have been raised with considerable trouble, or purchased at prices that should induce committees to afford them during their stay all the care and attention in their power. In the general chill of such a damp atmosphere as prevailed, of course poultry could not be expected to look to the same advantage as under more congenial circumstances; besides, it was a chicken show throughout, and a goodly number of these youngsters were so young as to be in deep moult, and consequently were less disposed to look cheerful under trying circumstances.

Game chickens were good, and this remark applies to Black Reds, Brown Reds, Red Pileas, and Duckwings. Only two pens of *Spanish* fowls were shown, but both were very good. *Dorkings* were remarkably fine, and the *Cochins* were of high merit also, more particularly the Partridge-feathered and White ones. Some trimmed hocks were discovered in otherwise good birds, and passed by without any advantage being gained as to prize-taking by this attempted injustice to other exhibitors. *Brahmas* were of very good quality throughout large classes; and though the *Hamburgh* classes were not extensive, nearly every pen was such as is not commonly to be met with. *Houdans* and *Crève-Cœurs* were both superior classes, and the matching as to feather of the former was far superior in the majority of pens to what is usual, as of late not a few pullets have been exhibited all but entirely black, giving at first sight a strong impression to the minds of visitors of a large but inferior Black Poland, scarcely carrying a dozen white feathers on the whole bird. Both *Aylesbury* and *Rouen Ducks* were exceedingly fine, the latter proving extraordinarily true in both ground colour and markings. In the Variety Duck class there was indeed a "variety," and composed too of the very best of specimens, Vidua Whistling Ducks and Chiliana taking the lead, very closely pressed by East Indian Ducks, some of the best White Call Ducks exhibited for a long time past, and the other variety of Whistling Ducks. Gold-laced Bantams and Black Hamburgs took the prizes in the Extra class.

GAME.—Black-breasted and other Reds.—Chickens—1, G. Bagnall, Draycot, Stoke-on-Trent. 2, W. T. Eversard, Ashby de la Zouch. *hc*, T. P. Lyon, Laverpool. Any other variety.—Chickens—1, J. Mason, St. John's, Worcester. 2, Duke of Sutherland, Stoke-on-Trent.

SPANISH.—Chickens—1, E. Winwood, Worcester. 2, H. Wilkinson, Earby, Skipton.

DORKINGS.—Coloured except Silver-Gray.—Chickens—1 and 2, Mrs. F. S. Arkwright, Sutton Semdale, Chesterfield. *hc*, Rev. E. Kartrum, Ferhamstead; Mrs. M. Murray, Thunston, Derby. Silver-Gray or White.—Chickens—1, O. E. Cresswell, Early Wood, Bagshot. 2, Miss Williams, Henlys, Bournemouth. *hc*, Hon. Mrs. K. S. Colville, Lutington, Lutton-on-Trent.

C. CHINESE.—Cinnamon or Buff.—Chickens—1, C. Sidgwick, Keighley. 2, J. Watts, King's Heath, Birmingham. Brown, Partridge-feathered.—Chickens—1, R. S. Woodgate, Pembury, Tunbridge Wells. 2, C. Sidgwick. *hc*, T. Sheppard, Humberstone (2). c, E. Kendrick, jun., Lichfield.

BRAMA POOTHA.—Duck.—Chickens—1, B. Kendrick, jun., 2, Horace Lingwood, Cretingham, Needham Market. *hc*, W. J. Jervis, Finner; T. F. Ansdell, Cowley Mount, St. Helens; J. Watts. Light.—Chickens—1, H. Chawner, jun., Hounslow, Uxbridge. 2, T. A. Dean, Marden. *hc*, J. T. Ducks, Humberstone; F. Holbrook, Highfields, Derby.

HAMBURG.—Golden-pencilled.—Chickens—1 and 2, Duke of Sutherland, *hc*, A. F. Faulkner, Thrapstone. Silver-pencilled.—Chickens—1 and 2, Duke of Sutherland. *hc*, J. Long, Bramley; A. F. Faulkner.

HAMBURG.—Gold-laced.—Chickens—1 and 2, Duke of Sutherland. *hc*, T. May, Wolverhampton. Silver-pencilled.—Chickens—1 and 2, Duke of Sutherland. *hc*, G. L. W. Whately, Tamworth.

HORNBILLS.—Chickens—1, G. W. Hubbard, Goulley, Hyde, Manchester. 2, R. B. Wood, Uxbridge. *hc*, W. Daring Faversham. c, Mayon, Fazeley, Tamworth.

CREVE-CŒUR.—1 and 2, R. B. Wood. c, W. Daring.

TRUMPETS.—1, E. Kendrick, jun., Lichfield. 2, F. E. Richardson, Bramshall, Uxbridge.

GESE.—1, Hon. Mrs. K. S. Colville. 2, W. H. Crewe, Etwell, Derby. *hc*, Duke of Sutherland.

DUCKS.—Hute Aylesbury.—1, T. Sear, Aylesbury. 2, W. H. Crewe. *hc*, Rev. G. R. Early, Bladely, Newcastle. Duke of Sutherland. *hc*, Duke of Sutherland. 2, R. Kendrick, jun. *hc*, G. W. Chell, Stone. Any other distinct variety.—1 and 2, M. I. Cho, Marygate Street, Dunstable (Vidua Whistlers and Chinese Pintails). *hc*, Mrs. F. S. Arkwright (Whistlers); E. Kendrick, jun. (East Indian); Duke of Sutherland (White Call); H. Chawner, jun. (Black Cayuga).

EXTRA CLASS.—Chickens—1, Duke of Sutherland (Black Hamburgs). 2, M. Leno (Gold Laced Bantams).

Mr. Edward Hewitt, of Eden Cottage, Sparkbrook, near Birmingham, awarded the prizes.

NEWPORT (SALOP) POULTRY EXHIBITION.

FOR many years past the North Shropshire Agricultural Society has combined a show of poultry with its annual exhibits, and the arrangements having been uniformly good, few shows have progressed with greater regularity than the one in question. The weather was fortunately most propitious, and the attendance of visitors was larger than on any prior occasion. The appearance of the tent on entering was prepossessing, and the care taken of the poultry could not have been surpassed. A two-guinea silver cup, given for the best *Game* cock of any age or colour, brought out a very unsatisfactory competition; the adult birds being in the worst of feather from deep moult, and the chickens were quite immature. A really good Brown Red shown by his Grace the Duke of Sutherland was the winner, but sent in a state of plumage anything but fit for exhibition. In a class for pairs of Black or Brown Red *Game* chickens, his Grace again headed the prize list with a grand cockerel, exceeding fine in colour, and sent in the most perfect plumage, Mr. T. Haseall of Market Drayton taking second prize with a very fine pair of Brown Reds. Red Pileas secured both the prizes for Any other variety of *Game*. The Grey *Dorkings* were fine birds. In a general *Brahma* class a pen of Light-feathered ones were first; and Dark ones took the second prize. *Hamburghs* were most exceedingly good classes, and here the Duke of Sutherland was successful with specimens of extraordinary quality, and of every variety. Some very superior pens of *Hamburghs* were competing that from overshooting combined with neglect were quite unfitted for the wear and tear of constitution ever resulting from incessant travelling and excitement. In the Selling class Dark and Light *Brahmas* were the prize-takers, both good, and being restricted in price to 30s. the pen they soon changed ownership. *Aylesbury Ducks* were most excellent, and the *Rouens* were fully equal to them. *Geese* and *Turkeys* were superior classes. In the *Cochins*, the Partridge-feathered were fine, and the pullets of that perfect pencilling so difficult to meet with in the present day, but which was so striking a feature of Partridge *Cochins* in the days when the Punched strain were so notorious.

In Pigeons, the Variety class was a very interesting one, the prizes being taken by Fire Pigeons in exquisite feather; and a pen of Burmese Pigeons, quite a new variety, and one that from their very peculiar markings were much admired.

In the class for Any variety of fowls not included in the foregoing classes, the Rev. A. G. Brooke won with his well known pen of Malays, closely pressed, however, by a pen of Black *Hamburghs*, the property of the Duke of Sutherland. Even in the largest of shows it would be difficult to find two pens their equals.

On an ornamental water near the entrance to the Show, three couples of Ducks, which were literally Fancy Waterfowls, enlisted a great amount of public attention; in fact, it was almost impossible to get near the pond from the crowds by which it was constantly surrounded. It appears a trio of young ladies had subjected these six Ducks to the effects of Judson's dyes, and the extraordinary hues of these birds was only equalled by the singularity of the disposition of their gay colours. One sported a blue head on a body of deep orange, another a mixture of crimson and mauve, whilst others had all the gay costume of a clown or pantaloon. It was laughable in the extreme when, from among the weeds, first one and then another of these eccentricities became visible, how much the bystanders became interested; and whilst inquiries were rife enough as to what breed they could be, the climax of the joke was attained by several parties wanting to know if eggs from those beautiful Ducks were procurable. Alas! like many other things in this world, it was all outside show; but it was remarkable that even after these Ducks had washed themselves *ad libitum*, the colours seemed to be as fast as at the outset. It would be interesting to know whether this dye will prove as permanent as it appears likely to be, and we cannot but congratulate the fair operators not only on the success of the experiment to enlist public curiosity, but also on the variety of the hues and disposition of the colours on these gaudy and remarkable impostures. Surely, to draw a company, they might be lent on hire beneficially equally as show pens; though no doubt distance softened down irregularities that might have been offensive on too near an inspection.

GAME.—Cock.—Cup, Duke of Sutherland, Trentham Hall. Black or Brown Red.—1, Duke of Sutherland. 2, T. Hassall, Market Drayton. *hc*, J. Chesters, Nantwich. Any other variety.—1, G. Lurt Market Drayton. 2, Duke of Sutherland.

BANTAMS.—1, H. Yardley, Birmingham. 2, Duke of Sutherland.

DORKINGS.—1 and 2, C. D. Hudson, Market Drayton.

BRAHMAS.—1, Mrs. S. Cotes, Cheshambury. 2, Duke of Sutherland. *hc*, J. Boune, Donnington Barracks; W. Baker, Etches, Broughall. c, J. H. Kemp, Market Drayton.

COCHINS.—1 and 2, J. G. Pearson, Market Drayton. *hc*, H. Yardley.

HAMBURGERS—*Gold or Silver-spangled*.—1 and 2, Duke of Sutherland. *Gold or Silver-pencilled*.—1 and 2, Duke of Sutherland, *hc*, J. Long, Bromley Common, *c*, F. W. Meynell, Verby.

ANY OTHER VARIETY.—1, Rev. A. G. Brooke, Shrawardine, Shrewsbury. 2, Duke of Sutherland.

SELLING CLASS.—1, Worrall, Lilleshall, Newport (Brahmas). 2, J. Bourne (Brahmas). *hc*, Mrs. E. Williams Penilly, Berwick (Dorkings). *hc*, J. Wheeler (Eagles).

HEAVY-T.—1, J. Bourne (Brahmas). 2, S. Podmore, Horton's Wood, Wellington (Brahm as).

DUCES.—*Aylesbury*.—1, J. Wheeler, Long Compton, Shipston-on-Stour. 2, Duke of Sutherland. *hc*, E. Shaw, Hiss Willmot, Oswestry. *Any other variety*.—1, Duke of Sutherland. 2, E. Shaw (Roman). *hc*, C. D. Hudson (Carolina). *c*, J. Wheeler (Eagles).

GESE.—1, W. B. Etches. 2, Duke of Sutherland. *hc*, G. Holland, Stockton; E. Shaw.

TURKEYS.—1, W. B. Etches. 2, Rev. W. B. Corfield.

PIGEONS—*Carriers*.—1 and 2, H. Yardley. *Any other variety*.—1 and 2, Rev. A. G. Brooke (Nuns and Burmeses). *hc*, H. Yardley (3); Duke of Sutherland (Archangels). *c*, K. H. Edleston, Newport (Black-mottled Tumblers).

The Arbitrator was Mr. Edward Hewitt, of Eden Cottage, Sparkbrook, near Birmingham.

ARMLEY AND WORTLEY POULTRY SHOW.

THIS was held on the 7th and 8th inst. We must defer our remarks until next week.

GAME.—1, H. Beldon, Goltstock Bingley. 2, J. Worsnop, Wortley. *hc*, W. Ellis, Newsum Green. *Cock*.—1, H. Beldon. 2, S. Kayner, Farnley.

BANTAMS.—1, H. Beldon. 2, J. Roberts, Bramley. *hc*, A. Wilkinson, Burley; W. Ellis.

HAMBURGERS—*Gold-pencilled or Spangled*.—1 and 2, H. Beldon. *Silver-pencilled or Spangled*.—1 and 2, H. Beldon. *Black*.—1 and 2, H. Beldon. *hc*, M. A. Hildsworth, Wortley.

POLANDS.—1 and 2, H. Beldon.

SPANISH.—1, H. Beldon. 2, J. Thresh, Bradford.

BRAHMA POOTRA.—2 and *hc*, H. Beldon.

COCHIN-CHINA.—1 and 2, H. Beldon.

ANY VARIETY.—1, H. Beldon. 2, Birk-borough & Hildsworth, Harrogate.

GESE.—*Dark*.—1, W. Howgate, Hunslet. 2, T. Rydal, Bramley. *Light*.—1, Mrs. J. Jackson, Armley.

DUCKS.—*Rouen*.—1 and 2, Parkinson & Marshall, Dewsbury. *hc*, G. R. Porritt, Farnley. *Aylesbury*.—1, G. R. Porritt.

GUINEA FOWLS.—2, J. W. Akeroyd, Armley.

PIGEONS.

CARRIERS.—1, J. E. Crofts, Blythe.

OWLS.—1, J. Thresh, Bradford. 2, H. Beldon.

TURBITS.—1, J. E. Crofts. 2, H. Beldon.

BARDS.—1, J. E. Crofts. 2, J. Thresh.

TUMBLERS.—1, J. E. Crofts. 2, H. Beldon.

FANTAILS.—1, J. E. Crofts. 2, Mrs. J. H. Hepper, Wortley.

JACOBIANS.—1, H. Beldon. 2, J. E. Crofts.

ANTWERPS.—1, W. Hildsworth. 2, H. Denison, Wortley.

ANY VARIETY.—2, J. E. Crofts. *hc*, J. Thresh.

CAGE BIRDS.

NORWICH.—1, J. Howden, Armley.

BELGIAN MAILED.—1, W. Applestan, Wortley.

YELLOW OR BUFF.—1, P. Beard, Farnley. 2, J. Atkinson, Holbeck.

LIZARD.—1, J. Howden. 2, W. Applestan.

MULES.—1, J. Howden. 2, F. Wild, Armley.

BULLFINCH.—1, J. Howden. 2, R. Robinson, Wortley.

GERMAN BIRD IN SONG.—1, R. Crosland, Low Wortley. 2, J. Howden.

CANARY.—*Any Breed*.—1, J. Howden. 2, J. Wilkinson, Wortley.

PARROTS.—*Grey*.—1, P. W. Norliffe, New Wortley. 2, W. Clogg, New Wortley. *Green, or any other variety*.—1, W. Hudson, Armley. 2, J. Whitaker.

RABBITS.—*Any Breed*.—1, S. Eall, Bradford; T. Myton, York. 2, G. S. Burton, Beeston. *Lap ear*.—1, T. Myton. 2, Adams & Mills, Bradford; G. S. Burton. *hc*, J. Wainman, Wortley.

OPEN TO WORTLEY AND ARMLEY.

CANARIES.—*Yellow English*.—1, T. Harrison, Wortley. 2, J. Howden. *hc*, W. Applestan. *Buff*.—1, Hepston, Wortley. 2, W. Clegg. *hc*, J. Howden.

MARKED.—1, W. Applestan. 2, R. Crosland. *Two Crested*.—1, R. Crosland. 2, S. Galloway, Armley.

VIARY.—1, W. Applestan. 2, R. Robinson.

JUDGES.—*Poultry*: Mr. J. Crosland, jun., Wakefield; Mr. J. Cannan, Bradford. *Birds*: Mr. W. Brownridge, Leeds.

THE ANNUAL ZOOLOGICAL SALE AT ANTWERP.

ANTWERP with its churches, shipping, pictures, and wood-carvings is known to many of us, but it is almost as well known for its Zoological Gardens, where each year at this time the unwearied and successful direction invites all comers to attend the public sale of its spare specimens, and has invariably a surprise in store for its visitors. Highly successful in acclimatisation and breeding, each successive introduction of Pheasants and Game birds has found its home in the little gardens at Antwerp.

Last week the auctioneer had a pleasing although a long and tedious task. On Tuesday and Wednesday birds, beasts, and reptiles under his hammer were adjudged to societies, amateurs, and dealers from all parts of Europe. Some idea of the variety of objects offered may be formed, when we say that the list comprised an elephant, giraffes, and lions, and ended with serpents and seals.

On Tuesday, soon after ten in the morning, the sale commenced with small foreign birds, which found ready purchasers at prices slightly in advance of those of our retail bird dealers. It was surprising to see the number of Java Sparrows and Bndrigars that found purchasers. Some of the earlier lots of White Java Sparrows brought long prices. Turquoisines, Cockateels, the different varieties of Cockatoos followed. One handsome Masked Parrot was a great bargain to the Gardens at Amsterdam, at £9; a pair of Black Cochins fowls that would not have been thought much of by us went at a good price to Berlin, as did a pen of very good adult Spanish. Silkies of indifferent quality sold well, as did Dorkings and Houdans. A pair of Blue-

checked Guinea Fowls made £4 4s.; a pair of Crowned ditto, 59. A pair of Argus Pheasants 2700f., and an unusually fine pair 3000f. A pair of Polyplectron Germanix, bred in the Gardens, made 1100f., one pair Chinquis 850f. These were bought for the Zoological Gardens of Cologne. One pair of Temmincks Tragopans brought for the same made 825f. One cock and two hens Vieillotii (the hens faulty), 110f. One pair of rare Pheasants, Dardigallus proclatus, made 1600f., for Paris; and a second pair 1400f., for Amsterdam. Dr. Evans became the possessor of a pair of Tragopans for 1450f. Reeves's Pheasants varied, good pairs making 300f. and 325f. Swinhoes 210f. One pair of the now scarce Gallus furcatus, bought by Mr. Baily of London for 150f., was resold for Paris. Curious among birds, but most amusing in their quaint waddling gait and comical expression of eye, were eight or nine Penguins. They stood in their enclosure and watched the proceedings narrowly, so tame that they would feed from the hand. Two fetched 450f., for Cologne; one 230f., for Berlin; one 223f., for Amsterdam. One pair of Bennett's Kangaroos in excellent condition was purchased for the Zoological Gardens at Frankfurt. The Cranes were very beautiful and in great variety, but the demand slow. A pair of Demoiselles made 300f. Black-necked Swans, Black Swans, and young Trumpeter Swans all found ready purchasers; as did the beautiful little Ducks, of which a great many were sold at good prices. But the choicest birds, with the exception of the Arcuata, were bought for Continental collections. The gems among the Ducks were one pair of Kasarka variegata, which made 325f.; one pair of small Teal, Querquedula formosa, 210f.; and one pair, said to be from the Cape, 280f. The different varieties of Whistling Ducks mustered in force and were in favour. One, the little Arcuata from India, is likely to become a favourite with us. Mandarin, Carolinas, Shell Ducks, and Shovelers made full prices. Some Bar-headed Geese made from 200f. to 240f. a pair. Gold and Silver Pheasants sold as usual; but some Chinese (a Collier), made great prices. Three young Bears made nearly £40; a Porcupine 150f.; Rhesus Monkey 35f.

The beautiful varieties of foreign Pigeons attracted great attention, and they made full prices on both days. The greatest attraction was a pair of Bleeding-heart Pigeons. These were bought by Messrs. Baily, of London, for 580f. The Nicobar Pigeon with its metallic plumage and hackled neck was much sought after for France, as it breeds well. There the price was about 130f. to 140f. per pair. The elegant Crested Lophotes about 75f. Some Blue Jacobins, 30f. to 45f. Montaubans, 60f. to 90f. An almost endless variety and sequence of little Doves, and plumage cage birds. Among them Whydahs, Cut-throats, Military Starlings, Cow-birds, Rice-birds, and Thrushes, from America. Scarlet and Blue Tanagers. Returning to larger things we may notice a new feature, one we suppose introduced by the Director in emulation of our English Short-horn sales. A Bull, two Cows, and four Calves, imported Short-horns, made 5600f. A Zebra, bought by Mr. Montgomery for Dublin, 1800f.; and a second, bought for Paris, 1560f. The young Elephants and Giraffes were put up but were bought in. Several pairs of Seals were sold at the apparently low price of 100f. and 120f. the pair.

The company was large from the beginning to the close of the sale, the arrangements good, and the conditions of the birds and animals wonderfully good. The Zoological Societies of all the principal cities of Europe (London excepted), were represented, and many amateur buyers from Italy, Paris, and Germany. Belgium and Holland were strongly supported. The principal buyers from England were Messrs. Jamrack, Baily, Montgomery, Castang, &c.

POUTERS, ANY OTHER COLOUR OR MARKING.

I HAVE read with close attention the correspondence on the above question. The discussion arose from Mr. Huie's article which appeared in the Journal of January of this year. That article is plain and practical, no "spinning of a yarn." We have repeatedly seen the work of the four gentlemen implicated in judging our most important shows, and have failed to perceive any decided difference in the proclivities of any of them. How, then, have they managed to disagree? The question appears to be, "How is a standard bird produced and maintained?" This can only be dealt with when we have solved the previous question of what a Pouter is. Mr. Huie, therefore, starts with, "It is neither colour nor marking, but shape, that constitutes the Pouter Pigeon." Mr. Ure coincides when he says, "Colour and marking do not make a Pouter, they only finish one." As no other has been put forward we are bound to infer that the definition has been found to be correct. That being so, Mr. Huie then proceeds to tell us from his own experience how best to produce and maintain the bird so defined; and let us here remark that anything that falls from the pen of such veteran breeders as Messrs. Huie and Ure on this subject should be received with deference by fanciers of less range and experience.

The foundation of Mr. Huie's breeding structure rests on "Pouters any other colour or marking," and for that reason, and the encouragement of poor fanciers, he advocates a class for

them. (We think, however, the title might be simplified to "Any other Pouter," as we do not see how mismarked birds can be consistently excluded from it, a White splashed with blue, and a Blue splashed with white being but Tom and Thomas). In pleading his case he makes a statement of facts based on his own experience, clearly proving the breeding utility of the class in question. These facts have not been denied or disproved, and we are bound to accept them as being correct. If Mr. Stuart had proceeded in the same way—first defined and then given us his experience in breeding the bird so defined, we could the more easily have understood him.

The position taken up by Mesers. Huie and Ure commends itself to us. We fancy how the makers of this variety set about their work. First the peculiarity of the breed—the globe, attracted attention; that was attained. Then the fine taper body and Belgian shoulder were found to suit it best, and the work was completed when set on the fine pedestal of the limbs. The indescribable grace known as "style," inherent in the most common Pigeon, became intensified in the transition as the bird acquired the perfect use of his more fully-developed organs. But our artists must needs go further, and following the instinct of all true art, they next proceeded to embellish their work. Then we got the uniform colour, with the moon to give decidedness to the globe, and the rose-wing to illumine the shoulder. This done, the Pouter was perfect, precluding farther improvement or embellishment. The breeder was then left to use intelligently the law of selection for the preservation of all characteristics. It cannot be denied that in the long-continued application of this law something has been attempted in the way of improvement, and that every such attempt means the introduction of a foreign element. But unless the proper proportion of parts—in other words, the definition given, be kept in view the result is deterioration. Had limb only kept pace with recent elongation of feather, present breeders would have good cause to congratulate themselves. As it is, we are inclined to accept Mr. Ure's statement that the birds of the old school were more perfect Pouters. It can be no intelligent use of the fore-mentioned law to sink all qualities for the conservation of one, be it colour or anything else. Nay; the intelligence displayed will just be in proportion to the number and importance of the characteristics preserved. Their relative importance we have indicated, and can only add, as the result of our experience, that we would rather discard a badly-shaped Pouter than a badly-marked or off-coloured one otherwise possessed of the fundamental excellencies of his breed. The carvings of antiquity, though beautiful in themselves, can give us no idea of the noble buildings they adorned, and be it remembered that no amount of sandpaper and varnish can ever conceal bad construction.

Blood, by which we mean the tendency to revert to ancestors, is of course a great thing, and some otherwise weedy birds possess the faculty in a marked degree. But it is not everything, and pushed to extreme is an absurdity, as will be seen on a moment's reflection. Fighting one's way into a strain, it is undoubtedly the shortest and surest course to let only the fittest survive—fittest, be it remembered, in terms of the definition. Guided by any single idea, there is a limit to the experiments, and a time certainly arrives when it is absolutely necessary to re-make the type or call in the aid of the much-condemned birds if we wish to preserve the taper body and high shoulder of this most kingly bird. Which is easier? Woful, then, is the plight of the fancier whose appetite for "Pied Pigeon" or single ideas has overcome his discretion. Were the straightforward policy of Mr. Stuart correct we would all be breeders alike, and standard birds plenty as pebbles. He speaks hastily, and, as it appears, against part of his experience, when he says we can do without them. To sum up: If we must deteriorate, by all means let colour and marking go first. *Chacun à son goût.*

The exposition of these breeding opinions (lofty ideas we may call them) on paper or the show-table, aiming as it does at the preservation of perfection, can surely never be charged with being antagonistic to that aim. We allow that a blue chequer is not a pretty colour, a black chequer only passable, a sandy and most splashes simply ugly, while their introduction into a loft where colour and marking is the *ne plus ultra* will assuredly create a difficulty. Their supporters do not breed for them, but through them, and in the overcoming of the difficulty is their keenest pleasure. From this off-coloured denunciation we except the Mealy. We know something of him, and would not be in the least mealy-mouthed to sound his praises did space permit. We simply add our concurrence in the regret of anything that tends to the discouragement or stamping-out of this unique combination of beauty and usefulness. To conclude, when we are all agreed on the end to be attained, why quarrel about the process?—D. McNAUGHT, *Kilmaurs, Ayrshire.*

BRITISH BEE-KEEPERS' ASSOCIATION.

FIRST GREAT EXHIBITION.

I FIND many bee-keepers who were not able to be present at this Show are desirous of learning where the various hives and

appliances (Ligurian queens and stocks), are to be obtained. Will you kindly announce that our Committee are anxious to disseminate all information that will tend to advance bee-keeping? and I shall be happy to put intending purchasers in communication with the vendors, or, if preferred, procure and forward any article desired, as well as give any information in my power, either through your columns or privately. I should also feel obliged by your noting the following addenda et corrigenda to the prize list—viz:

CLASS 22.—2, J. Armstrong.
CLASS 24.—3, A. Ferguson. 4, W. Martin. 5, L. Reed. 6, T. Anstin.
CLASS 25.—3, S. J. Baldwin. 4, W. Martin.
CLASS 26.—4, J. Walton.
CLASS 27.—Equal merit, C. N. Abbott and J. Lee, in lieu of first and second.

—JOHN HUNTER, *Eaton Rise, Ealing.*

"You know you are a sort of cross-breed, 'D,' so you can do that," was "our doctor's" address to me the other day. I need not say what that was, but I at first thought the "cross-breed" had some reference to my Huguenot descent; but found that it was not so, but that my interest in things connected with this Journal was not confined to flowers, as I went in for fowls and bees. Well, I didn't do that; but the same reason holds good, I suppose, for my being asked to say something on the wonderful exhibition which was held last week at the Crystal Palace, on all things aërial the little busy wee things whose ways and means have pointed many a moral along the ages, but who never, perhaps, received the attention they do now.

The first thing that struck me on going into the Exhibition was, What a strange world is this we live in! Here was an enthusiastic crowd of men in all stations of life, whom one had never seen before, to whom all that belonged to these little busy insects was as much a matter of interest as were the flowers and fruits which filled the other part of the transept; who have their own journal, from which, surely, nothing but bonied words ought to distil; whose talk was of supers, bars, Woodburies, German fungus, and other matters which were High Dutch to all but the initiated. But it was extraordinary how large a number of persons seemed practically to be acquainted with, and in some measure to understand, the difficult operations connected with bee-keeping.

And now first as to hives. A large number of these of straw, wood, or both combined, was exhibited, and of various degrees of excellence, the point most regarded being the facility of operation and cheapness of construction. Of course the bar hive stands out as the only one really deserving of recognition now-a-days; and Mr. Abbott of Hanwell, a most thoroughly practical bee-keeper, deservedly stood first for having introduced a bar hive which can be made for cottagers at 3s., placing thus the best-constructed hive within the reach of all. It is astonishing how the cottager still clings to his straw skep and to the practice of smothering his bees, and how every failure (and failures there are ever likely to be) of those who keep bees on more humane principles is blazoned forth as a proof that these new-fangled notions will not do, while they also cling to the notion in many parts of the world that the hives ought not to be taken until hopping time; and as they have few flowers here after the limes are over, it is clear that for a month they are consuming the honey they had stored up. One exhibitor showed a marvellous structure which would have delighted a cockney gardener—a house in which several hives were stored. I have myself had sad experience of houses of a more humble structure—the wax moth got into them. Last year I lost one hive by it, but thought it was all gone. To my surprise and horror I find that it has this year destroyed entirely a fine Woodbury hive, so that my stock is now greatly reduced; and I believe the advice of all experienced bee-masters now is, Let each hive be protected, but let it stand by itself. The modifications of the Woodbury hive were numerous, but that something has yet to be done may be gathered from the fact that the prizes for the best hive for observation purposes and also that for the best hive on the collateral principle were withheld. A very beautiful breed of Ligurians was exhibited by Mr. W. C. Smith, and deservedly obtained a prize; while some grand boxes and supers of various kinds were exhibited. One exhibited by Mr. Carr was declared by him to be above 100 lbs., a marvellous result from one hive, although this did not obtain the prize, and we may therefore conclude that that which did so was heavier still.

It was a bold idea to attempt to show in such a place as the Crystal Palace some of the more delicate manipulations by which the bee-master gets the greatest benefit from his interesting stock; but the driving of bees was most successfully shown by Mr. Abbott, assisted by Mr. Cheshire and others of the Committee. Those of the readers of the Journal who keep bees know what driving is, but many even of those who keep bees would have been glad to have had the opportunity, as they had, of seeing the operation performed. The Bee-Keepers' Association deserves great praise for the manner in which they have carried out the details of the Exhibition; and knowing as I do the stimulus that horticultural exhibitions are to the growth of flowers, I have not the slightest doubt that the Exhibition of

bees held at Sydenham will mark a new era in the history of bee-keeping in this country.—D., *Deal*.

THE Committee did well in selecting the Crystal Palace for their first Show. Very few buildings could afford a length of more than 600 feet of staging, and leave room for the perambulation of many thousand people. The astonishment of the visitors at the beautiful honey display was excelled by the earnestness with which the bee-keepers and the *would-be* bee-keepers examined the various hives and apparatus. The exhibitors present, and the gentlemen of the Committee, spared no pains to explain the working of everything inquired about; and we will now endeavour to place before our readers our impressions of what we were enabled to inspect.

Commencing with the *hives*, we found nearly all the various systems represented. Class 1, for observation purposes, had six entries. The Judges, however, awarded no prize, on the ground, as we were informed, that they saw nothing of sufficient merit. We think they were in error here, as an observatory hive, No. 1, exhibited by the well-known Messrs. Neighbour & Sons, was one of the best hitherto designed; and although an experienced bee-keeper can dispense with the necessity of having the bees all imprisoned when studying their economy, it should not be forgotten that ladies and others cannot all act with the same impunity, and for such a glass-covered hive is a desideratum. No. 2, exhibited by the Rev. F. Leaver, was simply a pretty toy of no practical use.

Passing on to Class 2, "for the best skep or box hive for depriving purposes that can be supplied for 3s." Some very good straw skeps were shown. One, No. 9, exhibited by W. Martin, even was fitted with bars, but the prize in the class was, we think, justly awarded to Mr. C. N. Abbott for a veritable Woodbury, price 3s., with many improvements, small in themselves, but great in the aggregate, which time and experience have taught to be desirable. Practical men have begun to think that a close-fitting crown-board is a mistake; and here we have a square of carpet in its place, which is said to be a better covering, allowing easier ventilation. If the spirits of the departed can take any interest in things mundane, how gratified the shade of our late esteemed correspondent, Mr. Woodbury, must be at finding that no excuse can now be made by the *poor* man that scientific hives are too expensive for his use! In this class there were seven entries, each well worth the price affixed.

Passing now to Class 3, "for the best moveable comb hive for depriving purposes," we have no limit of cost; and, consequently, the prices range from 5s. to £21. The latter for No. 16, which its inventor styles the "Sibertswold," we can only look upon as a fancy price. The prize was awarded to Mr. F. Cheshire; and certainly this hive was a marvel of good workmanship and thoughtful attention to the requirements of its inhabitants, both for breeding and honey-gathering purposes. All who can afford its price, 50s., will do well to provide themselves with one, if only as a pattern for home-manufacture. Among its specialities we may mention that the outer case is double, enclosing an air space, which greatly assists in keeping an equable temperature. The floor-board is moveable, and fluted to facilitate the riddance of wet. The entrance can be contracted at will, and the whole is covered with a substantial weather-proof roof. An inspection of the inside shows the frames reposing on a knife-edge slip of zinc in such a manner that they cannot be propolised. There is no interspace between frames and crown-board; and the latter also forms an adapter, and enables feeding to be carried on without disturbance. A moveable diaphragm at one end of the hive permits space to be at once obtained whence to shift the frames without being under the necessity of removing them from the hive. Its capacity by the same means can also be reduced at will. Altogether, we think that Mr. Cheshire may be congratulated on exhibiting the best hive we have yet seen.

Another novelty was No. 36, exhibited and designed by Mr. C. N. Abbott, the Editor of the "British Bee Journal." This hive attracted much attention, and is likely to do good service to its purchaser. One of the peculiarities of the frames is an absence of the bottom rail. Excepting being some protection against the warping of the frame, we think it well dispensed with. There is no vacancy here between the upper surface of the frames and the quilt or carpet, which takes the place of crown-board. This is put forth as an advantage proved. Woodburys of more pretensions than No. 13 figure here, but seem rather in the shade by the side of their aristocratic rivals. Altogether we found twenty-five entries in this class, and Class 4 obtained eleven, the prize in which was taken by Mr. J. Lee with the well-known Carr-Stewarton, a useful hive, and very ornamental for the lawn or garden. No. 40, "Rusbridge's Cabinet," attracted much attention, and its courteous inventor was unflinching in explaining its features. It, however, seemed far too complicated to make much way. The same remark holds good with No. 42, "King's Patent Safety."

Class 5, "for the best hive for use on the collateral principle." This system is evidently, like the old close skep, doomed. It elicited but five entries, not one of which had much merit; and

this was the opinion of the Judges, the prize being withheld. No. 51 was certainly novel, as was its name—"The Bell-glass Straw Balloon." We pity the bees compelled to dwell in it. From the great loss of heat they must sustain, prosperity would be hopeless.

The completion of the hives was attained by Class 6, "for the most economical (best and cheapest), complete hive on the moveable comb system for cottagers' use." The prize in this was taken by Mr. C. N. Abbott, for what may be termed an "improved" Woodbury, price 6s. 6d., with quilt and roof, only wanting paint to make it a hive good for ten years' service.

Altogether the hives numbered sixty. Certainly a better assemblage than ever was gathered together before, from which the working man with brains as well as hands could see at once how to make the hive most suitable to his wants.

In Class 27, "for the best and largest collection of hives, bee furniture, &c.," the two competitors, Messrs. Abbott and Lee, ran a neck-and-neck race. The first-named made his show in greatest variety, the latter's certainly appeared neatest and best made. No other competitors came near them, and the third prize was withheld.

Class 28, "for the best drone trap," elicited four competitors, and the prize was gained by Mr. Cheshire; and in the next class, for feeders, the same gentleman showed a contrivance beautiful in its simplicity, but which the Judges evidently thought inferior to No. 246, exhibited by Mr. J. S. Turner. Mr. Cheshire's feeder simply consisted of a plate of vulcanite on a pivot pierced after a particular pattern, and intended to be used instead of the perforated zinc usually placed on the feeding-hole. Being a non-conductor, it is not chemically affected. A bottleful of syrup is simply inverted on it, and the vulcanite can be turned about to regulate the supply at will.

Class 30, "for the best appliance for introducing queen bees to stocks." Nothing better appeared than the queen cage of our old acquaintance, "A RENFREWSHIRE BEE-KEEPER," which gained the prize.

Class 31, "for the best bee-dress." No novelty appeared, if we except an excellent make of gloves of india-rubber, similar to tobacco pouches, which is a great improvement on the clumsy macintosh.

Class 32, "for the best method of quieting bees during manipulation." The articles competing were simply smokers. The prize went to No. 261, Mr. F. Cheshire.

Class 33, "for the cheapest and best supers for general use." Nothing particularly worth notice; but Class 34, "for the best honey-extractor," seemed the most valuable novelty of the Show. There were but four entries, the principle of all being the same—i.e., centrifugal force. The decision of the Judges was in favour of No. 246, made by Starling & Co. Herein we must differ. Those exhibited by Mr. Walton and Mr. Cowan certainly appeared to work smoother, had greater simplicity, and last, not least, were about half the price. Starling's machine consisted of a skeleton wooden frame nearly 2 feet square, and about 3½ feet high. Within the frame is a galvanised iron barrel, 2 feet high, and nearly the same in diameter, enclosed in which is a revolving framework in which the combs are put to be emptied. Motion is obtained by handles and cog-wheels at the top, and the centrifugal force given to the frame throws out the honey against the side of the can, whence it runs to the bottom to be afterwards let out at a tap. The whole machine appears to be about one-third bigger than it need be.

In Class 27, which was devoted to new inventions, Mr. F. Cheshire took no less than four prizes—in fact, all that was awarded. The gem of the whole being what he termed a "transferring board," for the purpose of transferring combs from straw skeps to bar-frame hives, of which we will endeavour to give a description, but it can only be properly explained by means of a drawing. When open, the board consists of sixteen wooden tongues, fixed like the teeth of a comb. It has legs which support it at a convenient height above the table, and underneath, a pan to catch any dripping honey. On the tongues is placed the comb to be transferred, and the frame is fitted on to it. A lath is then laid in position under the comb, and a tape passed between the tongues and fastened at once at the top. The board is very ingeniously arranged, so that it can throw the comb at once into the perpendicular, and enable the comb to be lifted out and placed forthwith in the new hive. Mr. Cheshire truly must have the organ of invention highly developed.

Having gone through the hives and apparatus, we now pass into the manipulating-room, where experienced hands are giving public lessons in driving, transferring, &c. This is a most interesting part of the Show, and the public think so too, for the place seems always crowded. Behind a glass screen the demonstrator exemplified how simple it was to empty a hive of its rightful inhabitants. The operation seemed the same as described by Mr. Woodbury in our columns many years ago. The combs of many skeps were dexterously transferred to frame hives cleanly and quickly by means of the prize "transferring-board," and the action of the honey-slinger shown many times

each day. The burden of the work here fell upon Mr. Abbott and his son; the latter, although a lad, seemed quite fearless of the bees. Whilst the operations were progressing they were explained by one of the Committee to the spectators. The visitors seemed astounded at the impunity with which those behind the screen handled and moved about amongst the bees; but the fact was, the generally irritable little beings were so scared that they had forgotten how to sting. A little practice is worth a deal of theory, and we feel confident that scores of bee-keepers after their lessons here will in future resort to driving in lieu of burning their bees.

Altogether we must congratulate the British Bee-keepers' Association on having in the first year of their birth achieved an immense success and given a great impetus to bee-keeping. Errors and shortcomings were inseparable in their undertaking, and must be looked upon leniently; but *experientia docet*, and we have no doubt their next venture in the same direction will be an improvement on their first.

BEE-KEEPER'S CALENDAR FOR SEPTEMBER.

(Concluded from page 245.)

WE have come at last to the process of taking honey and wax. I dislike the job, and dislike to talk about it. I would rather swarm fifty hives artificially than take and run the honey of one. Happy is the apiarian who has a sturdy wife or servant to undertake this work. Many old women are first-rate hands at taking honey. I am only a pupil teacher in this school, and have been in it for many long years without making any progress at all. When I was a gentleman's gardener I regretted that no one had invented a machine for sweeping leaves up in autumn. I then thought, and think still, that a machine for sweeping lawns could be invented and produced. What an annoyance it is to employers to see six or ten men hunting leaves every morning in front of their sitting-rooms! For many years I have wished that some ingenious apiarian would produce a machine for extracting honey from combs. Let my friends Mr. J. Lee, of Windleham, the great hive manufacturer, and Mr. R. Astou, who has invented excellent drone traps, consider my suggestion. At present we go in the rut of our great grandfathers. As soon as honey hives have lost their bees they are removed to as warm a room as can be found (we put ours in a vinery). The sticks are at once withdrawn, the combs are taken out of the hives, and the honey parts are placed in one milkpan and the refuse combs in another pan. If there is a fire in the house the honeycombs should be kept near enough the fire to gain warmth, but not near enough to melt the wax. The warmer the combs are, the more readily does the honey run; hence the desirability of running the honey before the natural heat of the combs is lost. After the honeycombs are well broken up they are poured into a bag of cheesecloth or thin towelling. The honey runs through this bag into a vessel. Next morning the honey is skimmed, and ready for use or sale. This seems to be a very simple and easy process. Yes, but it is a slow one. As the honey cools it thickens and stops running. We frequently hand-squeeze the bag to get all the honey through it while it is warm. Moreover, we frequently squeeze the honey out of the combs before it is put into the bag. This is the speedier way, if it is not the best at present known.

There is a right and a wrong way of squeezing combs, and the right way is learned by practice. Heather honey cannot well be extracted from combs without squeezing. A machine to answer well should have the pressure put on the edge of the combs, and not on their broadsides. The reader will catch my idea if I say that sheets or cakes of honeycombs should be placed between two perforated boards or sheets of iron, and these pressed with something like a pump-handle, having a strong leverage. In hand-squeezing, the sides of the cells are pressed together. The object is to have honey perfectly pure, without a particle of farina in it. In taking honey nothing need be lost. The combs that have been drained, and the refuse combs that contain honey amongst the brood, should be given to weak hives or those that need food. The bees will gather up every drop of honey, and their filters are so perfect that not a speck of impurity will be carried into their own combs. If honey be mixed with pollen, soil from the garden, or flour, and given to bees, they will take the honey and leave the rest. In filling supers by giving bees the refuse combs and honey tainted with farina, I have been frequently struck with the excellence of the honey so purified by them.

After all the refuse combs have been cleansed of honey they are carefully gathered together for wax. They are put into the same kind of bag as that through which the honey was run, and boiled in water in a copper or boiler. The wax comes to the top like a yellow oil; it is skimmed off and put through a bag or sieve, letting it drop into cold water. A second time it is boiled in clean water, and put into dishes to cool and cake. A letter from a lady in Australia came here a few months ago asking many questions about bees, and one of them was for information how to clean her pots and dishes of the wax that adhered so tena-

ciously to them. A good handful of soda thrown into warm water and applied to wax destroys in a great measure its adhesive properties. Good wax is easily saleable. We are offered 2s. 3d. per lb. for ours.—A. PETTIGREW.

OUR LETTER BOX.

MIDDLETON SHOW.—Mr. O. E. Cresswell states, "I sent no birds to the Show, though I had entered some, and my pens were or ought to have been empty. If other birds were put in my pens with my name upon them, it is a highly blameworthy proceeding of the Secretary."

TOMMOUREN SHOW.—Mr. S. Ball writes to say that he was awarded the first prize in the Angora Rabbit class.

OIL PAINT ON PLEUMAGE (*Gallus*).—We believe turpentine will remove it. If it does not, and you wish to exhibit them, do so with the paint. An accident is not a disqualification.

SALE OF HONEY (*Alfred Pocock*).—It is not our custom to name buyers and sellers of articles. If we were to name a house or mart for honey at a good price, we might possibly induce too many sellers to offer their goods there, and thereby do something to lower prices, which range from 1s. to 1s. 6d. per lb. Let your neighbours know that you have honey to sell.

UNITING SWARMS (*W. E. M.*).—We cannot account for the failure; we always succeed, and therefore think that the cause of the failure is not in the mode or principle, but in the application of it. The feeding is to put bees off their guard to a certain extent, and the use of mint is to prevent one swarm from smelling another. We remember attempting to unite two swarms without feeding or anything else. A swarm was cast into a strong hive, and instantly a wholesale slaughter commenced, when we ran to a bed of mint, tore off a large handful, and crushed it as we returned to the hive. This crushed mint being cast amongst the combs and bees put an end to the slaughter. If we had not applied the mint every bee of the euredendred swarm would have been killed in fifteen minutes. In casting both swarms on a cloth and letting them creep together into a hive, they are put to the disadvantage of considering themselves trespassers or poachers; both swarms seek safe shelter, and have nothing to defend at the time. The dead bees in front of your other hive were probably robbers.

ABBOTT'S HIVES (*F. W.*).—We cannot inform you where they can be purchased. Write to the dealers in hives who advertise in our columns, and see a letter on another page.

TAKING HONEY WITHOUT DESTROYING THE BEES (*St. Bridgid*).—Your plan of "sneaking an empty hive with syrup, and putting it upside down under your full hive," will certainly not induce the bees to desert their well-found home, although, doubtless, they will descend and carry up the syrup. Driving is the simplest process, which has been frequently described in these pages. For 5d. you can obtain full printed directions by return of post from this office if you will order "Bee-keeping for the Many." Now is a good time to take your honey; if later you will probably get less of it.

RED LICE ON CANARIES (*W. L. K.*).—They are not lice, but red mites or cage bugs, a species of *Acarus*. They live in the cracks and joinings of the cages, and at night sally forth to suck and annoy the birds. By thoroughly cleaning the cages, saturating the cracks with linseed oil, and then filling them with flowers of sulphur, and dusting sulphur among the birds' feathers, also by cleaning the nest and sprinkling powdered sulphur in, you can get rid of these pests. Wherever any floury or mouldy appearance is noticeable about the joints or crevices of the cage, these torments to the birds may be suspected, and no time should be lost in giving them notice to quit.

PRESERVING STONE FRUIT (*K.*).—You will find an article on the subject in vol. xiii., page 319 (No. 693).

MEAT-MAKING (*W. H. A.*).—To a gallon of water put 2 lbs. of honey and 1 lb. of sugar; boil for an hour, put in the whites of four eggs to raise the scum, and skim it quite clear whilst boiling; then put it into a clean tub and let it stand for a week, putting in a toast with honey to make it work; then tun it, put in the peels of three or four lemons, let it stand for a month, and then if it is not sufficiently fine put in more honey, and let it stand longer.

METEOROLOGICAL OBSERVATIONS,

CAMDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W.; Altitude 111 feet.

DATE.	9 A.M.				IN THE DAY.					
	Baromet. at 32° and Sea Level.	Hygrome- ter.		Direction of Wind.	Temp. of Soil at 1 foot.	Shade Tem- perature.		Radiation Temperature		Rain.
		Dry.	Wet.			Max.	Min.	In sun.	On grass.	
1874.	Inches.	deg.	deg.		deg.	deg.	deg.	deg.	deg.	In.
Sept.										
We. 9	29.539	61.2	57.5	W.	52.1	66.0	55.1	11.2	5.1	0.1 3
Th. 10	29.629	55.7	51.0	S.	57.5	64.8	41.9	112.5	42.7	0.046
Fri. 11	29.732	53.9	52.7	W.	56.5	64.0	49.0	70.4	46.2	0.253
Sat. 12	29.670	59.9	63.5	W.	57.8	66.4	58.5	113.6	51.3	—
Sun. 13	30.178	57.3	54.8	N.	57.2	71.3	43.9	118.6	42.7	—
Mo. 14	30.381	55.0	53.5	S.	56.5	67.5	46.2	115.1	33.2	—
Tu. 15	31.209	57.7	55.2	S.W.	56.0	68.1	45.2	112.2	42.5	—
Means	29.903	57.5	54.0		57.2	65.9	48.2	107.5	45.9	0.412

REMARKS.

9th.—Fine early, rain at 10 A.M., and heavy at 11, thunder at 4 P.M., lightning at 11.17 P.M., and a wet night.

10th.—Very fine, but rather cold morning, thunder at noon, and 2 P.M., and in the afternoon; wind rather high, and alternate sunshine, and short showers.

11th.—Fine early, but rain by 8 A.M.; a wet uncomfortable day, with scarce a gleam of sunshine.

12th.—Fair, but rather dull early, then fine till 5 P.M., when it looked very stormlike, and a few large drops of rain fell; a shower at 6 P.M., but a fine evening.

13th.—A very bright enjoyable day throughout.

14th.—Hazy from 7 to 10 A.M.; fine till noon, then cloudy for an hour or two, but very fine afterwards.

15th.—A most beautiful day, as bright and clear as June, with a very pleasant A week of very unsettled weather; some days being cold and quite autumnal, others as bright and pleasant as possible, the temperature in all cases a trifle lower than that of the preceding week.—G. J. SYMONS.

WEEKLY CALENDAR.

Day of Month.	Day of Week.	SEPTEMBER 24—30, 1874.	Average Temperature near London.			Rain in 43 years.	Sun Rises.	Sun Sets.	Moon Rises.	Moon Sets.	Moon's Age.	Clock after Sun.	Day of Year.
			Day.	Night.	Mean.								
24	TH	Twilight ends 7.47 P.M.	66.1	43.5	54.8	19	51 at 5	53 at 5	46 5	15 3	14	8 1	267
25	F		65.8	43.1	54.4	21	53 5	51 5	0 6	46 4	0	8 21	268
26	S		65.7	43.8	54.7	21	54 5	48 5	13 6	17 6	16	8 42	269
27	SUN	17 SUNDAY AFTER TRINITY.	65.3	44.6	55.0	24	56 5	46 5	23 6	49 7	17	9 2	270
28	M	Rindbeck died, 1702.	65.1	44.0	54.5	22	57 5	44 5	47 6	21 9	18	9 22	271
29	TU	MICHAELMAS DAY.	65.5	44.3	54.9	26	59 5	42 5	11 7	55 10	19	9 43	272
30	W		65.0	43.3	54.2	24	1 6	39 5	44 7	after.	20	10 1	273

From observations taken near London during forty-three years, the average day temperature of the week is 65.5°; and its night temperature 43.8°. The greatest heat was 82°, on the 25th, 1832; and the lowest cold 23°, on the 23th and 30th, 1835, and 29th, 1812. The greatest fall of rain was 1.68 inch.

NOTES ON SOME OLD PLANTS.



COMMELINA CELESTIS is a plant now but seldom met with in gardens. It is not showy, and will not sustain the epithet magnificent, yet it is very beautiful in its own quiet way, and is altogether a more attractive subject than most people are aware of.

In many books and catalogues it is described as a stove plant, but this is not correct, or is so only to a certain extent; for although it does well under stove treatment, it does still better when grown as a half-hardy tuberous-rooted perennial, which in reality it is, like the *Dahlia* and *Salvia patens*.

The best way to get up a stock is to sow in heat early in spring; and as the seed germinates very freely, a hundred or so of plants will be the outcome of a shilling packet of seed. These, either potted-off three in a pot or pricked into boxes, gradually hardened, and planted-out in May, will begin to bloom early in July. They do not, however, as a rule, flower very profusely the first year, but the second their capability in that way is something not to be complained of. They are most suitable for planting in a mixed herbaceous border light and sunny, in clumps of three or four, and they seldom require stakes. Their tripetaled flowers are of a peculiar silky glossy texture, and the colour, as the name implies, is a light sky-blue of a tint nearly unique amongst flowers. They are easily damaged by rain, but a day's sunshine brings out more in abundance from the curious little pouches or spathes in which they are enclosed. There is a white variety, but it is not nearly so well worth cultivating.

About the **MARVEL OF PERU** (*Mirabilis Jalapa*), there is nothing specially marvellous, except that, being such a sportive plant, we should have no better varieties of it than we have, although as it is it gives us a great variety of colours. How it got its big name it is not easy to guess. Pizarro and his interesting ragamuffins certainly unearthed greater wonders than this in that once-venerable country (Peru), and probably the recollections of these influenced the introducers of this pretty flower; or more likely its extreme variability of colour both in flowers and leaves might in these days be deemed something miraculous.

It may be raised in the same way as *Commelina*, but in Scotland it requires a warmer and more sheltered border. I find it succeeds best when treated in the following manner:—Having procured the tubers, pot them singly into 6-inch pots, and start them in gentle heat not earlier than the beginning of March. If small, two or three may be put into each pot. By the middle or end of May throw out pits 10 or 12 inches deep in the border where they are to be planted. Into each of these put an inverted 9-inch pot at such a depth that its bottom will be only an inch or so below the surface of the ground, and put a plant on each side of and close to the pot. Thus managed the temperature of the ad-

joining soil is raised to an appreciable extent. This simple plan can also be used with advantage in the case of many other tender plants.

When cut down by the frost, the roots are lifted and treated as *Dahlias*.

It may be here remarked that one of the elements of success in growing large numbers of half-hardy plants which require their roots to be protected during winter, is the grouping together of such as are found to agree with a somewhat similar treatment. It may be difficult to suit exactly the tastes of each, for flowers, like mortal men and women, have queer likes and dislikes; but a little experience soon enables the observant cultivator to treat each group in a way that is best for it as a whole, although the subjects composing it might be individually better cared for if time and room permitted. Thus, whoever grows *Dahlias*—and who does not?—may keep a whole host of other good things going in the same track.

There is another old plant well worth calling attention to, not so much on account of its beauty as of its season of bloom, which, beginning with September, extends well into the following month. This is *LOBELIA SYPHILITICA*, with light blue spikes, from 2 to 3 feet high. It is not so showy as plants of the *Lobelia fulgens* or *splendens* class, but it has the advantage of being perfectly hardy, which these are not. If raised from seed sown in slight heat in March it will bloom the same season, and it may afterwards be propagated by offsets in the same way as *fulgens*. A bed of it edged with something brighter and more decided in colour has a soft and pleasing appearance, and being of a robust habit it stands the autumn storms well.

In looking over lists of hardy herbaceous *Lobelias* in some of our standard books, it has often struck me that either many of the sorts there enumerated are now lost, or that many of the names are synonymous, or that—which is the most likely supposition—my acquaintance with them is very limited. I have before me a list of upwards of twenty, two-thirds of which I rather think nine gardeners out of ten have never seen. Perhaps some correspondent of the *Journal* would kindly call the roll that we may know what we have, what we have lost, and what we never had.—R. D. TAYLOR.

ANNUAL RENEWAL OF STRAWBERRY BEDS.

THE observations on this by "W. R." in last week's *Journal* contain a remark to which I as a Strawberry-grower for many years take exception. He says, alluding to the annual renewal of the beds, that it is "only resorted to by those who do not properly prepare their ground in the first instance, and know very little about Strawberry growing," &c. For my own part I have always recommended annual renewal, because I find it answer best; and that the older the beds are, the crop deteriorates in the same ratio; besides, several plants die every year, which does not improve the appearance of the beds. I have also repeatedly in this *Journal* stated how the beds are prepared. Then as to results: I have taken

more first prizes for Strawberries during the last six years at the great exhibitions in London than all other exhibitors put together, and all the fruit has been gathered from plants that were runners the previous year; and I fancy if other successful exhibitors were to write their experience they would say the same. As far as I am concerned, I can truly say that all the fruit sent-in to the house is of the same quality as that which goes to the exhibitions. As to quantity, a remark I once heard the late Mr. Robert Fish make is not forgotten, and in the case of Strawberries is invariably followed out. "Cram them, cram them," was the veteran's remark; and this we do for four months.

Then as to the remarks made by "W. R." about varieties. It does seem that some varieties specially interesting to him are not thought so much of by "gardeners who talk very large in print," "and who dictate the only sorts that should be grown." I would like to tell "W. R." that we gardeners only recommend the sorts we find to answer in our own gardens, and this we do for the information of the readers of the Journal, and that we have not the least interest in the varieties whatever further than that. I grew and fruited two sorts recommended by "W. R."—viz., Early Prolific and Duke of Edinburgh, but both sorts were discarded after one year's trial. They were neither considered so good for forcing nor for exhibition as the older sorts. If they had, would it not have been foolishness on my part and great waste of my employer's money to have thrown them away? Does "W. R." think that gardeners will believe him when he says that he saw ripe fruit of Duke of Edinburgh early in April "produced with little or no artificial heat?" They must have been forced Strawberries in the usual sense of the word. What does he mean by saying that it is "simply ridiculous" to compare such sorts as Black Prince and Keens' Seedling with Early Prolific? Is it that Early Prolific is so much superior to them? If so, I differ from him. I still consider Black Prince the best variety for early forcing, and Keens' Seedling is the best to succeed it, to be followed by President and British Queen.

It is quite natural that "W. R." would rather accept the opinion of such men as De Jonghe or anybody else who think the same as he does, and who praise Early Prolific as a "masterpiece of skill." For my part I always make an allowance for the statements of foreigners (this with no disrespect to M. De Jonghe and M. Gloede). For instance, what can any practical man make of a description of an Orchid by a gentleman with a foreign name in a contemporary last week? He said the lacinulæ "spread as the fingers of a man swearing before lawyers." Of course we must make the best of such a description, and try to fancy what the flower must be like, the same as we do when an ordinary Strawberry is described as a "masterpiece of skill." No one would make such a remark unless specially interested.—J. DOUGLAS.

ROSE-GROWERS' CONFLICTING VIEWS.

AN American paper tells a story of a man who, having just bought a horse, consulted various authorities as to the manner in which it should be lodged. He read that a side window in a stable makes the horse's eyes weak on that side; a window in front hurts his eyes with the glare; a window behind makes him squint; a stable with a skylight is too hot in summer and too cold in winter; a window in a diagonal line makes him shy when he travels; and the absence of a window makes him blind. So the animal was taken to the auction mart! It appears that there are also "conflicting views" as regards Roses. I have been reproved by two authorities for not recommending Marie Baumann, and for recommending Edward Morren and Vicomtesse de Vezins, two noble Roses, full-sized, good growers, very hardy, abundant bloomers, and excellent exhibition Roses, the former being globular and the latter compact and expanded. Both these Roses are included in a select list by Mr. George Paul. In the same list is Marie Baumann, with this observation, "A little weak in growth." If it is a weak grower in such fine Rose land as Mr. G. Paul's, what can be its growth in inferior lands? It is a beautiful Rose, but twenty-one plants of it here have dwindled away and died. For this reason I do not recommend it to the general public. La France is in the list referred to; it is a capital grower, hardy, and finely foliaged, but it does not bloom freely here. My account of it is the same as Mr. Cant's and that of "G. S.," one of our best amateurs. I lost out of 2400 Roses six last winter, and about as many this trying summer. I never saw a finer sight, about June 14th, than the first series here. Many

of the first blooms had to be cut away, as the spring frosts, followed by a scorching sun, injured them. As regards Baron Chaurand, it is rightly described by Mr. W. Paul as "one of the best dark Roses," which is quite true. It is lovely, and perfect in its colours and form, but it is not a large Rose. I have thirty-two plants of it, and shall buy fifty more. I have twenty in one bed, and a more beautiful sight I never saw than these plants in full bloom at the same time. I will not recommend bad growers, tender Roses, or reluctant bloomers. In the same list Mr. G. Paul says of Mademoiselle Eugénie Verdier, "Rather small grower, but too beautiful to be omitted." I have three plants of it here; it is a bad grower, and hence I have not recommended it. Louis Van Houtte, fifteen plants, has done well on the seedling Briar.

The following are beautiful Roses for exhibitors, but they are too shy in growth for the public:—Marie Baumann, Louis XIV., Madame Furtado, Marquise de Mortemart, Horace Vernet, Monsieur Noman, Xavier Olibo, and Lord Macaulay, a first-rate Rose.

I get on pretty well with Lord Macaulay by cutting the plants down to the stump every spring. Instead of Macaulay you must have Lord Clyde, which is an excellent Rose and a strong grower. It does Mr. G. Paul great credit as the raiser. We want decorative Roses as well as show Roses. Those I recommend will mostly serve both purposes.

I am glad that I agree with Mr. Camm about Paul Neron, the ragged crater of Vesuvius, and also as to what he says of Souvenir d'Elise. There seems to be a rage among nurserymen and some amateurs for huge Roses. I think it was the late Mr. Glenny who said, "Some men judge flowers as farmers do hayricks, by the number of square yards in the rick instead of by the quality." Some of our most perfect Roses are either small or medium-sized—for instance, Duchesse de Caylus, W. Griffiths, Cécile de Chabillant, Mesdames Rivers and Vidot, Empereur de Maroc, and Baron Chaurand. I have yet to learn that small or medium-sized Roses are not fit for exhibition.—W. F. RADCLIFFE, *Okeford Fitzpaine, Dorset.*

PLUMS IN WORCESTERSHIRE.

AT this time of the year you generally publish a class list of the best Roses elected by the votes of some of the most distinguished growers, and when so many of your readers are interested in the beautiful I feel almost ashamed to intrude upon them with a question of profit; but it may be interesting to some to know the comparative merits of different varieties of Plums. I therefore send you an account of the market value of the crop of certain specimen trees which were planted in the year 1864, and are now in their tenth year.

The market price of the different varieties in this district has been as follows:—Pershore Eggs, 8s.; Rivers's Early Prolific, 12s.; and the other varieties named, 14s. per pot of 90 lbs. weight, the pot (about 7 lbs.) included. The money value, according to the above scale of prices, of the produce of one specimen tree of each of the following varieties, which are planted side by side in rows, as nearly as I can estimate it has been as follows. I have classed them in order of merit. Pond's Seedling, *alias* Fonthill, £1 1s.; Victoria, *alias* Alderton, 18s.; Black Diamond, 16s.; Pershore Egg, 12s.; Cox's Emperor, *alias* Denbigh, *alias* Jemmy Moore, 9s. 6d.; Prince Englebert, 8s.; Autumn Compoète, 7s. 6d.; Rivers's Early Prolific, 6s.; New Orleans (a local Plum), 5s.; Kirke's Plum, Belgian Purple, Done Bank, Reine Claude de Bayar, each 4s.; Oullin's Golden Gage, Jefferson, Washington, each 3s.; Green Gage, 2s. 6d.; Purple Gage, 1s. 6d.; Mitchelson's, 4d. Some varieties are still upon the trees—e.g., the Belle de Septembre, the Winescur, and the Prune Damson, but I do not anticipate that they will average more than 2s. each per tree according to the prices named above. Of course this estimate of prices with regard to some varieties is to some extent guesswork, but I think that I am within 6d. of the value of the different trees.

At the beginning of the season we were very much pestered by blackbirds; but it is a curious fact that when the wasps and hornets came, as they have done this year in greater numbers than I ever remember, the blackbirds disappeared. I should be curious to hear if the same result has been noticed elsewhere. The Plums which are least attractive to these depredators are Pond's Seedling, Black Diamond, and Prince Englebert, but they rejoice in anything belonging to the family of Gages. Wasps seem to prefer Pears, such as the Colmar d'Eté and Williams's Bon Chrétien even to these.

It will be seen by the above list that Pond's Seedling has

this year attained the first place. This Plum has the reputation of being a shy bearer, but I find it very prolific on high ground out of the reach of frost. It does not come into bearing so early as the Victoria, nor as a rule does it crop so heavily, but it grows quite as strongly, and is much tougher in the wood, and the fruit is larger in size. If Plums are grown for profit, I should draw a line below the Rivers's Early Prolific as it stands in my list.

The Pear crop is very good this year, but I notice a curious result. I have varieties of Pear—*e.g.*, the Louise Bonne and Vicar of Winkfield, grafted on three different stocks—the Pear, the Quince, and the common Quirk or Whitethorn, and the Pears on the Quirk stock are this season half as large again as any of the others.—WILLIAM LEA, *St. Peter's, Droitwich*.

NORTHAMPTONSHIRE HORTICULTURAL SHOW.

NOVELTIES IN THE ROYAL GARDENS, KEW.

THOUGH a dull season of the year for Orchids in flower, there are still several of much beauty and interest. Two good varieties of *Odontoglossum grande* are very attractive. *Zygopetalum maxillare* is still in perfection, and the rich bine of its lip is in contrast to the colour of everything else. *Miltonia candida* var. *grandiflora* is very beautiful; so also is an extra fine variety of *Miltonia Clowesi*. Among the *Oncidiums* are *O. Harrisianum*, *O. Wentworthianum*, *O. obrizatum*, and *O. Limminghii*: all are worthy of cultivation. The first has a very neat habit; the last is remarkable, "perhaps the most singular in the whole genus." The flowers are large in proportion to the size of the leaves, which are closely adpressed to the block on which the plant is growing. There is a good variety of the beautiful and distinct *Cattleya Adairiae*; this plant appears to flower freely. Others are *Dendrobium chrysanthum*, *Pleione lagenaria*, *Eriomysticiformis*, *Phalanopsis cornu-cervi*, and, as a matter of course, *P. rosea*, with many of botanical interest.

Flowering in the Palm house are two beautiful climbers of the order *Malpighiaceae*, both with yellow flowers. They are *Thryallis brachystachys* and *Stigmaphyllon ciliatum*. The former has oval leaves, green above and white underneath. It flowers in large masses. A native of Rio de Janeiro. Peas and loam in equal parts may be used for its culture. Cuttings strike readily. *Stigmaphyllon ciliatum* is better known than the above; the flowers are larger, but fewer together; its branches are slender, and hang gracefully; the leaves are dark green, and ciliated with long hairs distant from one another. It is a native of Brazil, and will succeed with the treatment for the preceding.

Passiflora Munroi is one of the finest climbers in the temperate house on account of its handsome dark green foliage and beautiful sweetly-scented flowers. It is a hybrid between *P. alata* and *P. carulea*, the former being the female parent. In character the leaves are those of the latter, but larger. The flowers are intermediate between the two. It was described in 1868, and is worth the attention of all who do not already possess it. *P. alata* is flowering in the Palm house, and is also handsome, it is nearly allied to *P. quadrangularis*.

The *Asters* are commencing to make a show in the herbaceous ground, and of them there is a large collection. *A. Shortii* is the finest now in flower, it is about 4 feet high, and is loaded with large, finely-formed, lavender-coloured flowers. *A. turbinellus* is very distinct and good, the stems are slender, and the flowers large. *Frankia grandiflora* is an excellent autumn-flowering herbaceous plant; it has beautiful light green foliage, and pure white flowers of good size, valuable for cutting. *Hypericum patulum* is rare and elegant, one of the finest for borders. It was figured in the "Botanical Magazine" for 1868, where we are informed that "it is a native of Japan, where it was discovered by Thunberg ninety years ago, and was introduced into Kew by Mr. Oldham, collector for the Royal Gardens, who, after making many valuable botanical collections, perished of fever on the coast of China." The flowers are large, $1\frac{1}{2}$ to 2 inches in diameter, and freely produced. The stems are reddish, and reach a height of about 2 feet. It is quite hardy. *Salvia arustifolia* is a handsome blue-flowering species from Mexico. It has neat and distinct foliage, and is worth cultivation from the late period of its blooming.

FERNS AS WINDOW PLANTS

IN No. 699, page 165 of the Journal, "F. I." says that he has brought Ferns from the Isle of Man and other places, but could never get them to live more than one season. The

reason to me is plain, and that is, he has neglected to provide them with congenial soil. Unless attention is paid to this essential I do not wonder at his non-success. For example, the *Scelopendrinums* and *Polypodiums*, which grow so freely in North Lancashire, grow on a limestone formation, and if I do not procure a sufficiency of soil with the roots, I mix lime-rubbish rough-casting from houses will do amongst the soil when potting; this, and taking care to keep the outside of the pots clean, will preserve them alive and luxuriant for many years. A seven-years-old *Scelopendrium* which I have now has upwards of one hundred fronds upon it, grown in a 6-inch pot, and will keep green and luxuriant through the winter.—BETA.

This Show, which was held on the racecourse at Northampton on the 15th inst. in connection with the County Agricultural Society, was a marked success. Stove and greenhouse plants were unusually good for the season, Mr. J. House of Peterborough taking the first position; but it is the cut flowers, and especially the Roses, which we are induced to note.

The liberal schedule of prizes for Roses had evidently been prepared in view of a favourable autumn for the queen of flowers, and the result proved that the Committee had made "a gold," the display of Roses having been rarely, if ever, equalled previously in the fall, auguring well for Roses in the concurrent Exhibition now being held at Lyons. Messrs. Paul and Son appeared in good force, coming to the front in both the leading classes of twenty-four and twelve trebles, having good blooms of *Princess Beatrice*, which has proved a leading show Rose this year; *Madame George Schwartz*, *Charles Lefebvre*, *Alfred Colomb*, *Madame C. Craplet*, *Baroness Rothschild*, *Fisher Holmes*, *Paul Neron*, and *Maréchal Niel*. Mr. Prince, who arrived late, was a good second in both classes, and in his usual colour; indeed, another hour for arrangement might have turned the scale in his favour. Mr. House, who had evidently suffered more than his competitors from the heavy rains of the previous Wednesday, had otherwise fine flowers, and was third. Mr. Perkins of Coventry also showed well. In the classes for gentlemen's gardeners and amateurs Mr. Laxton and Mr. Whittle of Leicester were first with good twelves, the former also being first in the class open to both. Teas were also well shown, Mr. Prince being foremost. We noticed in this class clean blooms of *Maréchal Niel*, *Catherine Mermet*, *Triomphe de Rennes*, *Niphotos*, *Belle Lyonnaise*, *Madame Océle Berthod*, *Madame Caroline Kuster*, *Cloth of Gold*, and *Narcisse*. In new Roses Messrs. Paul were first, and "The Shah," who appeared in glaring scarlet, took the post of Honour.

There was a large and good competition in Dahlias, Mr. Walker of Thame taking the lead. *Asters* were remarkably fine, the two stands of French shown by Mr. Laxton, who was first in both classes, being particularly good. Mr. Walker also showed well, and Mr. Tranter of Henley amongst amateurs, Mr. Walker being first in the Globe quilled class. Table decorations were a feature, and with the bouquets filled a large tent; Mrs. Turner, the Mayoress of Northampton, and Mrs. J. Phipps exhibiting much taste in the arrangement of a group of three pieces and a centrepiece, with fruit and flowers for the dinner-table.

Fruit, with the exception of Grapes and Pines, which were not so well shown as might have been expected in so favourable a locality as Northamptonshire with its numerous resident landed proprietors, was good. Amongst Apples, Messrs. Brown of Stamford showed their new seedling *Peasgood's Nonesuch*, very fine and highly coloured. Red *Astrachan*, *Franklin's Golden Pippin*, the Irish Peach Apple, *Quarrenden*, and *Reinette Blanche d'Espagne* were also nicely coloured and good. Pears, with few exceptions, were not ripe.

In vegetables, Broccoli and Onions were well shown, but, as a rule, the Potatoes were coarse. Altogether the Show, which was contained in seven large marquees, was a decided success, and creditable to the management.

ELECTION OF ROSES.

I PROCEED now to give to the readers of "our Journal" "the state of the poll," but first a word or two on the utility of this election. On the one hand I have had letters considering it unnecessary, whilst on the other I have received regrets that the election was not extended to other flowers. Apart from both of these classes, I have met during the past year with an example of a class for whom this election was specially intended—*viz.*, those fond of gardening and who are lovers of Roses, but who can from various circumstances only grow a certain moderate number. The gentleman had long been

known to me by name, being the father of a very dear friend of mine, but this year a personal meeting between us took place. I was not aware of his gardening propensities, and was astonished, after we had chatted on other matters, by his remarking, "I am sure we are all very much indebted to you." I looked aghast, I could not understand what was coming, but it turned out that it was for "the election of Roses" in "our Journal." And then he kindly enlarged on the topic, adding that he waited for the election before "deciding on the Roses he was going to order." Here was then an unexpected testimony to the usefulness of the work. I have thought over it and taken courage whilst reading replies urged against its utility. To the Rose exhibitor it is not comparatively of much use—it is more a matter of curiosity how our favourites will stand, but to this class of lovers of gardening it is very important. A word, too, on the electors. It would be a great thing could we insure that none should vote who were not thoroughly qualified to exercise the right. On the face of it this sounds well, but it is very difficult to accomplish. Is there to be "a competitive examination" for electors? It had crossed my mind to try something of the kind, but to get those who really possess the knowledge to give us the information they possess in black and white is not so easy; at least, I have failed in getting several to give us their opinions, and the reasons are so diverse it seems hopeless to reconcile them. One says the number asked for is too great; the next replies, The number is so small, better say a hundred. For myself I cannot understand the apathy of the trade in assisting such elections. One fancies it ought to increase the sale of Roses. Does it, perhaps, make too great a run on the good ones? Any way, one regrets the absence of the names of some of the "giants" in Rose culture; but as we cannot carry out the "no compulsion, only you must" system, we are obliged to be content.

One word more. I think we all ought to deal leniently with the different fancies of Rose-growers, which make them often call different Roses the most beautiful. Only think what a serious thing it would be if men were not to have different fancies, and all to set their affections on the same woman. What an uncomfortable world this would be! So, as we are not at all likely to think alike, or even to see alike on all subjects, it seems to me both more Christian and more charitable to reason that such a voter has some good and sufficient reason for naming a Rose which we ourselves discard as utterly worthless. Our soils and climates are so various that there is much to account for our differences, and we need not disagree because we differ. Out of the fifty Roses that we each name, about two-thirds of us name the first thirty Roses on the list, and several of the remainder are accounted for by the eccentricities of our English climate, whilst the rest may be set down to the crotchets and fancies that cling even to Rose-growers. For instance: out of the nineteen nurserymen only two, Messrs. Turner and Walter, have named Roses all of which have been named by some other voter. All the rest have one or more in their lists named only by themselves, and curiously enough these two follow each other in my table. Of the amateurs, Mr. Burrell alone names Roses that all obtain votes other than his own.

It will be noticed that the replies number thirty-eight in all, and that by a curious coincidence they are composed equally of amateurs and nurserymen. This renders the return somewhat more interesting; and some Roses—as, for instance, *Maréchal Niel*, *Alfred Colomb*, *Prince Camille de Rohan*, *Souvenir de Malmaison*, and *Lyonnais*—have received the same number of votes from each class of voters, both as to quantity and quality of votes, and this in the three last-named is very curious.

I have adopted the same plan as in the general election, 1872, and kept the two classes of voters distinct. In the following table the first column designates the position of the Rose. Where the grand total is equal between two or more Roses their position is settled by the number of first-class votes—that is, the first twenty; if these are still equal, the Roses are bracketed together. Next follows the name of the Rose. The letters after the name show what kind of Rose it is. Then I have attempted to carry out a suggestion of Mr. Peach's, and added the name of the raiser of the Rose. Mr. Peach had nearly completed his own list in this manner. Mr. Pochin further assisted me, but several are still wanting. Column A denotes the number of first-class votes given to any Rose by amateurs; B, the number of second-class votes; C, the total of amateur votes. The letters with an * show the same

for the nurserymen. The last column is the total of amateurs' and nurserymen's votes added together.

No.	ROSE.	RAISER.	A	B	C	A*	B*	C*	Total.
1, 2	<i>Maréchal Niel</i> , N.	Pradel	19	..	19	19	..	19	58
3	<i>Alfred Colomb</i> , H.P.	Lacharme	19	..	19	19	..	19	58
4	<i>Charles Lefebvre</i> , H.P.	Lacharme	19	..	19	18	1	19	58
5, 6	<i>Madame Rothschild</i> , H.P.	Pernet	17	2	19	18	1	19	38
7	<i>Marie Baumann</i> , H.P.	Baumann	18	..	18	16	3	19	37
8	<i>La France</i> , H.P.	Guillot, fils	18	..	18	16	3	19	37
9	<i>Louis Van Houtte</i> , H.P.	Lacharme	18	6	19	15	3	18	37
10	<i>Mad. V. Verdier</i> , H.P.	V. Verdier	10	8	18	11	8	19	37
11, 12	<i>Cmts. d'Oxford</i> , H.P.	Guillot, père	14	3	17	18	1	19	36
13	<i>Eugénie Levet</i> , H.P.	Levet	14	4	18	17	1	18	36
14	<i>John Hopper</i> , H.P.	Ward	11	8	19	9	8	17	36
15	<i>Duke of Edinburgh</i> , H.P.	Paul & Son	9	9	18	11	7	18	36
16	<i>François Michelon</i> , H.P.	Levet	8	7	15	10	9	19	34
17	<i>Mlle. E. Verdier</i> , H.P.	Guillot, fils	8	8	16	9	9	18	34
18	<i>Marj. de Castellane</i> , H.P.	Vernet	13	3	16	13	4	17	33
19	<i>Séateur Vaise</i> , H.P.	Guillot, père	6	10	16	7	10	17	33
20	<i>Pierre Notting</i> , H.P.	Portemer	9	8	17	9	6	15	32
21	<i>Devoniensis</i> , T.	Curtis	8	8	16	9	7	16	32
22	<i>Xavier Ohba</i> , H.P.	Lacharme	2	13	15	2	15	17	32
23	<i>Dr. Andry</i> , H.P.	E. Verdier	7	10	17	5	9	14	31
24	<i>Mgt. de St. Amand</i> , H.P.	Sansal	5	8	13	5	13	18	31
25	<i>Gloire de Dijon</i> , T.	Jacotot	11	4	15	10	5	15	30
26	<i>Mlle. Marie Raby</i> , H.P.	Fountain	7	11	18	2	10	12	30
27	<i>Souvenir d'un Ami</i> , T.	P.	6	9	15	6	8	14	29
28	<i>P. de Lesspès</i> , H.P.	E. Verdier	5	9	14	6	7	13	27
29	<i>Prince Cam. de Rohan</i> , H.P.	do.	2	11	13	2	11	13	26
30	<i>Emilie Haubourg</i> , H.P.	Levéque	8	5	13	3	9	12	25
31	<i>Souvenir d'Elise</i> , T.	P.	5	7	12	3	9	12	24
32	<i>Dupuy-Jamain</i> , H.P.	Jamain	4	8	12	..	12	12	24
33, 34	<i>C. Bernardin</i> , H.P.	Gautreau ? Bernardin ?	7	5	12	3	8	11	23
35	<i>Catherine Mermet</i> , T.	Guillot, fils	5	7	12	3	8	11	23
36	<i>Edouard Morren</i> , H.P.	Granger	4	6	10	5	7	12	22
37	<i>Abel Grand</i> , H.P.	Damaizin	4	6	10	..	11	11	21
38	<i>Exposition de Brie</i> , H.P.	Granger	1	11	12	3	6	9	21
39	<i>Victor Verdier</i> , H.P.	Lacharme	2	8	10	1	10	11	21
40	<i>Mau. Bernardin</i> , H.P.	Granger ?	3	10	13	..	7	7	20
41	<i>Horace Vernet</i> , H.P.	Guillot, fils	2	5	7	6	6	12	19
42	<i>Paul Neron</i> , H.P.	Levet	2	4	6	1	12	13	19
43	<i>Madame C. Wood</i> , H.P.	E. Verdier	2	8	10	..	9	9	19
44	<i>Madame Willermoz</i> , T.	P.	..	9	9	1	8	9	18
45	<i>Niphotos</i> , T.	P.	..	5	7	4	6	10	17
46	<i>Mad. G. Schwartz</i> , H.P.	Liabaud	1	9	9	3	5	8	17
47	<i>Souvenir de Malmaison</i> , B.	P.	1	7	8	1	7	8	16
48	<i>Fisher Holmes</i> , H.P.	E. Verdier	1	9	10	1	4	5	15
49	<i>Duke of Wellington</i> , H.P.	Granger	1	6	7	..	8	8	15
50	<i>Cmts. de Chabrilant</i> , H.P.	Maréchal	2	8	10	1	3	4	14
51	<i>M. Noman</i> , H.P.	Guillot, père	1	8	9	1	4	5	14
52, 53, 54	<i>Mad. C. Joigneux</i> , H.P.	Gonod	1	9	9	2	3	5	14
55	<i>Dchess. de Caylus</i> , H.P.	C. Verdier	1	7	8	..	6	6	14
56	<i>Belle Lyonnaise</i> , T.	Levet	2	7	9	1	2	3	12
57	<i>Beauty of Waltham</i> , H.P.	W. Paul	3	4	7	..	5	5	12
58	<i>General Jacquemont</i> , H.P.	P.	1	4	5	..	7	7	12
59	<i>Celine Forestier</i> , N.	Andre Leroy	1	7	7	1	4	5	12
60	<i>Princessa Mary of Cambridge</i> , H.P.	Paul & Sons	1	4	5	..	7	7	12
61	<i>Julia Margottin</i> , H.P.	P.	2	3	5	..	6	6	11
62	<i>Laron Bonstetten</i> , H.P.	Liabaud	..	5	6	1	5	6	11
63	<i>Mlle. Therese Levet</i> , H.P.	Levet	..	4	5	..	5	5	10
64	<i>Mad. Lacharme</i> , H.P.	Lacharme	1	4	5	3	2	5	10
65	<i>Annie Laxton</i> , H.P.	Laxton	1	6	7	2	1	3	10
66	<i>Lyonnais</i> , H.P.	Lacharme	1	4	5	1	4	5	10
67	<i>Reynolds Hole</i> , H.P.	Paul & Son	2	2	4	..	6	6	10
68	<i>Antoine Ducher</i> , H.P.	Ducher	..	6	6	1	3	4	10
69, 70	<i>Lord Macaulay</i> , H.P.	W. Paul	1	7	7	..	3	3	10
71	<i>Annie Wood</i> , H.P.	E. Verdier	1	4	4	..	6	6	10
72	<i>Elie Morel</i> , H.P.	Liabaud	1	2	3	2	4	6	9
73	<i>Princessa Beatrice</i> , H.P.	W. Paul	1	2	2	2	5	7	9
74	<i>Centifolia Rosa</i> , H.P.	P.	1	5	6	1	2	3	9
75	<i>Lacha, or Louise Peyronny</i> , H.P.	P.	1	1	2	1	6	7	9
76	<i>Marie Van Houtte</i> , T.	Ducher	1	2	3	1	5	6	9
77	<i>Triomphe de Reunnes</i> , N.	P.	1	6	7	..	2	2	9
78	<i>Dchess. de Moray</i> , H.P.	Guillot, fils	..	3	3	1	5	6	9
79	<i>Richard Wallace</i> , H.P.	Lavéque	..	3	3	1	4	5	8
80	<i>Mlle. Bonnaire</i> , H.P.	Pernet	..	3	3	1	4	5	8
81	<i>Marquise de Gibot</i> , H.P.	P.	1	4	4	1	3	4	8
82	<i>Auguste Rigotard</i> , H.P.	Schwartz	1	3	4	..	3	3	7
83	<i>Perle de Lyon</i> , T.	Ducher	1	2	3	..	4	4	7
84	<i>Marquise de Mortemart</i> , H.P.	P.	..	4	4	1	2	3	7
85	<i>Boule de Neige</i> , H.P.	Lacharme	1	1	2	3	1	4	6
86	<i>Madame Hippolyte Jamain</i> , H.P.	Jamain	1	1	2	2	2	4	6
87	<i>Mlle. M. Dombrain</i> , H.P.	P.	1	3	4	..	2	2	6
88	<i>Rubeus</i> , T.	E. Verdier	1	2	3	..	3	3	6
89	<i>Sophie Coquerell</i> , H.P.	P.	..	2	2	1	3	4	6
90	<i>Monsieur Boncenne</i> , H.P.	Liabaud	..	5	5	..	1	1	6
91	<i>Hippolyte Flaudres</i> , H.P.	Damaizin	..	2	2	..	4	4	6
92	<i>Maréchal Vaillant</i> , H.P.	Lecomte	..	2	2	..	4	4	6
93	<i>Annie de Diesbach</i> , H.P.	Lacharme	..	4	4	..	2	2	6
94	<i>Mad. C. Crapelet</i> , H.P.	Fontaine	..	3	3	..	3	3	6

Eight Roses obtained five votes each: of these Capt. Christy, Chesbunt Hybrid, and Devienne Lamy obtained some first-class votes. Sixteen Roses obtained four votes; fifteen obtained three votes; nineteen, two votes; and sixty obtained only a solitary vote.

When first this present election was mooted I received an

anonymous note from "SOUTH HANTS" begging me to get the returns filled up so as to distinguish the fragrance of the Roses. It is very difficult now to get the returns. To some persons I have written three times without any reply. I am, therefore, unwilling to increase the dilliculty; moreover, it must be recollected that most fanciers look at a Rose fifty times to once smelling it, and that different persons have different ideas of the fragrance of flowers, one liking a perfume that another detests; so that I cannot think it would be any very great addition. But "SOUTH HANTS" will see that I have not forgotten the matter, and provided there is an election next year that I am able to carry out, I have a scheme that I think will meet the case.

By the thirty-eight electors 212 Roses have been named as amongst the best fifty. Of these, amateurs have named 170 Roses, and the nurserymen 176; thus running very closely together. In the best twenty 107 Roses have been named. Here the amateurs have again named the smaller number—viz., seventy-seven; whilst the nurserymen name seventy-nine. Here, again, the two numbers are nearly equal. I doubt not a few of your readers will compare this election with that of 1872, published in Journal of December 19th. Everyone will remark that two Roses have rapidly come towards the top of the tree; these are Roses of 1871—Etienne Levet and François Michelin. The former obtained honourable notice in 1872, receiving four votes and high praise from some growers; the latter, however, was not mentioned at all. They now rank respectively ten and thirteen. I cannot but think François will get higher. In shape it is to my mind superior to Etienne Levet, and it will be noticed that all the nurserymen have voted for it. Madame Bellon, President Thiers, and one or two others noted in 1872 seem to have disappointed expectation.

Four Roses are named by all, though two of these have some second-class votes. Four others lose only a single vote, and my curiosity is excited to discover why they are not named by the voters who have passed them over. In previous elections I have returned some papers, asking if such and such an omission were an oversight. I now think this is scarcely a fair plan, and I have allowed the lists to remain. Marquise de Castellane and Gloire de Dijon have retrograded, but both these Roses have a very large proportion of first-class votes. Edward Morren, Marquise de Mortemart, and Maurice Bernardin have also materially gone down. All votes for Louise Peyronny have been given to Lælia. There is a difficulty about Ferdinand de Lesseps and Exposition de Brie; and, again, Beauty of Waltham and Madame Charles Crapelet, Mr. Cant specially giving his votes for one or other of these. It must be confessed there is a great similarity between them; but here we do find this difference between the two former—that Ferdinand is by far the more robust both in constitution and growth. This, probably, accounts for the change that has taken place in their position as compared with 1872. The magnificent colour of Xavier Olibo has placed him in the best twenty; for it will be noticed that in the list he stands No. 19, but receives only two first-class votes from each class of voters. As an instance of the different value set upon two Roses by the two sets of voters, compare Marie Rady with Marguerite de St. Amand. With me the former is always kind, the latter has never given me a good bloom. All the nurserymen, save one, vote for the latter; all the amateurs, save one, vote for Marie Rady.

Of the comparatively newer varieties I collect these opinions. We have heard and read Mr. Camm's opinion of Madame Lacharme (the Rose I mean, of course), in these pages, that she was "a mockery, delusion, and a snare;" my experience coincided with his. Mr. Beachey says, "What a vile lot of rubbish last season's Roses are! Madame Lacharme the dirtiest, most frowy-looking French madame I have come across for a long time. I have never yet seen her with a clean face. I pity Mons. Lacharme if the original suggested the name on this account! All the rest of the French Roses have a hungry hollow look, as if they had helped to pay the German war indemnity, and in so doing had got quite sucked-out! Claude Levet, Mrs. Veitch, and Marins Cote appear to be the most respectable." Now, on the other hand, Mr. Burrell writes, "Madame Lacharme I have placed in the first twenty. It has been good here from cut-back plants, but indifferent on maiden plants, and I fear is an uncertain Rose, but as a nearly white Rose I think should take the first place." And Mr. H. May, of the Nurseries, Bedale, says, "From what I have seen of Madame Lacharme under glass, I consider it a gem" (the italics are mine), "it will become a great favourite for forcing,

every plant however small producing magnificent blooms with the greatest certainty. The Duchesse of Edinburgh, judging only from her appearance in an exhibition stand, must become a favourite, and Mr. Bennett may well be proud of her. She has only three votes from nurserymen, two of them being first-class; but one other nurseryman, though he does not place her, says he thinks "very highly" of her. Capt. Christy secures five votes, and one hopes it will prove an acquisition. Madame Auguste Verdier is again named by Mr. Harrison; and another nurseryman, who does not vote for it, says that procured from Mr. Harrison he is exceedingly pleased with the Rose. The Rev. E. N. Pochin says of it that he believes it is Madame Eugène Verdier revived. My recollections of this Rose are great endurance of colour, and this is one of the points Mr. Harrison mentions.

After the returns were complete and calculations made, I received from head quarters an election conducted by a gentleman in the north—Mr. Bewick, of Whalton, Morpeth. There are nine voters all in the district, but the returns of two of the voters are incomplete. This rather militates against the value of the returns. Still it is interesting as coming from the north, and giving us the value of Roses in that locality. The number of Roses to be named was twenty-four, and in all seventy-four are named. The twenty-four Roses that received the greatest number of votes and the votes that each Rose received are as follows:—

Alfred Colomb	9	Marquise de Castellane....	5
Charles Lefebvre	9	Louis Van Houtte	5
Madame Rothschild	8	Abel Grand	4
La France	8	Comtesse d'Oxford	4
Pierre Notting	8	Exposition de Brie	4
Duc de Rohan	7	Souvenir de Malmesdon....	4
Scutateur Vaisse	7	Duke of Edinburgh	3
Marie Baumann	6	Ferdinand de Lesseps	3
Madame Charles Crapelet ..	6	Etienne Levet	3
Gloire de Dijon	6	Marie Rady	3
Madame Victor Verdier.....	5	Paul Neron	3
John Hopper	5	Comtesse de Chabillant ..	3

Maréchal Vaillant and Maurice Bernardin also poll three votes each, thirteen obtained two each, and no less than thirty-five only a single vote. What I am chiefly struck with in this election is the fact, that in a limited district with the soil and climate probably more similar, there should yet be such diversity of opinion that thirty-five Roses should receive only one vote each. With more than four times the number of voters, and twice the number of Roses, the general election only has sixty-nine single votes. We most of us would notice with wonder that Maréchal Niel is not in the twenty-four named; shall I add to it by saying it is not in the seventy-four? Seeing that Climbing Devonensis has two votes, we wonder the Maréchal does not do with some sort of protection. Duc de Rohan's position astonishes me. With all it is a shy bloomer and decidedly tender, still very beautiful.

I have, in conclusion, to return my warmest thanks to all who have so kindly assisted me in carrying-out this election. Without their help it would have been a miserable failure; as it is, I hope it may prove both useful and interesting to the many readers of "our Journal." Especially I gratefully acknowledge the assistance of the Revs. C. P. Peach and E. N. Pochin, without whose valuable help I could not have made the list of the raisers' names as complete as it now is.

Next week I hope to give the full lists, and also a summary of the votes looked at from a different point of view—viz., North v. South.—JOSEPH HINTON, *Warrminster*.

THINGS OUT OF SEASON.

I wish to tell Mr. W. Taylor that at this date (September 20), I have Roses in prime condition for the button-hole on Elise Boëlle and Gloire de Dijon, dwarf plants, as many as sixteen buds. Lord Macaulay and Duchesse de Morny are producing most beautiful blooms. For scent Elise Boëlle is perfection, and for colour Lord Macaulay. Christine Nilsson has also several buds in various stages.

Now for Strawberries. May Queen is now fruiting for the second time this year in the open air; Perpetual Pine in bloom for the first time. Last October I got from a nurseryman plants of Le Gros Sucré, Vicomtesse Héricart de Thury, and Marguerite. I potted them for forcing. The plants not being good enough for the purpose, although housed through the winter, did not bloom or fruit. The pots were turned out in May into the open air, and in June were plunged into the soil. Le Gros Sucré and Vicomtesse Héricart de Thury bore

beautiful fruit all through August; Marguerite did not till the present month. On the 16th I gathered some dozen or more berries of first-rate flavour and good size. At this date the plants are one mass of bloom and fruit in various stages.

Fastolf Raspberry has given fruit on the young wood this month of full size and excellent flavour.—W., *Norwich*.

BATTERSEA PARK.—No. 1.

WHEN the ornamental grounds at Battersea Park were first laid out, and that masterly hand which now lies paralysed and helpless gave an impress of such novel grace and beauty, and of such great merit withal, that its method has since been resolved into a distinct system, the fame and merit of the work became so widespread that the name of Gibson was upon every lip, and all were eager to see and learn something of that which all so justly united to praise. This general and enthusiastic admiration was doubtless caused in the first instance by the bold and novel character of the work. To convert a low-lying, flat, unwholesome waste into an ornamental park affording ample scope and liberty for the enjoyment of healthful recreation by all who chose to avail themselves of it, was most praiseworthy, and of immense benefit to people residing in the immediate neighbourhood; but it was the garden, both in its formation and after-management, which soon attracted and fixed the attention of horticulturists. Bold mounds and hillocks clothed with shrubs and trees, and grand masses of rocks, dispersed at some parts and as skilfully connected at others, formed sheltered sunny nooks, enclosing spaces of considerable extent without the slightest formality of aspect, but with graceful flowing lines and sweeping curves on all sides, agreeably intersected by walks; and then when upon these enclosures appeared numerous beds of simple form, in which the denizens of our stoves were seen flourishing with a vigour not often equalled in the stoves themselves, it became evident that a master had arisen among us to whom we must render the full meed of homage and admiration which his works so richly deserved, and of whom we would willingly learn the lessons which he so ably taught.

After the lapse of a few years the question naturally arises, How has the work stood the test of time? The answer is, Admirably. Battersea grows yearly in beauty; and it is matter for congratulation that the fine appearance of the whole of the gardens and park this season affords ample evidence that Mr. Roger is indeed an able successor to Mr. Gibson. Yes, the subtropical garden at Battersea is in great beauty this season; the beds are well filled, the plants are in perfect health and in full vigour; but what to my mind is of even greater importance is the exceedingly good taste in which they are arranged. Now, it would serve no useful purpose to describe the arrangement of every bed or group of beds, and I think I shall best serve the interests of your readers by confining my report to the most remarkable beds—to those arrangements which amateurs, and therefore gardeners generally, may hope to imitate successfully, and to a descriptive list of new or desirable bedding plants.

On each side of the central river entrance to the subtropical garden there are two pretty arrangements in circular beds of about 6 feet in diameter. The edges of these beds, in common with all the others, have no abrupt ramps, but rise in a softer rounded form to the higher surface of the bed. On these sloping sides of the two beds to which I allude were two rows of *Sempervivum californicum*, with a band of Golden Feather *Pyrethrum* inside, enclosing a couple of *Alternanthera amara*, out of which springs a central plant of *Yucca recurva*, with five of the quaint-looking *Aloe nitraformis* in the form of a circle equidistant from each other as well as from the *Yucca* and *Pyrethrum*. In the garden, first comes a novel arrangement in the form of a mass of silvery variegated *Geranium*, admirably relieved by a judicious intermixture of small plants of the bright green Japanese *Thujopsis dolabrata*. For edging, this bed has a broad band of succulents, consisting of two outer rows of the flat silvery rosettes of *Echeveria secunda glauca*, to which the next row of *Aloe cymbiformis*, with its green, rigid, erect, and pointed foliage, forms a capital contrast; inside this is a narrow belt of Golden *Pyrethrum*. This was strictly a foliage bed, and as such was very good, or otherwise I would have preferred a neat row of blue to the yellow of the *Pyrethrum*. Another novel bed, which had an exquisite effect, had an edging of *Mesembryanthemum deltoideum* enclosing bands of *Alternanthera magnifica*, *Lobelia speciosa*, and white variegated *Geranium Sylph*, with a mixed centre composed of groups of

golden bronze *Geranium* and some of the bolder succulent forms, charmingly interlaced with the familiar old *Koniga maritima*, with plants of *Acacia lophantha* kept to single stems and springing gracefully upwards some 2 or 3 feet at intervals above the other plants.

Here is another bed, a circle, to which I would particularly call the attention of amateurs. Its edging was also of succulents, consisting of two rows of the pretty *Echeveria pumila*, then one row of the very distinct and striking *Aloe attenuata*, with thick, erect, sharp-pointed green leaves, thickly spotted with small white protuberances; then two rows of the indispensable Golden *Pyrethrum*, two rows of the very fine grey-leaved *Cineraria maritima compacta*, with a grand central mass of the bright crimson *Coleus Verschaffelti Improved*. This bed in the exquisite neatness and evenness of its surface has been brought to a pitch of perfection that is absolutely wonderful, not a leaf appearing to be misplaced, nor was the slightest indentation or irregularity visible upon the surface. Here, again, are a pair of circular beds with a precisely similar arrangement in both, and placed as they are at the two extremities of various beds of tall and stately plants, they have a charming and striking effect that is admirably in keeping with the important position assigned to them. The edging of these beds was composed of three rows of the alpine *Sempervivum montanum*, a hardy and very beautiful variety, having the foliage disposed with such precision that each plant presents the appearance of an exquisitely neat rosette. These three rows formed a somewhat broad and conspicuous band, which was separated from a circle of *Kleinia repens* by another of the very beautiful Hungarian *Sedum glaucum*; inside the *Kleinia* is a broad band of the beautiful golden-variegated *Coprosma Baueriana variegata*, containing some narrow oval-shaped patches of *Alternanthera magnifica* disposed all round at regular intervals; then comes a row of the grey-leaved *Centaurea compacta*, enclosing a fine central mass of pink *Geranium*. These two beds are in such excellent taste, that I heartily commend them to the attention which they merit. I did not learn the name of the *Geranium*, but would recommend Pearson's Florence Durand as one of the best pinks I have seen this season.

In striking contrast to such beds I may take one of an oval form containing a carpet of scarlet *Geranium*, out of which spring four huge plants of *Wigandia caracasana*. This central mass was enclosed by a band of *Funkia subcordata* and *Chamaepeuce diacantha*, with an edging of *Sempervivum californicum*. Such combinations of a few simple plants are within the reach of most persons wishing to form a conspicuous group in any quiet, sheltered, sunny nook. The *Wigandia* has a most stately appearance, and the contrast of the spiny-leaved *Thistle* against the dark green foliage of the *Funkia* is very effective. In another oval there was the best example of a band of *Echeveria secunda glauca* I have ever met with; it consisted of three rows of small even-sized plants placed so closely together as to cause the leaves to turn upwards with a pretty and striking uniformity. Inside it was a band about 6 inches wide of the bright-coloured *Alternanthera magnifica*, behind which came *Lonicera aureo-reticulata*, rising abruptly about 9 inches in the form of a hedge, enclosing a central mass kept to a uniform height with it of the pretty *Vitis heterophylla variegata*, out of which at intervals of 2 feet spring fine plants of *Grevillea robusta pyramidalis*. By the use of plants of graceful habit as the *Grevillea*, not only is all heaviness of appearance avoided, but a high finish is imparted such as could be obtained in no other way. Mixed beds are a severe test of skill and good taste. Of many fine and very successful examples here I may select a pair of circular masses, containing a large central group composed of *Cannas*, Variegated Maize, and *Gladioli*, surrounded by bands of yellow *Calceolaria*, pink *Geranium Fairy*, with an edging of the huge-leaved *Sempervivum ciliare*, the plants of which were quite a foot apart, and yet the foliage had met and intermingled. *Cannas* predominated in the centre, with just enough Maize and *Gladioli* to light-up and relieve it in the best way. There was very little bloom upon the *Geraniums* and *Calceolarias*, and their growth had become wild and mingled, but to my mind the effect in this particular instance was much better than if they had been laden with the brightest flowers or kept strictly to a formal outline.

But my report grows beyond the bounds of a single paper; and as there remains much which cannot be passed over—much that is alike instructive and interesting—more lovely combinations which fully exemplify the power, grace, and

beauty of those deep rich tones, and softer shades of colour, of which I have so long been an earnest advocate—new plants that are little known, and among which lovers of the flower garden will find such varied beauty and sterling merit as will in reality create an *embarras de richesses*, I must defer the remainder till next week.—EDWARD LUCKHURST.

COMPARATIVE GROWTH OF TREE FERNS.

The following paper on the comparative growth of tree Ferns, read by Dr. Moore of Glasnevin at the recent meeting of the British Association at Belfast, will not be without interest now that indoor ferneries are getting so much in vogue, and tree Ferns so much in request for them:—

Considering that well-authenticated data concerning the nature and rates of growth of tree Ferns would possess a certain amount of interest, I have arranged some notes made from time to time on this subject on kinds which have come constantly under my observation. At the beginning of the period I purpose to review there were only very few of those beautiful plants introduced to Europe, and even yet the number cultivated in collections is few compared with those which are now known and described. The idea which is generally entertained concerning those plants is that they grow very slowly, and that the stems of them, which are brought to this country from their native habitats, must have taken a great number of years to attain to the heights of 10 to 12 feet, which are about the largest sizes that are introduced. I have, however, been able to prove that the growths of several of the kinds are by no means so slow as they are supposed to be. We have grown at Glasnevin one species from a spore to a height of 10 feet in less than twenty years. It was, however, one of the most robust and quickest-growing among the Australian and Polynesian species, the *Cyathea medullaris* (Swartz). When the late Dr. William Harvey visited some of the Polynesian Islands in 1855, he sent to Glasnevin a small packet of the spores of that Fern, or rather the variety of it, which differs from the normal New Zealand form in having more slender fronds, with their ultimate pinnae more divided, along with several minor differences, which have led authors to consider it a distinct species from the New Zealand plant. It is the *Cyathea Mertensiana* of Bongard, which the late Sir William Hooker, in one of his last works, "*Synopsis Filicum*," treats as a mere variety, differing slightly from the normal type.

A few plants were produced from the spores sent, one of which was grown on as rapidly as possible until 1872, when it had attained a stem 10 feet long in seventeen years. At this period of its growth, owing to some inexplicable cause, it turned sickly, and gradually dwindled away until it died during the present year. There is yet a fine example of the New Zealand form in the Glasnevin collection, which is historically interesting, from being one of the first batch of seedlings of this species raised by the late Messrs. Loddiges of Hackney, about the year 1844. Another of the same lot perished in the conflagration which took place at the Crystal Palace a few years ago. I have no exact note of the time it came to Glasnevin, but suppose it must have been in 1845, when it was very small. It is now a noble-looking Fern, with a strong stem 11 feet high, and fronds from 8 to 10 feet long. These examples afford us a tolerably correct idea of the sizes the stems of this species attain within thirty years. The next species I have reliable information on is that which is generally known in collections as *Alsophila excelsa* (R. Brown), but which I have reason to suspect is *Alsophila Cooperi* (Hooker). There are certainly two very distinct species in the Glasnevin collection under the specific name *excelsa*, the common Australian kind, and that from Norfolk Island. The latter was grown from spores collected by the late Mr. John Veitch, taken from plants growing on Norfolk Island, and there are also plants in the same collection raised from spores taken from the fronds in the Kew herbarium, from which the late Sir William Hooker described his *Alsophila Cooperi*. I can see no difference between the latter and plants sent from Australia by my brother, Mr. C. Moore of Sydney, as *A. excelsa*; but there is a great difference between them and the Norfolk Island plants brought by Veitch, which may be the true *A. excelsa* of Brown. The first plant of the Australian kind was sent in a Wardian case to Glasnevin in 1850, when it had no woody stem, and the fronds were only about a foot long; it has now a beautiful clean stem, nearly 12 feet in height under the fronds, which it has made within the last twenty-four years. I have also been able to observe the growth of *Dicksonia antarctica*, from a seedling upwards

to a rather large stem. The plant was obtained in 1840, when it was only about 8 inches high, including fronds; and now it has a strong thick stem, fully 5 feet high from the surface of the tub in which it grows to where the head of fronds is. These instances, therefore, show that some of the Australian and Polynesian kinds of tree Ferns make their stems quicker than has generally been supposed to be the case. There are, however, others of them which, so far as my experience concerning them extends, grow at a much slower rate. One healthy plant of *Alsophila australis* (R. Brown) at Glasnevin was obtained when a seedling in 1850; and although it has continued strong and healthy ever since, the rhizomatous stem is only now taking an upright direction. Another plant of the same species, which has been cultivated nearly as many years, has only begun to form an upright stem lately; and it, too, has continued healthy throughout. A further instance is afforded of the slow progress many of those plants make during the earlier years of their growth, from a plant of *Cyathea dealbata*, which was obtained in 1855, and has grown vigorously ever since; yet the woody stem has only begun to form within the last eighteen months. Those, and other similar examples, lead me to believe that many kinds of tree Ferns make slow progress until their stems form and take an upright position; after which they grow much faster, until they attain a height of 12 or 14 feet, when the growth becomes slower and more consolidated. The observations I have had opportunities of making on South American tree Ferns are confined to a few species.

During the year 1858 the Hon. Judge O'Reilly, then residing in Jamaica, sent us from thence small plants of *Cyathea arborea* (Smith), and *Cyathea aculeata* (Willdenow), in a Wardian case, when they were without hardened stems. They soon began to grow vigorously, and the former has now a clean stem 13 feet high, the latter has one 5½ feet high, which they have made in sixteen years. Examples of the slow increase in height of Fern stems after they attain a certain height have been afforded by both Australian and South American kinds. Among the latter I may mention a fine plant of *Cyathea serra* (Willd.), which came to Glasnevin in 1862, from Lady Dorothy Nevill's collection at Dangstein, when it had a stem nearly 15 feet high. It has continued in good health ever since, but it has hardly increased 3 feet in twelve years. Among the New Zealand kinds, fine plants of *Dicksonia squarrosa* (Swartz), and *Cyathea dealbata* (Swartz), were obtained in 1868, with stems 6 and 8 feet high. They have both continued in good health ever since, yet their stems have scarcely increased a foot in length in six years. To contrast with these, I may mention a plant of the beautiful *Cyathea princeps* (J. Smith), which has made a stem nearly 7 feet high within fourteen years.

The foregoing observations have been made upon plants growing in conservatories to which the public are daily admitted, and, consequently, the atmosphere must necessarily be kept in a much drier state than is favourable to the healthy development of those plants. I have the experience of some fine examples of several of them which are growing in Dr. Hudson's splendid fernery near Dublin at present, and also those of Mr. Bewley's, where in both cases the atmosphere is kept close and moist, and with more shade, under which *régime* they make quicker growth in a given time than they do in the drier and more exposed conservatories at Glasnevin. The foregoing notes have not, however, been arranged for horticultural purposes, but simply to afford some reliable data on the progress of the growth those plants really make, about which one hears so many mythical conjectures respecting the great age of their imported stems. I shall, therefore, not enter farther on the horticultural consideration of the question; but, before concluding, I may state my belief that one-half, at least, of the many fine examples which have been imported during the last twenty years or so have perished, owing to their being too freely exposed at first, and placed in situations unsuited for them. If they once get thoroughly checked by being too dry at the roots or stems, they seldom recover, but gradually lose their fronds and die off.

In summing-up these brief observations, I have first to state that some of the kinds of tree Ferns grow with greater rapidity, and form their stems in a much shorter period than is generally supposed to be the case. Secondly, After they attain a certain height, the scrogeous buds are formed much closer together, the one above the other, than they are lower down on the stem, hence their elongation is much slower. Thirdly, Some of the sorts which at first form short rhizomatous stems, before they

take an upright position, require a considerable number of years to perfect the early part of their growth; but after the stem has been formed, and an upright position taken, the growth is much quicker and the elongation advances rather rapidly, compared with what it did while the stem remained in a rhizomatous state.—(*Irish Farmers' Gazette*.)

FLOWERS FOR OUR BORDERS.—No. 40.

ABELIA UNIFLORA.—LARGE-FLOWERED ABELIA.

OUR scientific botanists are not, it must be admitted, always happy in their choice of names for the various novelties brought under their notice, and the *Abelia uniflora* is a case in point. Its specific designation, *uniflora*, would, of course, suggest the idea that the flowers were produced singly, or but one on each footstalk; it appears, however, that the peduncles



Fig. 80.—*Abelia uniflora*.

are generally two, and not unfrequently three-flowered, as an inspection of our figure will show.

It is an evergreen shrub of somewhat slender habit, the branches partially decumbent. The leaves are broadly lance-shaped, pointed, dark green on the upper surface, but pale beneath. The flowers are produced from the axils of the leaves, and, as already stated, vary in number from one to three on each peduncle. The corolla externally is white tinged with pale purple, with a yellowish throat, and resembles in its form that of many plants of the order Scrophulariaceæ, especially some of the *Pentstemon* family.

It is, however, a member of the Honeysuckle family (*Caprifoliaceæ*), in which small order it is closely associated with the handsome *Diervillas*, now so common in gardens, and better known under their early name of *Weigela*. It is one of the numerous introductions of Mr. R. Fortune from China, by whom it was sent some twenty years since to Messrs. Standish and Noble, of Bagshot.

Its cultivation is unattended with any difficulty; it thrives in peat and loam, and may be increased by cuttings of the half-ripened wood; like the other *Abelias*, it is benefited by occasional "stopping." In the open ground it flowers about July.

The *Abelias* are named in honour of Dr. Abel, a physician who accompanied Lord Amherst on his memorable embassy to China.—(*W. Thompson's English Flower Garden, Revised by the Author.*)

PREFERABLE STRAWBERRIES.—A correspondent asks for the experience of others as regards Dr. Hogg. I grew it several

years next to British Queen, but finding no superiority, not even in hardiness, I have discarded it. In selected lists I miss *Myatt's Filbert Pine*. This I have found better than *Pro-more Late*, though it has two defects—1st, it is loth to throw out runners; 2ndly, its fruitstalks require support.—G. S.

NOTES AND GLEANINGS.

At the Botanic Garden, Oxford, the Mexican *DASYLIRION ACROTRICHUM* recently threw-up a flower stem which, when 12 feet high, grew at the rate of 6 inches in twenty-four hours. *Nelumbium luteum* (the Sacred Bean) is reported this season as producing perfect seeds.

—THE *Building News* says that "the Pottery Tree of Para is one of the curiosities of Brazil. The stem does not exceed a foot in diameter, and it grows to the height of 100 feet. But the peculiarity of the tree does not consist in its configuration, but in the nature of its wood and bark, which contain so much silica (pure flint) that they are used by potters in the production of earthenware vessels. The bark contains more silica than the wood, and in preparing the bark for the potters' use it is first burnt, and the residuum is pulverised and mixed with clay. An equal quantity of the two ingredients produces a superior ware. The fresh bark cuts like soft sandstone, and when dried it is brittle and difficult to break." We readily believe the statement, for chemical analysis has shown that the outer bark of the Bamboo contains more than seventeen per cent. of silica.

—THE collection of Orchids which belonged to the late Bishop of Winchester, Dr. Sumner, and two other collections, were sold on the 17th and 18th inst. by Mr. Stevens at his rooms in King Street. There were 518 lots, and they realised £612. *Dendrobium glumaceum* was sold for £14 3s. 6d., and *Dendrobium filiforme* for £25 4s.; *Angraecum eburneum superbum* for £24 3s., and *Laelia anceps Dawsoni* for £17.

—AN "Annuaire de l'Horticulture Belge" is announced as soon to appear.

—THE first FUNGUS EXHIBITION HELD IN SCOTLAND, was opened in Aberdeen on the 18th inst. The idea of the Exhibition was first suggested by the Rev. Mr. Ferguson of New Pittligo, in the "Scottish Naturalist" for April. The suggestion was readily taken-up by fungologists and men of science, and the result was an Exhibition which gentlemen entitled to speak with authority say was never equalled in this country. The specimens numbered about seven thousand. Almost every county in Scotland made large contributions, while England and Wales sent a number of exhibits. In fact, almost every fungologist in Britain contributed specimens. A considerable proportion of the Fungi belonged to the larger classes, such as *Agarici*, *Boleti*, *Polypori*, &c.; but there were also large collections of microscopic Fungi, and very important additions to the British flora. Several species of Fungi new to science were exhibited, and some splendid specimens of *Sparassis*, which is very rare, were to be seen. Several fine specimens of *Fistulina hepatica*, *Polyporus sulphureus*, and *Phlebia radiata* were much admired. There was a specimen of *Helvella gigas* from Heathcot, near Aberdeen, a species only once before known to have been found in Britain. Among the edible Fungi was an enormous specimen of *Lycoperdon giganteum*, which had been gathered at Fetterneer, in the north of Scotland, numerous specimens of *Cantharellus cibarius* and *Boletus edulis*. Several specimens of fossil Fungi, which are very rarely found, were exhibited. An excellent collection gathered on Moncreiff Hill, and sent by Sir Thomas Moncreiff, included a fine specimen of *Sparassis crispa*. Another prominent specimen of the same was included in a valuable collection from Huntly Lodge.

THE POWDER-WINGED MOTH.

ALEYRODES PROLETELLA.

THE insects belonging to the genus *Aleyrodes* are curious little creatures, occasioning some perplexity, not only to the gardener, but also to the entomologist, by the appearance they present. Though often called moths, as above, they are also called "flies" by some folks, while others have confused them with the aphides. In truth, however, we might say they are "bugs" of a sort, since they belong to the order Hemiptera, though they fall into that section which comprehends the Psylla and the aphides, and are no very distant relatives of the scale insects or mealy bugs. The perfect insects of *Aley-*

rodes must be acknowledged to be pretty objects as they display themselves on the leaves when the day is calm, their beauty being brought out fully to view by a hand-magnifier. The gardener, however, is aware that if not so troublesome as the aphids, they are no friends of his, and their minute size makes it more difficult to deal with them. Though they resort at times to the lofty Oak, they do not disdain under certain circumstances the culinary Cabbage, and various plants and trees afford them a comfortable abode besides these extremes. But as compared with the abundant aphids, the Aleyrodids are rather uncommon insects, though in this season I have seen many parties of them about, for they delight to associate in groups on the "happy family" principle. They are kept under by parasitic enemies. A *Cynips* kills many of them, and also an *Acarus*. Nor are these all, we may presume; at least it is only in that way we can account for Aleyrodes having fewer representatives than aphids, for if let alone it has been found by an ingenious calculation that a father and mother can in one year boast of a posterity of two hundred thousand individuals, and, according to the observations of Reaumur, these insects can bid defiance to the cold, and go through all their changes in winter as in summer. He found larvæ and pupæ, as well as imagos, in December and January; but I do not think in Britain it has been their usual habit to proceed beyond the end of autumn in their round of life, when they break off and the imagos usually die, and as it would seem the species is continued into another year by eggs that are hatched in the spring. It is possible that the increasing mildness of our winters may make this and other insect pests much more lively than they used to be.

Aleyrodes proleptella, the Cabbage visitant, and the best known of this small group of insects, is about one-eighth of an inch long in its imago state. Without a very minute examination we can see that this insect has not the paps or abdominal appendages noticeable in the aphid tribe, though the grey or powdery appearance causes a marked resemblance to some species of that division of the Homoptera. An Aleyrodes has wings that are almost devoid of nervures, the fore wings having but one passing along the centre; the hind wings are small in proportion. These are all placed in a triangular form when the insect is in repose, and besprinkled with a powdery substance, as also are the rather long black legs. Whether this serves to protect the Aleyrodes from the weather, or deters some of its enemies from approaching it, is to be regarded as doubtful; the powder may answer both ends, and it is produced in quantity sufficient to be not only on but about the insect as it moves along the leaves, which it does with great deliberation. One peculiarity observable in the head is that the eyes are as it were divided in the middle, making it look as if it possessed four of these organs. The familiar "whirl-wig" beetles (*Gyrinus*) have eyes of similar aspect.

The juices of plants are obtained by means of a rostrum or sucker, which is folded beneath the body when not in action. Though *A. proleptella* has been seen on different plants throughout the summer and autumn, it is in June and July that the females have been detected in the act of egg-laying, the patches containing about a dozen, environed of course with the powdery exudation, but not usually covered by the dead body of the parent, as in the scale insects. The young Aleyrodes, however, almost immediately after it bursts the shell grows a sort of scale over itself, under which it advances in a very tortoise-like way along the under side of a leaf, where it might easily escape notice as seeming an object devoid of life. This larva has a short rostrum like the parent, and six pectoral legs. There is a true pupa state intermediate, when the Aleyrodes is attached to the leaf without moving, and covered by the rejected skin of the larva.

The extirpation of the species of Aleyrodes is sometimes difficult, because the plants they are found upon cannot frequently be fumigated. Hand-picking of the infected leaves, unless done by a practised hand and eye, results in the missing of many of them; fortunately these insects are rather disfigurers of plants than serious garden pests.—J. R. S. C.

THE SUGAR CANE

(SACCHARUM OFFICINARUM).

If we were asked which article of food is the most generally approved we should name sugar. In all ages, in all countries, and at all periods of life saccharine substances have been and are desired. One of them was of the two products of the Promised Land held out as specially acceptable to the Israel-

ites: it was to be "a land flowing with milk and honey." There is reason for believing that the Sugar Cane became known to them, for Jeremiah and Isaiah both speak of "the sweet Cane from a far country;" and they probably received it from the same country that afforded them their favoured spice, Cinnamon—namely, the East Indies. The very name Cane is of Hebrew origin. *Kaneh* is the Sugar Cane in that language, whence came the Latin *Canna*, and thence our English name.

Nearchus, Alexander the Great's admiral in the eastern seas, brought the Sugar Cane thence to Europe in the fourth century before the birth of Christ; and three centuries later Varro speaks of an Indian Cane of large size from which was "expressed a liquor sweeter than honey." Theophrastus mentions it as "the honey in reeds." Piny also describes sugar, and says the best is from India. These authorities convince us that the Sugar Cane is a native of the East Indies. From thence, as we have noted, it was brought to Europe, and seems to have been made known to England by the Crusaders. The Cane was cultivated in countries adjacent to the Holy Land, and the cultivation lingers still in Sicily and Andalusia. Our word sugar is of Arabian derivation, for in Arabic it is *suechar*.

There are three varieties of the Sugar Cane cultivated in India. 1, The Purple-coloured, which grows well on dry land. 2, The Pale Yellow, requiring richer soil; this Cane is sold in the Calcutta bazaars and eaten raw. 3, The White Cane, preferring a swampy soil, and by far the tastiest variety.

The China Sugar Cane was considered by Dr. Roxburgh a different species, and was named by him *Saccharum sinensis*. There are also in various parts of India varieties known by the local names of Puttaputti, Maracabo, &c.; but the writer, when in India and seeing the specimens, thought the distinctions trivial.

The ryots consider the Sugar Cane, and also the Beet Plant, in a sacred and superior light; they even place it among the number of their deities. The first fifteen days of Koar (or September), termed Peetereputch, are devoted by the Hindoos to religious ceremonies and offerings on account of their deceased parents, relations, and friends. Such of them as have been bereft of their parents refrain from every indulgence during the said period, as being the season of mourning and mortification; and as they deem the performance of the higher rites of their religion (such as making offerings of sweetmeats, cloths, jewels, &c., in the temples of their several deities, and also the sacrifices denominated Hoom-jugg, &c.), a pleasure and enjoyment, these are likewise carefully avoided.

The sacred appellation of the Cane amongst the ryots is *Nag' bele*; and hence, for the reasons above stated, the immediate owners of the Cane plantations sedulously refrain from repairing to or even beholding them during the continuance of the Peetereputch. On the 26th of Cartick (or October), termed by the ryots *Deuthan*, they proceed to the fields, and having sacrificed to *Nag' bele*, a few Canes are afterwards cut and distributed to the Brahmins. Until these ceremonies are performed according to the rules of established usage and custom, no persuasion or inducement can prevail upon any of them to taste the Cane, or to make any use whatever of it.

On the 25th of Jeyte (or May), termed the *Desharah*, another usage is strictly adhered to. As it is usual with the ryots to reserve a certain portion of the Canes of the preceding year to serve as plants for their new cultivation, it very frequently happens that inconsiderable portions of Cane remain unexpended after the said cultivation has been brought to a conclusion. Wherever this happens to be the case the proprietor repairs to the spot, and having sacrificed to *Nag' bele* (as before stated), he immediately sets fire to the whole, and is exceedingly careful to have the operation executed in as complete and efficacious a manner as possible.

The cause of this extraordinary practice proceeds from a superstitious notion of a very singular kind. The act is committed from an apprehension that if the old Canes were allowed to remain in the ground beyond the 25th of Jeyte they would in all probability produce flowers and seed, for the appearance of these flowers they consider as one of the greatest misfortunes that can befall them.

Although the Sugar Cane is a native of the East Indies, and thence became known in Europe, yet we believe it is a native also of South America. Sugar is chiefly imported into this country in the state of raw sugar, and molasses or treacle. From the molasses a considerable quantity of crystallised sugar is obtained in this country, and the uncrystallisable portion then remaining constitutes what is called treacle. Raw

sugar is purified by the process called sugar-refining. This process consists in dissolving the sugar, neutralising the acid with lime, boiling it with bullock's blood or a substance called finings, consisting of hydrate of alumina and sulphate of lime ;

passing the syrup through a stratum of animal charcoal to remove the colouring matter, concentrating the decolourised syrup in a vacuum pan, putting it to crystallise in conical moulds, and removing the last portions of colouring matter by



Fig. 81.—THE SUGAR CANE.

allowing a solution of pure sugar to percolate through the conical masses or loaves.

Gerarde tried to grow the Sugar Cane in his Holborn garden, but he stated in 1597, "Myselfe did plant some shootes thereof in my garden, and some in Flanders did the same, but the coldnesse of our clymate made an ende of mine, and I thinke the Flemmings will have the like profite of their labour."

The first sugar refinery of which we have any notice was at Dresden, where it was in 1597, and the refined sugar was called "blanche powdre." Yet loaf sugar was known much earlier, for in the town records of Lyme, in Dorsetshire, one of the events of 1553 was presenting to Mr. Waldron of Bovey House a sugarloaf weighing 7 lbs., costing 13*d.* per pound, equal to more than 3*s.* of our present currency. Sugar was

then imported by the Bristol merchants from St. Lucar in Spain.

1872 there were imported into the United Kingdom of sugar unrefined, 13,892,560 cwts.; of refined sugar, 1,787,515 cwts.; and of molasses, 698,590 cwts.

THE CARPET AND TAPESTRY BEDS AT HAMPTON COURT.—No. 2.

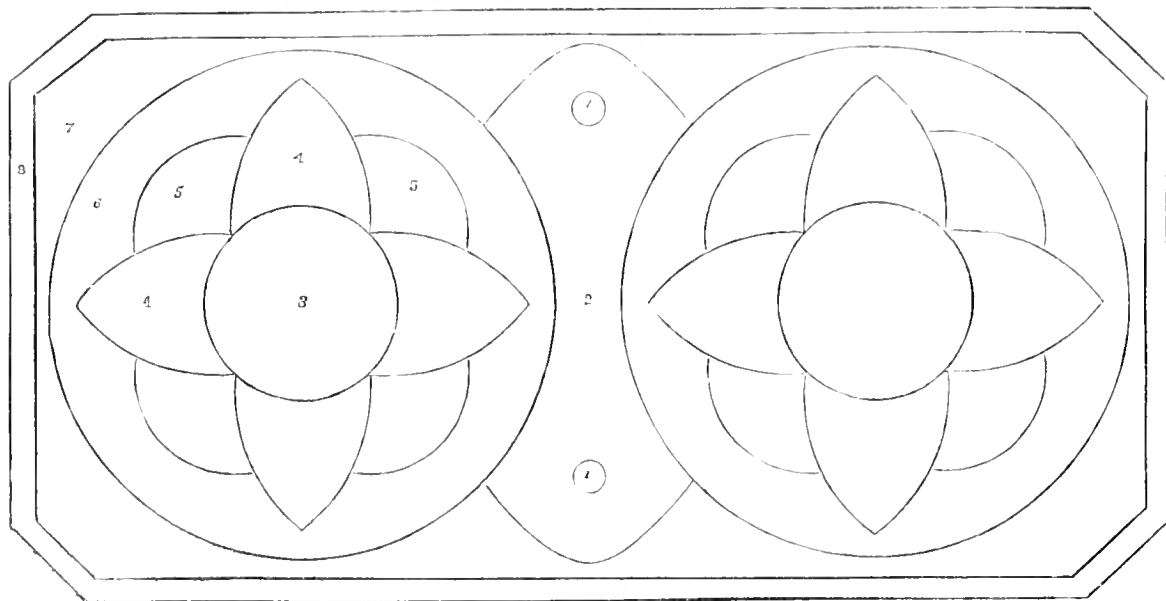


Fig. 82.

- 1, *Agave americana* variegata, young plants.
- 2, *Tradescantia zebrina* argentea.
- 3, *Chamaepeuce diacantha*, on a bottom of *Tradescantia zebrina* argentea.
- 4, *Alternanthera magnifica*.

- 5, *Pyrethrum parthenifolium* Golden Feather.
- 6, *Lobelia pumila* grandiflora.
- 7, *Cerastium tomentosum*.
- 8, *Sempervivum californicum*.

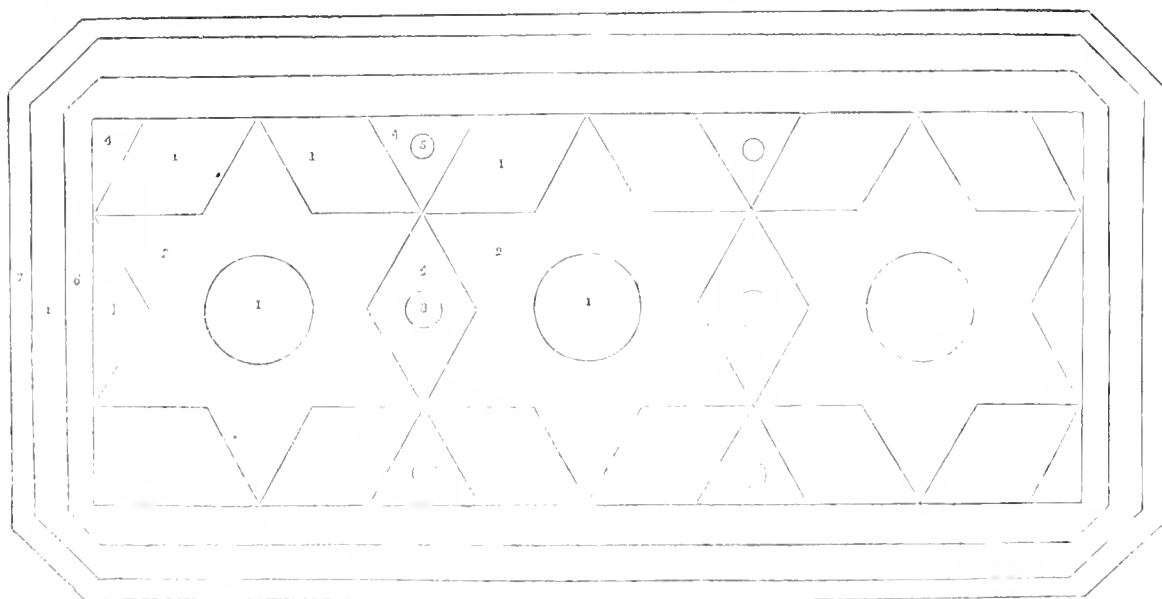


Fig. 83.

- 1, *Alternanthera amabilis*.
- 2, *Pyrethrum parthenifolium* Golden Feather.

- 3, *Agave americana* variegata, young plants.
- 4, *Lobelia pumila* grandiflora.
- 5, *Echeveria metallica*.

- 6, *Mesembryanthemum cordifolium* variegatum.
- 7, *Echeveria pumila*.

FLORICULTURAL CERTIFICATES.—At the last meeting of the Royal Horticultural Society's Floral Committee at South Kensington Mr. Fraser gave notice he should propose at the next meeting, October 7th, that something should be done to give first-class certificates more weight than has hitherto been the

case, more especially with plants that gain a first-class certificate by a unanimous vote and are of superior merit. There cannot be a doubt that some new method is much needed; and as the subject is of great importance to the horticultural world, I trust the Committee will meet in full force at the next

meeting to discuss so really important a subject.—E. BENNETT, *Hatfield, Herts.*

PEAS FOR SUCCESSION.

IN variety and number Peas are absolutely bewildering. Annually the number is being increased by new ones which the descriptions inform us are great advances on older kinds, casting over them a gloom which the raiser and vendor trust, no doubt, will prevent the keen eye of purchasers penetrating. If there is anything so likely to keep the new ones in favour, it is the extravagant price at which they are "let" out. Fancy having to pay 5s. for a half pint of Peas—a pound per quart! and then only to grow them a year for seed; living in expectation, feeding the eyes a year, the teeth being kept well-nigh two years watering, in the hope of determining some time what they are like. The new things coming-out annually, and certificated as they are in most instances by the Royal Horticultural Society, are enough to make anyone's teeth water; but the price is such as to make many an amateur of limited means examine his pockets in the vain search for the needful. Considering the small quantity and the price, are we to wonder that the new things are a long time in supplanting the old? and when we add the faint hope of testing the quality the first year, as Peas must, if to be had in quantity the next, be retained for seed, who can doubt the amateur's judgment in abstaining for a year or two from purchasing the novelties? In a year or two it will be known what they are, the price per quart will not be more than an eighth or tenth what it was the first year, and I might as well save myself the price of seed, the ground, and the annoyance of seeing but not being able to come to a satisfactory practical test of their palate-satisfying qualities. We do not question the propriety of such reasoning, it is every-way commendable in those of small means; but were all to be of their mode of thought, it is certain the novelties would not come nearly so thick and fast. The rage for novelties is so great, that high as is the price asked for them, the supply is not equal to the demand. Everybody in these times is so desirous of not being behind in the march of progress, that at any sacrifice he must have the things which it is well known always lead. We cannot, however, be in the world and not in the fashion; we may, however, depend upon this—viz., whether we are in or out of the world of fashion, we shall find that esteemed most valuable and best which affords the most lasting enjoyment, and this is as applicable to the appetite as to any of the senses. It is this which induces many to cling to old things which have given long unqualified satisfaction; their ideas are wedded to "never-will-be-beaten," which so blinds some that they (from their faith being pinned to old things), do not set a proper estimate upon things of value coming-out yearly. In this way they lose or deprive themselves for a long time of things of merit, which it must be acknowledged we have in new Peas, as we have in other subjects. I do not think anyone would care to return to the Early May for a first early, Emperor for second, the Marrows and Marrowfats (Wrinkled Marrows), for main crops. Talk of old things being best! always, please, except Peas. Dr. Hogg tells us in the "Year-Book," 1873, what all the known kinds of Peas are. I hope to see every kind of vegetable gone through in the same way. It is the best means to an end, the selection of the most productive and useful sorts.

I am led to these remarks from a reflection that I have grown a great many sorts this year—in fact, every year since I came to make out a seed order (over twenty-one years), and have a result just the same as I knew an old gardener had then, and said he had had every year for nearly sixty years previously—namely, a dish of Peas without fail every day from the early part of June to the early part of October, and occasional dishes in May and November, rarely in December. The kind grown then was Dillistone's Early. The fifty-years practitioner had to give way to fashion, the Early May was given up. Just a row on a south border that might be 50 yards long was considered enough. Early Emperor was the mainstay for early Peas; Early Green Marrow to succeed; Woodford Green Marrow, Dwarf and Tall Marrows for successional and late crops, or six sorts in all. Peas there were every year in plenty, and obtained as easily as possible. Well-manured ground, well-dug, and of light soil was chosen for early crops, also warm spots; trenching or deep digging and throwing-up roughly in winter being adopted for the summer crops. The early sorts were sown November 5th to 10th, again the first mild weather in or after February, and when these appeared above ground the earliest

were sown again, and at the same time the second earliest. The next crop was the second earliest, and then a crop of each, and afterwards the main crop, one crop succeeding the other regularly every ten days up to July, the last sowing being made in the first week. As to culture I do not find we have advanced, but I should be glad if any correspondent having a Pea named Salter's Tall Marrow would have the kindness to send me a few seeds through the Editors. This is a tall Marrow (wrinkled slightly), which my memory tells me is not surpassed by any in cultivation, either in cropping or quality.

Now this old man was everlastingly running down the new and praising sky-high the old. Wonder it was he every year ordered the new things. He knew very well (before he had them, mind) they were no use; but then they did to show visitors, to send in whenever anyone staying at the hall lauded up some new kind, insinuating that the old sorts were nowhere in comparison, when he would send in the actual thing unknown. All the new things were sent-in in that way, and if they were not noticed he used to say they would do if they cropped as well as the old, or if better, well—we must try them again; but if there was the least complaint either from cook or high quarters, no matter what the cropping was, they were thrown overboard. Many a time have we extolled a new kind not known at table, not even by those loud in its praises. "Keep a keen eye upon that which is most esteemed at table, and grow those things which serve it best and longest."

It is very interesting, certainly, to test new varieties, but they take up room, and stop very few gaps in the vegetable supply. Good as are the new things it is long before they supplant the old. Of Peas we have over 110 kinds without synonyms, and out of this number we can with at most half a dozen meet every demand. We want early Peas, second crops, and later crops.

Early kinds were for many years restricted to the small white sorts; but of late years we have had some valuable additions in blues and greens, both smooth and wrinkled. Ringleader, the true Dillistone's Early, is unquestionably the earliest, or was—I say was, because I had it surpassed this year by Blue Peter, but under rather unequal conditions. Ringleader, Emerald Gem, and First and Best were sown on a south border January 13th, ends of rows north and south, and on January 28th Blue Peter and Little Gem 18 inches from the wall and parallel to it. Blue Peter was ready at the same time as Ringleader (June 23), the first dish, in fact, taken off Blue Peter as the pods of Ringleader were in pod and pea comparatively small. Emerald Gem was fit to gather at the same time. Little Gem, though a Pea of very good quality, is simply nowhere; I had it seven to ten days after Blue Peter. I had the last in pots sown January 15th, and had the first dish April 21st, growing them in the second Peach house. Little Gem, sown at the same time in pots, was nowhere. First and Best was a week later than Emerald Gem and Blue Peter, the last being grown under slightly advantageous circumstances; but First and Best is a much better cropper. Blue Peter grew with me 2 feet high, and was wonderfully prolific. In pots it was dwarfier than Little Gem.

As a first early I shall this year give my vote for Blue Peter, 2 feet, for warm positions, for which its height admirably adapts it. For first and second early Alpha, a blue wrinkled sort, 4 feet; general crop Fillbasket, a grand cropper, 3 feet; Jersey Hero, 3 feet; Best of All, 3 feet; G. F. Wilson, 4 feet; for late, Premier and Ne Plus Ultra. But I have got eight kinds, which I will reduce to six, and in the order of sowing as follows:—

Sow November 5th to 10th, and December same dates, in a warm position, Blue Peter and Alpha.

Sow first open weather after middle of February, Blue Peter and Alpha.

Sow a fortnight after the above crop has been put in, every fortnight up to the beginning of May Alpha, Fillbasket, Best of All.

Sow beginning of May every fortnight up to July 1st G. F. Wilson and Ne Plus Ultra.

Note.—Fillbasket or Best of All to be sown at the same time as the first sowing of G. F. Wilson and Ne Plus Ultra, and Alpha must be sown once when Fillbasket and Best of All are first sown, it being discontinued at the sowings afterwards, as Best of All is in the later sowings.

All are wrinkled Peas except two—viz., Blue Peter and Fillbasket. Neither is so good for flavour as the others, and yet both are grand Peas, Fillbasket especially for cropping, and it will on that account be a great favourite for general growers and market. I take a prospective view, and think we shall

have all we want for early in William I., 3 feet; second early Fillbasket, 3 feet; general crop Best of All and G. F. Wilson, 3 feet and 4 to 5 feet respectively; late crop Omega, 3 feet. Omitting Best of All the four remaining will give us all we need, and yet we may strike out Fillbasket, substituting William I., and we have three kinds of moderate height, not like some which require hop-pole-like sticks, with flavour unsurpassed. Were Fillbasket given the flavour of G. F. Wilson, retaining its height, 3 feet, we should have in William I., Omega, and the one to come perfection in Peas. Another season may upset our ideas, but present experience prompts my considering the above result will be shown.

Tall Peas I have not alluded to. They have as a rule large peas and pods, but they do not give a correspondingly greater yield for the ground occupied. Two rows of Fillbasket may be grown on ground that will only suffice for one of Superlative, and one row has this year given me six times more of Fillbasket than of Superlative. Superlative has never shown merit, and why it should have a first-class certificate, and be in any way commendable beyond its extraordinary pod, is past my limited comprehension. In tall Peas we have some good kinds. Berks Challenge is a grand Pea, Emperor of the Marrows also good, and Ne Plus Ultra is simply unapproached as a late kind; but it will be a great gain if Omega give us the good qualities of Ne Plus Ultra at a height that will only need stakes 3 feet above ground. We shall be able to have two rows where we can at present have but one, and at once get over the difficulty of procuring tree-like sticks, and save much annoyance, as the 3-foot kinds are not so liable to be injured by wind. I had great faith at one time in the tall Peas, but later experience has convinced me that a 3 to 4-foot Pea is in every way more desirable than one of 6 to 7 feet.

The best cropping Peas that I have grown or seen are, for first early, First and Best; second early, Fillbasket, which will answer for main crops as well as Best of All; Jersey Hero (Mammoth Dwarf Marrow) and James's Prolific Late, G. F. Wilson, and Ne Plus Ultra. The last two produce the crop successively, but the others have it nearly all fit to gather at the same time, and are all the more valuable on that account for market, as the ground can be cleared and employed for other crops much sooner than if long in use.—G. ABBEE.

LITTLE HEATH MELON.—I was fortunate enough to win the £5 prize offered by Messrs. Carter & Co., at Bath, in the company of some eleven exhibitors. My opinion of the quality of Little Heath I had perhaps better keep to myself, but I must inform Mr. Meacock, however much he thinks of Little Heath, that his opinion is not a general one; but my Victory of Bath has solved the great problem of pleasing everybody.—R. GILBERT.

NOTES ON VILLA AND SUBURBAN GARDENING.

THE FLOWER GARDEN.—The blooming season is fast passing away, and most plants give signs of the approach of autumn; therefore, in order to prolong the beauty of the flowers as much as possible, every decayed leaf or flower should be taken away, and the beds kept dressed in the neatest manner. In beds where two or more distinct colours are used keep each one to its proper place, and let the outlines of each be regular and well defined. The law, too, which adds so much to the beauty of a garden, ought to be frequently rolled and regularly mown, and it will look as green and fresh as it does in spring.

Finish the propagation of all bedding plants except Calceolarias, which may with advantage be deferred, and use every effort to get them established quickly. It is not well, however, to treat bedding plants of the ordinary kinds too tenderly at this time of the year; if so, they are more difficult to keep through the winter. If any are growing in frames let them have plenty of air night and day, and while the weather is warm set the frame up on something so as to be clear of the ground, that a current of air may pass under as well as above the plants; this prevents the appearance of mildew, which so frequently attacks and destroys Verbenas and Cinerarias, and whenever seen its progress should be arrested by the application of a pinch or two of powdered sulphur.

Carnations that have been layered in the open ground will now be well rooted, and should be separated from the parent plant. The best of them may be potted; the next size may be at once planted out, and the smallest or weakest plants should be put into what is called a nursery bed—that is, pricked-out close together in a somewhat sheltered place where they can have a little protection from cold during the winter. No doubt there are many suburban gardens where this pretty flower would be an acquisition; I will, therefore, enter into some details of its

cultivation. I shall assume as a matter of course that plants have been raised from those which produce the best flowers only. Those that are selected for potting will do well indeed in a soil composed of two-thirds loam and one-third cow manure twelve months old if possible, but if this is not to be had thoroughly decomposed hotbed manure may be substituted; mix all well together in a dry state if possible. The plants will not need large pots at first, probably what are called large 60's, or 34 inches over and about the same in depth, will be the sort required. The plants may be firmly potted, and afterwards transferred to a frame and kept a little close for a few days, which will induce root-action. When they have become so far established, gradually give more air to them, and in a week or two they may have the lights thrown entirely off them night and day. They do not suffer from a little frost, but they ought to be protected in the most severe weather, and kept as dry during winter as is consistent with health. If too damp, mildew attacks and destroys them; therefore at every opportunity air must be admitted, and if possible the foliage should be well dried during the day. The plants will be much benefited by being cleaned two or three times in winter of their decayed leaves, and the soil on the surface of the pot stirred up with a small stick. The ground on which the pots stand should also be stirred and cleared of worms, some fresh coal ashes added, and the plants replaced. I might here mention that all kinds of plants that are wintered in frames should be at times taken out, cleaned, and replaced in a similar manner.

In spring, say about March, the plants may be planted out either in the borders or in a bed by themselves, where they will not fail to create a pleasing feature. The bed should be deeply dug, and if possible some fresh soil added, with good manure; plant them not less than 18 inches from plant to plant, press the soil firmly around them, and water well at all times in dry weather until they flower. Very little attention but that of hoeing the soil frequently to keep down weeds will be needed. When the flower stems show themselves they must be secured to small stakes, otherwise the habit is to be rather loose, and, moreover, the wind plays sad havoc with them when left to themselves. When the buds show themselves prominently the small and ill-formed ones should be taken out, leaving those most promising and perfect. Sometimes, just as they burst into bloom, the buds split down on one side or other, and the flower, instead of being perfectly formed, is ill-shaped, and does not look well; when there is a sign of this taking place a piece of matting or some soft sort of material should be tied round the bud about two-thirds of the way up, which prevents the splitting complained of.

Carnations may be, and are, often raised from seed, but at first there is such a quantity of worthless flowers among them, and this is only seen after much trouble has been spent on raising the plants to the flowering point, that those who want to make sure of a first-rate flower should purchase half a dozen varieties that will be sure to please.

At this time of the year the little *shrubberies* in connection with the garden will need some attention in the way of cutting the gross shoots away so as to keep the plants in shape, though it is not necessary; neither do I like to see shrubs cut out of their natural habit nor trimmed very closely, but if they are not occasionally attended to they are apt to run up high, and leave a nakedness at the bottom which is very objectionable in any garden, especially in a small one where every plant is required to give the best possible effect.

Now is the time also to examine and decide upon those shrubs to be moved where there is overcrowding, and also for the purpose of determining any alteration that can be made for improvement by a re-arrangement.

Roses may still be budded if more are required, but not after the month is out; the buds will no doubt remain dormant through the winter, and shoot with great vigour in the spring. Those who have room may sow a few pots of Mignonette to keep through the winter for early spring-flowering. This plant does not like transplanting, therefore it is best to sow the seed in the pots in which the plants are to flower.

Now is a capital time to have all repairs done that are required upon the greenhouse or any other structure whether large or small, and all painting and glazing completed, so as to have everything in readiness to protect the stock of plants when cold weather comes on.—THOMAS RECORD.

DOINGS OF THE LAST AND PRESENT WEEKS.

KITCHEN GARDEN.

THERE are very few gardens that can be kept tidy all the year round, and the present is the time when otherwise well-managed gardens are apt to assume a somewhat ragged appearance. Weeds grow quickly, and not only are they unsightly, but if not taken off the ground in time they will leave a supply of seeds which will keep the hoes at work all next season. We have been hoeing fruit-tree borders, Sea-kale quarters, Coleworts, sprouting Broccoli, and wheeling the weeds off the ground. The

kitchen garden may be made quite as attractive as any other part of the grounds, but neatness should prevail everywhere. When Cabbages, Cauliflowers, Lettuce, &c., are cut over the stocks should be forked up at once, and carried to the vegetable mould heap; this heap should be in the least frequented part of the grounds, and hidden from sight by a sufficient screen of evergreens. The English Yew, from its dense growth, is perhaps the best subject to plant for this purpose, although Arbor Vitæ, Broad-leaved Evergreen Privet, and any plant of a similar character will answer. The last-named will succeed in almost any soil and situation, and it also grows very rapidly. The vegetable refuse from a large garden accumulates in a year to a very large heap, and where manure is scarce it comes in useful as a dressing either for flower borders or kitchen garden quarters. Our early garden experience was gained in a situation where the gardener could only have manure at the discretion of the bailiff, and nearly all the farmyard or stable manure that found its way to the garden came in the form of horse droppings for the Mushroom house, which, after being spent there, were generally used on the flower beds. In this place every bit of refuse convertible into manure was valuable. A large quantity of leaves raked up in the pleasure ground was added to the heap in the autumn and winter months. A tank which received the drainage of the farmyard was also emptied on the heap once or twice a-year, and though the kitchen garden received scarcely any manure except from this refuse, excellent and plentiful supplies of Potatoes and all other vegetables were produced.

FRUIT AND FORCING HOUSES.

Pine Houses.—It is difficult to say what character of soil is best for potting Pines. We have not been so successful with our plants since a clayey loam which was used for this purpose can no longer be obtained. Our own loam is from a very light sandy soil, and full of fibre; in it the plants grow freely, but the pips do not swell up satisfactorily, which would lead one to suppose that the potting material had become exhausted before the fruit appeared; and yet a very successful Pine-grower told us the other day that the soil he uses is very light sandy stuff. Another successful cultivator pots his plants in peat soil. One thing ought to be noted, and that is that Pines do not show the result of injudicious treatment so readily as some other fruits, but very probably the plants suffer quite as much, and will at last show the result in producing very inferior fruit. We filled one of the beds with loam, to which a sixth part of stable manure was added, and in it the suckers which were potted in August have been planted out. The bed is sufficiently drained, and is also provided with hot-water pipes underneath. Very large Providence Pines, some of them weighing over 15 lbs., were produced at Gunnersbury; the plants were put out in beds, and brick divisions erected between each plant.

Where young succession plants have been newly potted or planted out, it is desirable to shut-up the house early, say 3 p.m.; the thermometer should not fall below 70° at night. In the fruiting house a little air is left on all night both at the front and back.

Peach Houses.—The only attention early houses require is to remove decaying leaves. A good drenching from the garden engine answers two purposes: it removes all loose leaves, and at the same time cleanses those that remain on the trees from red spider and other pests. Late houses are now also destitute of fruit, except some of the latest Peaches. Salway is very well worth growing; it is the latest of the freestones, and though sometimes woolly and deficient of flavour, it never fails to make a good show on the dessert table, the fruit being large and rich-looking. It is not so well adapted for pot-culture as Lady Palmerston, which is also ripe two or three weeks before Salway. Both sorts ought to be grown where fruit is required late in the season. Another variety not so well known as it ought to be is Desse Tardive. This is a finer-looking fruit than either Walburton or Late Admirable, and is rather later.

Mushroom House.—We can go out into the fields and gather excellent Mushrooms just now, and many others can do the same; although the ground is very dry large specimens have been gathered. With an inch or two of rain and mild weather this wholesome esculent would be obtained in quantity from meadows and grass fields. However, there are many places where no Mushrooms are produced naturally. Manure should now be ready to make-up a bed in the house. Our own experience suggests that about a third part should be cow manure, and a little turfy loam added is an improvement. A bed made-up as suggested will not heat violently, and will continue in bearing much longer than one composed only of stable manure. We have had heaps of stable manure, loam, and cow manure in equal proportions that have produced most excellent Mushrooms without any spawn being inserted in the usual way from bricks.

GREENHOUSE AND CONSERVATORY.

The houses which up to this time have been gay with what are termed softwooded plants, are now to be cleared-out for the summer occupants. Old plants of Fuchsias, Zonal Pelargoniums, and indeed the whole section of rapid-growing plants, may be cut-up for the rubbish heaps rather than that the

vineries and Peach houses should be overcrowded with them. These structures have in nine cases out of ten to become store houses for the larger plants that will be required in the flower garden next year, and, being drier, are much better adapted for the plants than low damp pits. It is not safe to allow Heathas, Azaleas, Chorozemas, Statice, or, indeed, any Cape or New Holland plants, to remain out after this, unless they are in a position where a canvas screen can be drawn down over them at night, and to protect them from heavy rains as well; but in any case it is much better to have the plants under the glass. When plants are taken indoors, if a little judgment is not exercised, many of them may suffer, and some severely. Take the Camellia for instance. The plants have been in a shady position out of doors; the weather may have been showery, and the leaves of the plants have been wet night and day; even if no rain has fallen, the leaves are saturated with dew at night. The plants are taken into a greenhouse or conservatory, and if they are in flower little or no moisture is allowed; the atmosphere is dry, even parching. The leaves of the Camellia are dry always. The pots had been standing on the ground, the roots were always cool, which caused the formation of many tender white rootlets. Now the roots are on a dry stage, and surrounded by a dry warm atmosphere, even, it may be, to the extent of injuring the rootlets. The inexperienced cultivator may say, "Yes, that is just the condition of my plants; they were treated as described." Now the plants may show no signs of distress, the leaves will continue green and healthy-looking; but look at the flower buds in a month or so; the outer scales, which should be quite green, are becoming edged with brown, the buds do not swell, and presently drop off. Now, when the plants are taken indoors let the paths and stages be damped in the morning, and should the days be warm with sunshine bedew the plants overhead with a fine syringe. No other plant will suffer so much as the Camellia from the change; but many are attacked by mildew and red spider. Some species of Cape Heathas suffer severely from the former before it is detected; a quick eye is required to discern the evil, and prompt remedies must be applied, dusting with flowers of sulphur for mildew; laying the plants on their sides and well syringing with water will destroy the red spider.

Shaking out and repotting stage Pelargoniums; plants that were growing in 7-inch pots have the balls reduced to be repotted in 5-inch. The pots are well drained, and the potting material is turfy loam four parts, leaf mould one part, and a little rotted manure added to it. Removed Auriculas from a position under a north wall to a frame facing south; the lights are drawn off in the day, but the plants are not exposed to rain after this.—J. DOUGLAS.

GLOW-WORM IN THE NORTH.—I see in the chapter on "Beautiful and Useful Insects of our Gardens," the writer believes the glow-worm to be scarce in the north of England, and not often noticed in August, and quite exceptionally in September. This is not correct for Westmoreland, for here in the lake district we have an abundance of glow-worms, and we very rarely see them before September.—A READER OF THE JOURNAL.

TRADE CATALOGUES RECEIVED.

E. G. Henderson & Son, Wellington Road, St. John's Wood, London, N.W.—*Catalogue of Bulbs, Flower Roots, Roses, and Fruit Trees.*

S. Dixon & Co., 48a, Moorgate Street, London, E.C.—*Catalogue of Dutch and other Flower Roots.*

R. B. Matthews, 65 and 67, Victoria Street, Belfast.—*Descriptive Catalogue of Dutch Flower Roots.*

T. Bunyard & Sons, Maidstone.—*Select List of Dutch Flower Roots.*

John Harrison, Grange Nursery, Darlington.—*Descriptive Catalogue of Roses.*—*Descriptive Catalogue of Fruit Trees.*—*Catalogue of Flower Roots.*

W. Bail, King's Road, Chelsea, London, S.W.—*Retail List of Bulbs and Tuberos-rooted Plants, &c.*

TO CORRESPONDENTS.

* * It is particularly requested that no communication be addressed *privately* to either of the Editors of this Journal. All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably.

BOOKS.—In answer to many inquiries, we can now state that the new edition of Hogg's "Fruit Manual" is passing through the press, and will be published in the course of a few weeks. This edition is very much enlarged, and will be printed on the same sized paper as "British Pomology," or what is technically termed demy octavo.

ACME FRAMES.—If "E. E., Berthamstead," will write to Mr. B. Looker, Kingston-on-Thames, he will receive all the information he requires.

ROYAL HORTICULTURAL SOCIETY (T. B.).—If your employer write to "The Secretary, Royal Horticultural Society, South Kensington, London," and tell his wishes, they will be complied with.

FRUIT SHOWS (An Old Subscriber).—Those at South Kensington, Regent's Park, and the Crystal Palace will be advertised in our columns. All fruit exhibited ought to be grown by the exhibitor. The Royal Horticultural Society's Fruit Show at South Kensington is to be held November 11th.

SEEDLING PEARS (J. Elliott).—The parent tree being grafted on a Quince stock will have no tendency to impart a dwarf habit to the seedlings.

GATHERING PEARS (W. J.).—The fruit of the varieties you mention, and, indeed, of all varieties, is fit for gathering when the stalk parts readily from the spray when the fruit is raised a little above a horizontal position.

FRUIT TREES FOR SOUTH WALL (R. L.).—Your wall will accommodate fourteen trees at 5 yards apart. You have six which are good, except the White Nectarine, which is too tender, being a shy bearer out of doors. We would have dwarfs for permanent trees, having standard Apricots, Peaches, and Nectarines between them to cover the upper part of the walls, cutting the standards away as the dwarfs advance and require the space. *Apricots*: St. Ambrose and Hensback; *Peaches*: Early Beatrix, Early York, and Dymond; *Nectarines*: Elrige and Edinaston Orange; *Plum*: Transparent Gage; and *Pear*: Glou Morceau, Josephine de Malines, and Winter Nodis are excellent, but they do not come in until December and onwards.

GRAPES SHRIVELLING (Notice).—We have no information as to the treatment. The roots are probably too dry. Water them copiously once or twice a week with weak tepid liquid manure.

ERRORS IN PLANTING VINES (W. G.).—We have committed a mistake in planting the vines. In the late house the two Pope's Hamburgh (Frankenthal) and Foster's White Seedling would have been better had they been the two Muscat of Alexandria and one Madresfield Court which you have in the early house. As the Vines have only been planted two years we should transfer those named from the early house to the late, and *vice versa*. It may be done carefully after the leaves fall, and they will not suffer to a great extent. The want of colour is probably due to overcropping, but may arise from a deficiency of water in the early stages of their growth and whilst swelling, or the Vines may have been deprived of too much foliage, or syringed to a late period with a deficiency of air. The "burning" of the berries is attributable to the atmosphere being too moist and the border being wet, it not having been duly supplied with water when the berries were swelling previous to stoning. Maintain a drier atmosphere with free ventilation.

GRAPES SHRIVELLING (M. Falkner).—Your Vines are evidently in soil unsuitable to them. There is a deficiency of root-action, and the remedy is, as soon as the leaves have fallen, for you to set about removing the soil from the border, preserving the roots of the Vines as much as possible, and making it afresh. This is the only cure.

VINES FOR INTERMEDIATE HOUSE (Old Subscriber).—The Vines will succeed tolerably well, especially as you have a border inside as well as outside the house. We presume that the Vines will be planted inside, and be rested by turning them outside, for which you have made provision. The kinds you have selected succeed each other; 7, White Chasselas we should not plant, but have Duke of Buccleuch; 6, Madresfield Court Muscat instead of Lady Downe's; 4, Venn's Black Muscat in place of Muscat Hamburgh; and the others as named. If you had another house or houses for Grapes we should have had two Venn's Muscat and two Madresfield Court, omitting Foster's White Seedling and Duke of Buccleuch.

SEMPERVIVUM TABULEFORME AND DOUBLE LOBELIA PROPAGATION (Linda).—The *Sempervivum* is propagated by offsets, but more readily from seed. Double Lobelia should, to keep it true, be continued by cuttings, which should be struck at once in gentle heat, or a few old plants may be potted and propagated in early spring in heat.

PEACH AND NECTARINE STONES SPLIT (Idem).—It arises from a defect of the seed, and is by some considered to be a consequence of deficient watering and keeping too warm during the stoning period. It is likely they may never exhibit the defect again.

PINE APPLES NOT TRUE TO NAME (W. H. E.).—The description you give accords well with the new Black Jamaica (Montserrat of some, English Globe, Brown Antigua, St. Kitts), but we could not form so meagre a description as you give say what it is with any approach to certainty.

STRAWBERRIES AND STRAWBERRY CULTURE.—In the fourth line of the second paragraph of the article on page 235, for "season" read *season*, and in the first line of the following paragraph for "occasionally" read *annually*.

PRICKLY COMFREY (Idem).—This, as a fodder plant, is not within our province. Full directions for its culture are in Baxter's "Agricultural Library."

NEW PLANTS (An Old Subscriber).—Send potted specimens of your Pelargoniums and of your Roses to the Floral Committee of the Royal Horticultural Society. If approved there you might dispose of your stock to some of our chief florists.

SCARBOROUGH LILY FLOWERING (Miss Y.).—It is unusual for this to flower twice, though the flower stems commonly succeed the different bulbs, which throw up the scapes according to the ripening of the growth and their formation. It will probably flower better another season. They do not usually flower strongly two years succeeding.

ZONAL AND NOSEGAY PELARGONIUMS (Idem).—There are Show or large-flowered, Spotted, and Fancy kinds of Pelargoniums, which are known as florists' flowers, and are defined in our "Florists' Flowers," which may be had free by post from our office for 4d. The Zonal Pelargoniums, which may be what you mean by florists' varieties, have the petals of nearly equal width—upper and lower broad and overlapping, so as to form a circular outline of large size, the fringes being smaller than the Nosegay, and the leaves are round. Nosegays have the lower petals much wider, often twice the width of the upper, and they do not meet, or indifferently, and so do not have a circular outline, but have a ragged or starry outline; the fringes are larger, often immense, and the leaves are more or less incised. They are all Pelargoniums, but from long usage are still called Geraniums, a name which belongs to another genus.

WINTERING BEDDING GERANIUMS (F. J.).—They would winter more safely in the boxes than potted-off singly in 3 or 4-inch pots at this season of the year, especially as they are to be kept cool. In the cold frame it is likely they will suffer from frost, but we presume you have means of safety from it. Pot them off early in March.

SPAN-ROOFED PIT FOR GERANIUMS, &c. (R. A. P.).—The 4½ feet we presume you mean for the centre height from the ground to the ridge, and

2½ feet the height of the side walls, which will answer very well. To keep out frost in severe weather you will need a pipe all round the house—a 5-inch pipe will be sufficient; even a 2-inch one would do if you could make sure of heating the water to a good temperature.

PRIMULAS (Droghda).—The author is a private gentleman.

PAILLIA (W. R. W.).—It is not a common form of flowering, but we have seen the form before, especially in dark flowers. It is very handsome. Send one to Mr. Keynes, Salisbury, and ask him his opinion.

OLD YUCCA LEGGY (J. M.).—It is likely that were the plant cut down it would start again a sucker from the base. We should, however, before doing so, wrap the stem with moss a foot down, commencing immediately under the leaves, and about 6 inches in thickness, securing it with string moderately tight, putting it on in spring, and keeping moist during summer, when by autumn it is likely the trunk will have emitted roots, and it may then be cut off below the mossed part, and be planted up to the leaves where desired. You may probably in this way save the old head, and secure suckers from its base.

ENCOURAGING BIRDS TO BUILD (Idem).—Old nests placed in the upper forks of the trees so as to imitate as nearly as possible natural ones in January or early in February, before they have begun to build elsewhere. It will not do to place the nests in the lower branches and indiscriminately. Place a good number in a tree, a dozen or more, a few in the next tree, and one or two in another. If the nests fail to induce the birds to build, secure a nest of about half-fledged young ones from the nearest rookery, and place them securely in a fork of a high tree and sheltered. The old ones feeding them, the young, if not the old birds, will return to the same trees to build their nests another year.

VARIOUS (Birdie).—Sweet Peas sown now in a light airy position in a conservatory will not flower during winter, but they would do so in spring and early summer. The Amaranthus and Love-lies-bleeding would, if taken up now with a goodly amount of soil and potted, keeping in a shaded position for a few days, and then in a light airy one, retain their beauty a long time; but the difficulty is to secure them with soil to the roots, and in that case the leaves droop and fall. The seedling Hollyhocks would be better wintered in a cold frame during the winter, planting out early in April; or you may plant them out if the soil be light now, affording them a slight protection of dry litter in severe weather. A dark-leaved edging plant is *Oxalis tropaeoloides*. The Rose you name will be likely to suit you; but we have no experience of it in such a position. Cuttings of *Gardenia radicans*, the young growth of the present year, will strike in gentle bottom heat. Being a stove plant it should be placed in house that will afford the requisite temperature—60° to 65° at night, and 70° to 75° by day.

PLEUROMA CULTURE (W. W. W.).—It requires an intermediate house—a warm greenhouse or cool stove—45° to 50° in winter at night, and 55° to 60° by day. Avoid syringing overhead, which causes the leaves to decay at the ends, and ultimately fall; but maintain a moist atmosphere during growth, a gentle syringing then doing no harm, and keep the soil moist, but avoid making it sodden. When the growth is made keep drier and well aired, watering only to keep the soil moist. The soil is right, two parts sandy peat to one of loam, with a few nodules of charcoal and broken pots, about a sixth of these, and silver sand, with good drainage.

MUSHROOMS DISAPPEARING FROM PASTURE (Hagley).—The disappearance of the Mushrooms is accounted for by the different depasture of the land. The dressing of salt every alternate year, and the grazing with horses and sheep were favourable to the Mushroom, but of late years you have grazed with cows, which are not so. Dress with the salt, and graze with horses and sheep, and you will in a year or two have Mushrooms.

WILD THYME ERADICATING (Idem).—There is no better plan than to apply nitrate of soda (1 lbwt. per acre), and manure heavily, keeping the grass for hay, and eating off the fog or aftermath with sheep. Every alternate year you may dress with salt, and with the mowing and high cultivation the Thyme would be overpowered and die out. We should sow white Clover at the rate of 12 lbs. per acre in April, after a dressing of manure. It would improve the herbage considerably. Snuckling Clover is also good for such a soil; 4 lbs. of it may be sown per acre, omitting 1 lb. of the white Clover.

LILIUM SPECIOSUM AFTER FLOWERING (A. M. A.).—Place the plants of *L. speciosum*, commonly called lancifolium, outdoors in a warm sheltered position, and if wet weather lay the pots on their sides, but not if fine, heavy rains being injurious; but it is necessary that the soil be moist. When the stems turn yellow cut them off, and turn the plants out of the pots; remove the part of the stem above the crown of the bulbs by twisting it out, and take away any soil that comes freely from the roots; then, after draining the pots well, return the bulbs to the same size of pot, or, if this is too small, to others a size larger, potting so as to have the crowns just level or a little below the surface, and 2 inches from the rim of the pot. The space left should be filled up level with the rim with the same compost as that used for potting, when the fresh growths are a few inches above the rim of the pot. The soil should be kept moist, any water required being given around the bulbs, and not poured upon them. Keep them in a frame or pit safe from frost during the winter. Equal parts of sandy peat, light loam, and leaf soil, with a sixth of sand will grow them well.

LILIUM SPECIOSUM (An Old Subscriber).—We are unable to account for the flowers of the red kinds being so small, whilst the white do well. What will grow one grows the other perfectly; but you may add a little more manure to the soil for the reds, and water with liquid manure when they are in free growth.

CELERY RUNNING (Idem).—Your Celery is running. It may arise from sowing too early, or growth being checked by cold or want of water. It may also result from sowing old seed, plants from which are apt to run to seed at an earlier season than those from new seed. It is not good to earth Celery a little at a time. It encourages the rising of the stalks as you describe. We do not earth Celery much—only a little to keep the leaves from falling, reserving the main earthing-up until three weeks for white, and a month for red, before it is required for use; but it is well to earth well up in October and onwards all the crops, so as to preserve the stalks from frost.

SAWDUST FOR BLANCHING CELERY (Sawpt).—It is a good thing for earthing Celery, placing it between the rows and around the plants after the leaves and stalks have been brought together, pressing the sawdust about them, so as to lie compact, and ensure blanching perfectly. It is better than soil, not being so liable to cause the stalks to rot, and is a good protection against frost.

CUTTING-DOWN MAIDENTHAIR FERNS (C. R. H.).—It is not desirable to cut down all the kinds of *Adiantum*, as some of them are evergreen, and should

only have the brown fronds removed as they occur. *A. cuneatum* is best kept rather dry in autumn, and all the fronds cut away at once before they start into fresh growth; or they may be removed as they become yellow, which is more tedious, and affords no better result.

FERNS FOR ROCKWORK (Rockwork).—As you propose to exclude frost, the following, which are mostly greenhouse kinds, would succeed. They are of moderate growth, and not costly:—*Adiantum assimile*, *Asplenium dimorphum*, *Blechnum occidentale*, *Davallia dissecta*, *Doodia aspera*, *Lastræa elegans*, *Lomaria l'Hermierii*, *Nephrodium molle corymbiferum*, *Nipholobos lingua corymbifera*, *Platyterium albidum*, *Platylova rotundifolia*, *Pteris cretica albo-lineata*, *P. umbrosa*, *P. serrulata cristata*, *Asplenium marinum*, *Adiantum Capillus-Veneris*, *Blechnum Spicaute imbricatum*, *Polypodium cambricum*, *Polystichum angulare proliferum*, *Wollastonia*, and *Scopolopendrium vulgare corymbiferum*. The last six are British. You would not be suited by creepers at the upper part, but you may have *Nephrolepis tuberosa* planted there, some of the fronds of which will hang down 3 or 4 feet, and have a fine effect. A good plant for covering any bare spots is *Ficus repens*.

FUMIGATOR (J. S. H.).—The best is probably Drechsler's patent, which is of various sizes; the largest size, 3½ inches diameter, would be best for your purpose. Tobacco is best—the leaf or cavendish cut up roughly; but good tobacco paper answers perfectly. It will not injure Orchids or Ferns, only the foliage, &c., must be dry, the floor of the house being moist; but of some subjects, for instance *Adiantum farleyense*, the fronds are injured by a very moderate degree of fumigation. The fumigator will be less likely to cause injury in proportion as the smoke is delivered cool.

PLANTING SEEDLING PERENNIALS (E. S.).—If well rooted they would be best planted-out in their blooming quarters early in October; but if the soil is not in good order, or the plants small, planting may be deferred until spring. The description of the seeds you name may be found in any seed list. We cannot undertake to describe "style of growth, period of flowering, best situation, &c.," of over sixteen subjects at a time. Annuals should be thinned to 3 inches apart; and plant from six to a dozen plants in a patch; biennials and perennials about 1 foot apart. *Salvia nemorosa* is also known as *S. sylvestris*.

PLANTING SIDES OF CARRIAGE DRIVE (Inquirer).—Under the shade of the Lime trees shrubs would thrive very indifferently. The best that we know are *Aucubas*, *Laurels*, *Butcher's Broom*, and *Periwinkles*, the latter giving a close green covering, and growing about a foot high. Ivy is also a fine ground covering. The best hedge would be *Thorn* or *Quick*, which in good soil and kept clean grows quickly and makes the best of fences. You may make a semi-evergreen hedge by planting a *Holly* every yard along with the *Quicks*—seven *Quicks* and one *Holly* per yard.

PLANTS FOR ENTRANCE HALL (Idem).—From the sketch we conclude that the roof is opaque, in which case it would not suit plants, except those near the windows, and not even these in winter, unless the house were heated. Could you not have the roof glazed, and the place heated by a hot-water boiler and pipes? Any danger of draught might be obviated by having a glazed entrance 6 feet long and 4 feet wide, so as to allow of a person shutting the outer door before opening the inner one. You have means of forming at a cheap rate a most excellent conservatory if you can glaze the roof, which we would suggest to you as far preferable to attempting to grow plants in what must be, without the glass roof, an unsuitable place.

INSECTS ON GLOXINIAS AND ACHIMENES (F. C. T.).—The plants are infested with thrips, which we are surprised is not destroyed by fumigation with tobacco; this cannot have been sufficiently powerful to destroy them, as we have not known efficient fumigations fail. No two fumigations will destroy them, for though it may kill all existing, they will leave behind them eggs, from which will proceed others. So long as the insects are present on the plants the fumigation should be continued, and this may be every week or fortnight, or oftener, until the pests are overcome, keeping a sharp look-out afterwards, and whenever an insect is seen fumigate. As you have such a plague of these insects, you must keep the atmosphere very much too dry. With increased moisture and fumigation they will be subdued.

HEDGE FOR SHELTER (E. M. S.).—Beech would grow well, your soil overlying chalk; but *Hornbeam* would grow more quickly, and it forms a good hedge, and is more twiggy. The Beech retains its leaves in a young state in winter, and is, on that account, more shelter-giving, but is very litery. Either would suit you. *Evergreen Privet* grows quickly, but would probably be too weak.

WEEDS ON LAWN (W. H.).—The three weeds you enclosed are evidence that the soil preparation they requires draining. No treatment will destroy them or prevent their recurrence as long as there is an excess of moisture in the soil.

APHIS ON LARCH (Alfred).—The shoot you sent us is infested with an aphid which is peculiar to the Larch, and unusually prevalent this season, it being, no doubt, greatly fostered by the drought. You have nothing to fear from it, as it will not injure the trees permanently. Wet, and the coming winter, will set them right.

GRUB (E. M. P.).—The grub is the Leather-jacket—*Daddy-longlegs*—larva, and very destructive. The best remedy is hand-picking; but we have known nitrate of soda, at the rate of a pound per square rod, applied with beneficial results.

PRUNING GOOSEBERRY TREES (Idem).—It is too early to prune *Gooseberry* and *Currant* bushes, and especially those raised from slips. Prune them as soon as the leaves have fallen.

CINERARIA AND CALCEOLARIA SEEDS GERMINATING (Idem).—There being so much dependant on the temperature in which the seeds are placed after sowing, it would be futile stating how long seeds of different kinds are in germinating. In a hotbed we have had *Cinerarias* up in four days, and *Calceolarias* in a week; whilst, without heat, about eight days elapse for *Cinerarias*, and ten days to a fortnight for *Calceolarias*.

NAMES OF FRUITS (Seabor).—The Pear is *Bonré d'Amanlis*, a good early variety. (*Inquirer*).—1, Dumelow's Seedling; 2, Pearson's Plate; 3, Eradick's Nonpareil; 4, Flower of Kent; 5, Sturmer Pippin; 6, Royal Pearmain. We cannot name fruits or flowers through the post. (*Dublin*).—1, Devonshire Buckland; 2, Pilmston Rosset; 3, Hawthornden; 4, Sam Young; 6, English Codlin; 7, Kentish Codlin; 10, Hawthornden; 11, Keswick Codlin; 12, King of the Pippins; 13, Keswick Codlin; 14, Gloria Mundi. (*J. Carpenter*).—1, Glou Morcean; 2, Gansel's Bergamot; 3, Winter Nellis; 4, Easter Bonnet; 5, Winter Nellis; 7, Fasse Colmar; 8, Hampden's Bergamot; 9, Vicar of Winkfield. (*S. J. W.*).—1, Fondante d'Automne; 2, Van Mons Leon Ledere.

NAMES OF PLANTS (R. H. W.).—We cannot name a plant from its leaves

only. (*B. T. J.*).—We cannot name mere florists' flowers, such as the varieties of *Begonias*. The other two specimens were finished. (*J. B.*).—*Hibiscus Trionum*. (*Clermont*).—1, *Gentiana asclepiadea* (white-flowered var.); 2, *Celtis australis*; 3, *Salix herbacea*. (*L. J. K.*).—1, *Anemone japonica*; 2, *Ecermocarpos scaber*. (*Wm. W.*).—Specimen insufficient. (*Rus.*).—Quite unnameable. (*Prima*).—1, *Hydrothamnus fasciculatus*; 2, *Abutilon venosum* (*Bot. Mag.*, t. 4453); 3, *A. megapotanicum*; 4, *Saxifraga sarmentosa*; 5, *Pessilora glauca*.

POULTRY, BEE, AND PIGEON CHRONICLE.

THINNING-OUT.

REALITY and imagination are very different things. We draw largely on the latter when we look at the broods as they come off in February, March, April, and May. We can see many winners, and all good ones. While we rock ourselves in these blissful anticipations, and determine to avoid the errors that had so often made shipwreck of our hopes and introduced us to grave disappointment, the time creeps on, and the little balls of fluff grow into awkward and lanky chickens. Still the time goes on, and different temperature, shortened days, and lengthened nights demand a change of treatment. But the change is a startling one from the thirteen "new comes" amply cared for under the hen, and the same number of great staring fowls that ask for board and lodging. If there were but one thirteen something might be done; as there are six thirteens something must be done. No amount of writing or talking will enlarge a roosting-house. It is known Henry V. of white-flag notoriety is slightly lame. When living at Frohsdorf his admirers were allowed to walk through the apartment as he sat at dinner, or to follow him at a distance when he took his constitutional. Two old marquises of the *ancien régime* were doing so, when one exclaimed to his companion, "My dear marquis, our prince has one leg shorter than the other." "*Maladroit!*" said the other, "they are uneven only because one is longer than the other." So we will insist the house is not too small, but the stock is too large. No difficulty now. How is it to be done? By eating or selling; by selling alive as stock birds, or as ordinary food. The good London wife retired into the country was asked, when her first hog was killed how she would have it cut up? She said, "All hams." And so our friend and poultry-breeder would have all his chickens prize birds. But it may not be. Whatever is done, it should be done at once. Procrastination in this instance is not only the thief of time, it is the thief of food. These birds are eating that for which they will make no return. You must decide how you will dispose of them. All we can tell you is, they must be sold. There is a pleasure in putting off a thing; it shows we are not compelled to do it. But Nemesis comes in the shape of the private Caleb Quotem. He says, "If you please, sir, you must increase my allowance." These growing fowls eat terribly. Now you must steel your heart. And after all, if you had room macy of them are not worth keeping—four-toed Dorkings, single-combed Hamburgs, crooked fowls of every breed; those that somehow never seemed to do any good, the extra cocks, the faintly feathered: all these should now be got rid of. Their food and their room should be given to those that will make a better return for them. If you are told your fowls are all too good to kill, do not believe it. We lately went into such a yard, and the two first selected birds put in our hand were both humpbacked. If you do not thin your stock now, if it is to be thinned at all, the inevitable loss will be your own choice.

ARMLEY AND WORTLEY POULTRY SHOW.

THE annual Show was held on the 7th and 8th inst. in a large field at the upper end of Armley. The arrangements were most extensive, in fact the marquee erected for the poultry, &c., would have easily accommodated one thousand pens, but we are sorry to say the Show is as much in its babyhood as it was ten years ago. In poultry, Pigeons, and Rabbits were only 122 entries, when with a little more attention to the prize list, a regular revision, and a somewhat greater outlay, this section from being a drag upon the funds of the Society would be self-supporting. The pens were on Turner's principle, and were nicely arranged along one side of the tent, and the birds, &c., were well attended to.

There were two classes for *Game*, but nothing in them at all worthy of note if we except a Black Red cockerel shown by Mr. Beldon, and this was very good, the fact being that the winners in most cases were from that gentleman's yard, not, however, of such quality as we usually see from the same place. In *Bantams* the first were Black Rosecombs, and the second neat Black Red Game; and in *Brahmas* Mr. Schorfield showed a capital pair of Dark chickens. *Rouen Ducks* were very good, but the *Aylesburys* were not noteworthy.

PIGEONS were a pretty fair show as regards quality, but, as before stated, the entries were poor.

RABBITS had only two classes, but this was the best section in both entries and quality; we heard much grumbling as to the awards, which we do not hesitate to say were correctly made. In the class for Any breed two firsts were awarded, one to a grand Silver-Grey doe, and the other to a capital Angora doe, the second going to a Himalayan; and in Lops double prizes were given, one first to a grand Fawn doe, and the other to a Tortoiseshell; the seconds going to Fawn-and-white and Sooty Fawn bucks.

Classes were also provided for CAGE BIRDS, and a separate and very nice tent devoted to them, the entries being very good, although the prizes were far too small. The Yellow English, which we should interpret as a class for the common Yorkshire Canary, were but poor, the winners, especially the first-prize bird, partaking very much of the style of the Scotch fancy, these remarks applying also to the Buff class. In the Marked class were some pretty good birds, the winners being first Buff and second Yellow. Norwich were only few in numbers, but pretty good. Belgian (Marked) only one, but of Buff or Yellow five, but poor in quality. Of Lizards there were but two, but we could not understand the awards, but as we did not handle the birds, no doubt it could be explained; but on the face of it the second was by far the best, having an even cap, while the first was both flecked on the wings and broken-capped. In Mules there was a nice one of the Goldfinch cross in the first-prize cage, the second being a Linnet Mule. In the rest of the classes we did not notice anything of striking merit.

We published the awards last week.

FARNWORTH POULTRY SHOW.

THE Show of the Warrington Society came off on Thursday the 17th inst., when the weather was exceedingly fine, and the attendance good; the quantity and quality of the poultry being alike good. Eight silver cups, in addition to substantial money prizes, were offered for competition. Nearly all the classes being for young poultry.

Black-breasted Red Game produced some good birds; in fact, this class is again looking up. Brown Reds were very good, the birds in the cup pen models of their kind, but quite young; the winners in the next class were Duckwings and Piles. Mr. Brierley's pens were empty. In Dorkings Mr. Walker won easily. There were only three pens of Spanish, although a cup was given; but we could not understand the award, for while the pullets were equal, the first-prize cockerel was much coarser in face than the second. In Buff Cochins Mr. Crabtree won the cup with a grand young pen, beating Mr. Taylor, and taking the third also. Mr. Taylor was first and third; and Mr. Sidwick second in Partridge. Of Hamburgs there were some good birds, but the entries were poor; and there occurred a most striking mistake in judgment, or an oversight, the cup being awarded to a pen of Gold-spangled in which the pullet was willow-legged, and ought to have been disqualified. In Golden-pencilled Measrs. Duckworth took the leading position with a most charming pen, which might well have won the cup unless it had been given to the first in Silver-spangled, which were also grand birds. In Polands the winners were Silver. In Brahmas the winners were grand birds, and we believe all from the yard of Mr. Lingwood, who, as a breeder, seems to have had great success. The class for Game Bantams was for any colour, Mr. Entwistle winning the cup with a charming pen of Black Reds, closely pressed by a pen of Piles all the way from Scotland. The third prize also went to Black Red; and in the Variety class Blacks were first; Pekins second; and Silver Sebrights of the old style third; but it was generally thought that Mr. Leno's Sebrights might well have stood higher. In single cocks first was a smart Black Red; second the Sheffield cup cock, looking rather flat; and third a Pile; Crève-Cœur, Black Hamburgs, and Sultans dividing the Variety class prizes. There was a fine collection of Ducks, Geese, and Turkeys; many of the winners have been commented upon in our recent reports.

GAME.—Black-breasted Red.—Chickens.—1, T. P. Lyon, Liverpool. 2, H. Beldon, Bungley. 3, J. A. & H. Staveley, Driffield. Brown-breasted Red.—Chickens.—Cup, J. Fortune, Keighley. 2, G. C. Barnett, Birkenshead. 3, H. Beldon. Any other variety.—Chickens.—1, J. Fletcher, Stoneclough. 2, J. Fortune. 3, E. Bell, Burton-on-Trent. Single Cock.—1, J. Chesters, Nantwich. 2, F. P. Lyon.

DORKINGS.—Chickens.—1, J. Walker, Rochdale. 2, J. White, Warley. 3, L. Pilkington, Widnes. *etc.* W. Evans, Whiston. c, E. W. Southwood, Fakenham.

SPANISH.—Chickens.—1, H. Wilkinson, Earby. 2, H. Beldon. 3, R. Halsall and Sisters, Halewood.

COCHINS.—Cinnamon or Buff.—1, J. Walker. 2, W. A. Taylor, Manchester. Chickens.—Cup and 3, W. H. Crabtree, Levenshulme. 2, W. A. Taylor, *he*, C. Sidwick, Keighley. Partridge-feather, or any other variety.—Chickens.—1 and 3, W. A. Taylor. 2 and *he*, C. Sidwick. Other variety than Cinnamon or Buff.—1, W. H. Crabtree. 2, T. Aspden, Chnroh. 3, T. Stretch, Ormskirk. *etc.* W. A. Taylor. *he*, J. Walker; R. S. S. Woodgate, Penbury.

HAMBURG.—Golden-pencilled.—Chickens.—1, G. & J. Duckworth, Chnroh. 2, H. Beldon. 3, J. Long. Silver-pencilled.—Chickens.—1, H. Beldon. 2, F. W. Meznell, Derby. 3, J. Long. Gold-spangled.—Chickens.—Cup, T. May, Wolverhampton. 2, H. Beldon. 3, G. & J. Duckworth. Silver-spangled.—Chickens.—1, H. Beldon. 2 and 3, J. Fielding, Newbarn.

POLANDS.—1, W. A. Taylor. 2, H. Beldon. 3, J. Fearnley, Loughton. BRAHMA FOOTBALL.—1, T. F. Ansdell, St. Helen's. 2, W. H. Crabtree. 3, J. F. Smith, Sheffield. Chickens.—Cup and 2, T. F. Ansdell. 3 and *etc.* A. Rigg, Gateacre. c, J. Brookwell, Wigan.

BANTAMS.—Game.—Chickens.—Cup, W. F. Entwistle, Westfield. 2, R. Browlie, Townsend. 3 and *etc.* W. F. Addie, Preston. Any variety except Game.—1, H. Beldon. 2, J. Walker. 3, J. W. Morris, Rochdale. *he*, M. Leno, Dunstable.

GAME.—Cock.—1, W. F. Addie. 2, E. Walton, Hornccliffe. 3, F. Steel, Halfax. *he*, W. F. Entwistle.

ANY OTHER DISTINCT VARIETY.—1, E. Walton (Crève-Cœur). 2, H. Beldon (Black Hamburgs). 3, T. Marples, Blackburn (Sultans). *he*, C. Sidwick (Black Hamburgs).

SELLING CLASS.—Chickens.—1, T. F. Ansdell (Dark Brahmas). 2, J. Leeming, Preston (Black Spanish). 3, J. H. Pickles, Birkdale (Dark Brahmas). *he*, J. E. Parley, Newton (Silver-spangled Hamburgs); T. Wakefield, Golborne (Brahmas).

DUCKS.—Rouen.—Cup, 3 and c, W. Evans, Whiston. 2, J. Walker, Aylesbury. —1 and 3, R. Hutchinson, Littleborough. 2 and *etc.* J. Walker. Any other variety.—1 and 2, M. Leno. 3, H. J. Bailey, Teubury.

GESE.—1 and 2, J. Walker, Rochdale. 3, B. Bather, Tarbock. c, W. Burgess.

TURKEYS.—1, J. Walker. 2, J. Brookwell. 3, Rev. N. J. Ridley.

JUDGES.—Mr. R. Teebay, Fulwood, Preston; Mr. G. Fell, Warrington.

THE POULTRY-KEEPER.—No. 20.

COCHIN-CHINA OR SHANGHAI.

BUFF HEN—GENERAL CHARACTERISTICS.

THIS hen (*fig. 84*) is even more massive and compact than the cock, the head and the neck being less, and the comb and lower

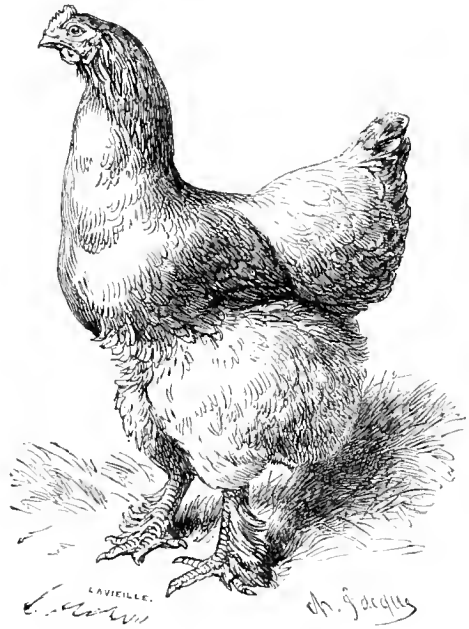


Fig. 84.—Buff Cochin-China Hen.

fleshy parts almost absent. The foot is very short, the tail very small, and the body seems formed of large, prominent, and angular masses, markedly separated from each other. Seen from behind she seems more broad than high, and not having the ordinary look of a fowl. On a large nest she spreads out in a perfect half globe owing to the abundance of her feathers. The plumage is entirely buff. The flesh is finer and of better flavour than that of the cock, and these qualities are retained in the adult state, but not so in the cock.

Weight.—6 lbs. 10 ozs. at full age. When more than a year old some hens have reached 7½ to over 8½ lbs. This unusual weight is generally occasioned by natural fattening, and the hen is then excellent for culinary purposes.

Stature.—Height from the head to under the feet, 17½ inches to 19½ inches; from the back to under the feet, 9 to 11 inches. Size of shoulders, 7½ inches. From the development of the feathers which forms the whole of the thighs and hind quarters, 9½ inches.

Body.—Cubic viewed horizontally; neck small; shoulders and breast projecting; thighs very large; breast comparatively more fleshy than the cock's; bones less heavy.

Head.—Small and well formed.

Comb.—Single, straight, and very short, 1½ inch at most.

Wattles.—Very short and rounded.

Ears.—Very small.

Face.—Bare.

Tufts.—Like those of the cock.

Beak.—Clear yellow.

Eye.—Mild and intelligent. Pupil, clear grey; iris, black.

Leg-shank.—Short and very strong, as are the toes, and feathered as those of the cock.

at a show held under a tent. About 5 P.M. there was a terrific shower, the water poured off the tents in perfect sheets. Into the tents crowded the people, presently small rivers appeared among the baskets. The water flowed off the tents under the canvas, drenching the baskets through and through. And the results—why, a hen for which we know the owner refused £20, was put at the close of the show into the basket. It had to go to the other side of England, and by the time it reached its home the straw of the basket was still soaked, and the bird had the cramp so badly that it never recovered. Mind, we only say this *en passant*, in no way connecting it with this well-managed meeting, where the weather was most beautiful, but simply to show how very important it is for baskets as well as birds to be properly housed.

But now for the birds. The *Dorkings* were very good; the colour of the first cockerel very grand, and the second the best Silver-Grey we have seen for some time; in the pullets, first a beauty. We think she was at Bath. Both the highly commended ones were also good. In the Variety class, the first, White, was a young bird of great promise; second not so good. Pullets were quite up to the average. Somehow this Society always has a good display of *Dorkings*. *Spanish* were very young, but the birds looked up to doing well in future. *Game* made up the largest classes. The winners were good. The Variety Game class seemed to have been puzzling to many. We think it must have been the way the schedule was printed; consequently there were several pens of *Crèves* entered in this class which should have gone into the Variety class, which was after all empty. Schedules cannot be printed too clearly. *Cochins* were few and good. Both Mr. Yardley's birds were nice-grown birds. In the Variety Cochin class a very splendid White won. His frame was huge, and his shape good. The second was very young. In pullets the first was a good colour, well feathered; the second also good, and will make a large bird. In *Brahmas*, Dark, Mr. Leno's first cockerel was nice, also his pullet. The Lights we thought better than the Darks. The pullet was capital. *Hamburghs* were not first-rate, the Spangled best. The first pullet was of a good colour. In *Bantams* a beautiful Laced cockerel won first, and a well-shown Black Red second, and a good Brown highly commended. In pullets the first was smart, second Laced.

Only one pen of *Turkeys* appeared, and one of *Geese*. All the latter must have been fattening for the coming season. *Ducks* were only passable, save the winning pens. The first Aylesbury came from the town whence they got their name. Large sale classes followed, *Spanish* winning first in each, which would do for many a good show's open class, and then came the medley. This time *Spanish* and *Dorkings* won the prizes, which turned it into an "Any age and variety" class.

PIGEONS had only one class, but every pen was noticed. They were certainly unusually good, and made a pretty finish to this very nice Show. We congratulate the Society on their 1874 meeting most heartily.

DORKINGS.—*Silver-Grey or Coloured.*—Cockerel.—1, T. C. Burnell, Michel-dever, Hauts. 2, O. E. Cresswell, Early Wood, Bagshot. 3, J. Longland, Grendon. Pullet.—1, T. C. Burnell. 2, J. Longland. 3, O. E. Cresswell; J. Longland.

DORKINGS.—*Any variety.*—Cockerel.—1, O. E. Cresswell. 2, R. E. Oliver, Tonchester. 3, Rev. E. Barrum, Berkhamstead. Pullet.—1, Rev. E. Barrum. 2, and C. J. Longland.

SPANISH.—Cockerel.—1 and 2, J. T. Parker, Northampton. 3, W. R. Bull, Newport Pagnell. Pullet.—1 and 2, J. T. Parker. 3, T. Love, Kingshorpe, Northampton.

GAME.—*Black or Brown Red.*—Cockerel.—1, J. Garney, Winslow. 2, J. M. Payne, Rotherthorpe. 3, Withheld. Pullet.—1, B. Cox, Monilton, Northampton. 2, M. Ivens, Eyleson, Banbury. 3, Howard & Pattenhall, Wellingborough; T. Hancock, Northampton.

GAME.—*Any other variety.*—Cockerel.—1, B. Cox. 2, No competition. **COCHINS.**—*Cinnamon, Buff, or Partridge.*—1, H. Yardley, Birmingham. 2, Mrs. M. A. Mason, Boston. Pullet.—1, H. Yardley. 2, G. Tatham, Kingshorpe, 3, H. V. Story, Nottingham.

COCHINS.—*Any other variety.*—Cockerel.—1, R. S. S. Woodgate, Pembury, Tunbridge Wells. 2, W. R. Bull. Pullet.—1, R. S. S. Woodgate. 2, A. F. Faulkner, Thrapstone. 3, W. R. Bull.

BRAMA POOTRA.—*Dark.*—Cockerel.—1, M. Leno, Markyate Street. 2, C. Wright, Northampton. Pullet.—1, M. Leno. 2, J. S. Clarke, Oundle. 3, Rev. R. L. Story, Lockington Vicarage.

BRAMA POOTRA.—*Light.*—Cockerel.—1, P. Haines, Palgrave. 2, M. Leno. 3, Mrs. Peat, Sharabrook. Pullet.—1, Mrs. Peat. 2, P. Haines. 3, M. Leno; A. F. Faulkner.

HAMB ROUS.—*Gold and Silverspangled.*—Cockerel.—1, J. Ward, Barton Hill, Ashby-de-la-Zouch. 2, J. Garney. 3, T. Love. Pullet.—1 and 2, T. Love. 3, Ward.

HAMBROUS.—*Gold and Silverspangled.*—Cockerel.—1, A. F. Faulkner. 2, No competition. Pullet.—1 and 2, A. F. Faulkner.

BANTAMS.—*Cockerel.*—1, M. Leno. 2, Capt. T. Wetherall, Loddington, Kettering. 3, B. Cox; Capt. T. Wetherall. Pullet.—1, Capt. T. Wetherall. 2, M. Leno.

GOSLINGS.—1, T. H. Wykes, Greenfield, Strixton. 2, No competition. **DUCKS.**—*Aylesbury.*—1, T. Sear, Aylesbury. 2, S. Deacon, Oundle. 3, Hon. and Rev. C. J. Vernon, Griffon Underwood Rectory. *Rouen.*—1, R. Wood, Clapton, Thrapstone. 2, W. H. Harrison, Oxendon, Market Harborough.

TURKEYS.—*Young.*—1, S. Pinfrey, Wilby, Wellingborough. 2, No competition. **SELLING CLASS.**—*Cock, Drake, or Gander.*—1, J. T. Parker (Spanish). 2, M. Leno (Bantams). 3, J. S. Clarke (Brahma). 3, H. Yardley. 4, T. Sear (Aylesbury). 5, R. Sykes, Geddington, Kettering (Rouen); Hon. and Rev. C. J. Vernon (Rouen). 6, T. Hancock, Northampton (Guinea). 7, C. Wright (Brahma). 8, T. G. West, Dillington, Northampton. 9, T. Love; M. Leno (Bantams); Mrs. Peat (Brahma); T. Pell, Wiston, Northampton (Grey Goose); R. Sykes (Rouen); J. T. Parker (Spanish).

MISCELLANEOUS CLASS.—*Any variety of Fowls, including Guinea Fowls, Pea*

Fowls, Turkeys, Geese, and Ducks.—1, W. Nottage (Spanish). 2 and 3, J. Longland (Dorkings). 4, C. Wright (Brahmas). 5, B. Cox (Game); J. Holmes, Loddington, Kettering (Rouen); T. G. West (Muscovy); Capt. T. Wetherall (Black Red Game Bantams); Hon. and Rev. C. J. Vernon (Partridge Cochins and Rouen Ducks); A. F. Faulkner (White Cochins); W. Nottage (Spanish); — Roberts, Kingshorpe, Northampton (Dark Brahma Pouter); T. Love (Golden-spangled Hamburghs); S. Pinfrey (Turkeys); R. Sykes (Rouen ducks); C. Wright (Dark Brahma). 6, J. Hulme (Guinea Fowls); T. G. West (Muscovy Ducks); C. Foll, Stowe-Nine-Charches (Guinea Fowls); T. Love (Golden-spangled Hamburghs).

PIGEONS.—*Any distinct variety.*—*Cock or Hen.*—1 and 3, H. Yardley. 2, W. Nottage, Northampton (Pouter Cock). 4, T. Chambers, jun. 5, W. Nottage (White Pouter Cock and Carrier Cock); 6, T. Chambers, jun. 7, L. Watkin, Northampton (White Pouters); W. W. Watkin, Northampton (Pouter Cock); H. Yardley.

Mr. Edward Hewitt, of Sparkbrook, Birmingham, was the Judge.

WELCHPOOL POULTRY SHOW.

IN a district long reputed for the general excellence and most abundant supply of poultry of all kinds for table purposes, it was natural to expect to find a large competition of valuable poultry; nor were these expectations at all disappointed, for decidedly the best *Turkey* points and *Goslings* of this year that as yet have put in an appearance were shown at Welchpool. It was quite a feature of the Show that all the useful varieties were largely and well represented, but of such more strictly fancy varieties as *Hamburghs* the less we attempt to criticise the better. Some Light *Brahmas* quite took the lead in a class open to both breeds. The *Aylesbury Ducks* mustered strongly, but a class for *Game* cocks was composed of birds that appeared to visitors almost as though they had miraculously escaped from the hands of the cook at the last moment, so denuded were they by their natural moult of their feathers; but the *Game* chickens were in the highest plumage. Fine weather brought with it pecuniary success.

GAME.—1 and 2, P. A. Beck, Gillsfield, Welchpool. 2, P. Pugh, Welchpool. 3, 1 and 6, E. Pugh, Welchpool. 2, W. Powell, Battington Hall. 3, P. A. Beck.

DORKINGS.—1, J. Sayce, Welchpool. 2 and 3, Mrs. R. E. Jones, Cefn Bryntalech. 4, Mrs. Bayard, Gwernydd, Berriew.

SPANISH.—*Black.*—1 and 2, E. Williams, Caerhowell Farm.

HAMBURGHs.—*Gold or Silver-spangled or Pencilled.*—1, T. G. Jones, Llan-saintffraid. 2, T. Bridgewater, Montgomery.

BRAMA POOTRA.—1 and 2, Mrs. M. P. Ffoulkes, Llandysil Rectory. 3, G. Morgan, Newtown.

ANY OTHER VARIETY.—1, Mrs. Bayard, Gwernydd, Berriew. 2, T. Morgan, Bhaball, Kerry.

BLACK.—*Aylesbury.*—1, J. Richards, Llantyllin. 2, W. Brick, Pen-y-glodfa, Newtown. 3, J. Jones, Varchod. 4, E. Leavon, Clitterwood Mill, Rouen. 5, I. J. Jones. 6, W. F. Delmar, Henfais.

GEES.—1, E. Owen, Berriew. 2, K. Colley, Sylfaen. 3, W. Rogers, Welchpool. 4, E. Watkin, Forden.

TURKEYS.—1, Miss Humphreys, Berriew. 2, G. Robison, Trederwen, Llandrimo. 3, Mrs. R. E. Jones, Cefn Bryntalech. 4, R. Groves, Court Calmore.

Mr. Edward Hewitt, of Birmingham, was the Judge.

"BIG EYE" TUMBLERS.

ALTHOUGH these birds are called Tumblers, those bred at the present day seldom tumble; but I am told by the old fanciers that upwards of twenty-five years ago they were noted for their performances in the air, being what is called very close Tumblers; and it was not uncommon to find specimens that would tumble inside; but of late years, as they became more valuable, they were seldom flown; and being bred more for eye, beak, and colour, they soon lost the faculty of tumbling; and I doubt if, at the present day, many specimens could be found that would tumble. They are of four colourings—black, red, yellow, and dun—the colour being more brilliant than in other varieties of the same shade—the two latter colourings are very scarce. In build they have the appearance of a cross between a Barb and a Tumbler. They are very wide across the skull, and quite flat. They have a beak somewhat like a Tumbler, but much wider at the base, and of a fleshy appearance, and not so long as that of a flying Tumbler, and always white in good specimens confined to a room; but if flown the beak will soon change in colour to a darker shade. They have a regular Tumbler eye, surrounded by a white silky skin as large as the wattling of a first-class Barb; but no signs of wattling, and very few wrinkles. Any show of wattling or colour is a sure indication of a Barb cross. They are also devoid of feathers under the beak (which is covered by the same white silky skin as round the eye), and the letter the bird the more this peculiarity is developed, but without any appearance of gullet, as in Owls. They are inclined to be loosely feathered, and often look ragged, even when in good health. They are longer, in proportion to their size, than any other Pigeon—the difference in length being mostly in the tail and flight feathers. The middle feathers in the tail are usually longer than the others; and what is remarkable in this bird, if well bred, it will usually have fourteen feathers in the tail, while all others, except the Fantail, have twelve. This great length, in comparison to their size, gives them an entirely different appearance from other Pigeons, and becomes a leading characteristic of the breed. The secondary feathers of the wing are raised above the back when at rest, as in good specimens of

the Barb. Although to an inexperienced fancier they look so much like a Barb at first sight, they have nothing in common with them, except the fact of the secondary feathers being raised above the back, and it seems impossible that they could ever have been bred from them, as some might suppose, as no breed will show a cross with the Barb sooner than they will. This cross has often been resorted to by rival fanciers, but never with success, as this eye shows the wattling and colour at once, and in most cases the two extra feathers in the tail will be lost in the first cross. I well remember, at the exhibition of the Pennsylvania Poultry Society of 1868, a strong contest between two rival fanciers of this breed; one of them had undoubtedly used the Barb cross to defeat his opponent, but without success, as in the eye and beak the signs were unmistakable, and when the feathers of the tail were counted, there were only the twelve feathers of the Barb. I have never seen this Pigeon alluded to in any work before published, neither do I know anything of its origin. None of the old fanciers can tell me where the original stock came from.

I am informed by Mr. W. Wister, our oldest fancier, that fifty years ago (methinks that some of my younger readers will think that fifty years is a long time to be a fancier), but I will assure them that Mr. Wister was quite a fancier fifty years ago, and bids fair to continue one for fifteen to twenty years to come. I think our friend Dr. Morgan will sustain me in saying that thorough fanciers seldom die young. Had I the space I would like to tell my younger readers how much Mr. Wister has done for the fancy in this country during the past sixty years. I believe he was one of the first importers of all the varieties of Game Bantams, also of Game, and many kinds of fancy Pigeons, as well as dogs. He has never changed from his boyish fancy, and to-day he would drop one of his most difficult financial problems to admire a good Short-faced Black Mottled or Almond Tumbler; and of all the stock he has imported and bred in that time I do not believe he ever sold a specimen from his yards, but many hearts have been made glad by his generous gifts—the writer of this article among the rest. But I am getting away from my subject. Mr. Wister informs me that he remembers the "Big Eye" well for the past fifty years. When he first saw them they were bred by an Englishman by the name of Eggleton in this city, and for years afterwards they were known by the name of Eggleton Blacks, this being the prevailing colour. At this time they were excellent tumblers, and often had six white flight feathers—a peculiarity they have since entirely lost—and which gave them a very pretty appearance when on the wing. Mr. Wister can throw no light on the actual origin of the bird, but it is more than probable that they came from England or the East *via* Germany, as many of the old German merchant settlers imported largely in days gone by. The remnants of many fine strains of different varieties of Toy Pigeons are yet to be occasionally met with among the dealers of this city. If any of our fanciers can give any further information about the "Big Eye" not contained in the above article we shall be pleased to give it to our readers.—J. M. WADE.—(*American Poultry Fancier*.)

[Both the description and the portrait of this bird lead one certainly to the conclusion, in spite of the protest to the contrary, that it is the result of a cross between the Barb and the Tumbler: indeed, I have seen exactly such birds produced by this cross. I have seen them in a bird shop and in a loft, and I cannot regard them as other than a Barb spoiled or a Tumbler spoiled. It is perfectly possible that they may, or may have, tumbled, as the worst-shaped Tumblers have this property rather than the best. Whatever our cousins across the Atlantic may do, I always strongly advise fanciers in England to breed to perfection, if possible, the grand old varieties. Occasionally, as in the Satinette, a new variety comes up which is of beauty and value; but looking back upon our shows for a dozen years or so, how many new Toys, German usually, have appeared a few years and then disappeared!—WILTSHIRE RECTOR.]

THE QUEEN BEE.

IN CROSSING over one of our heather-clad moors in Yorkshire on the 8th inst., hearing a great buzzing sound, my attention was rivetted upon a drone bee with a queen bee. The drone so completely covered her majesty that I was unable to see her very distinctly. When I first saw them they were 3 feet from the ground, in equilibrium, slightly varying, and then they came very gradually to the ground, where they remained but a second; then they moved heavily away a short distance, the noise of their wings never ceasing even whilst on the ground. Following them, I again saw them gradually alight as before; and on coming near for further inspection, through the stupidity of my dog—for I was at the time hampered with both pony and dog—I lost sight of them altogether. It was about half-past twelve o'clock when this occurred, the day being warm and sunny.—W. C.

CANKER IN PIGEONS.—Rub the affected part with sweet oil, and then apply as much calomel as will lay on the extreme

point of a penknife to the part. Renew the application twice a day until the lumps may be removed by the hand. If the bird is attacked in the throat it may be applied with a feather dipped in oil. A pennyworth of calomel will suffice to cure a dozen birds. Or mix one drachm of carbolic acid and half an ounce of glycerine together, apply with a feather once or twice daily. I was recommended to try this myself for either Pigeons or poultry, and I found it soon effected a cure.—F. S. H., *St. Austell*.

BRITISH BEE-KEEPERS' ASSOCIATION.

WE cannot conclude our review of the Show without a few remarks on the honey, to which no less than nineteen classes were devoted—too many in our opinion, as we can see small merit in obtaining supers of honey under 14 lbs. weight, to which the Committee devoted four classes, embracing twelve prizes. The prize schedule for honey seemed to be in three divisions—*i.e.*, straw, wood or straw and glass, and glass only, each division being again subdivided into classes—as above 20 lbs., above 14 lbs. and not exceeding 20 lbs., and above 10 lbs. and not exceeding 14 lbs. The Committee in their next show schedule would do well to consider if weight combined with quality should not alone govern the award of prizes in each division, giving such a number of prizes as the funds permit.

The display of honey was certainly grand. Foremost was a magnificent display from Ayrshire, in the well-known Stewarton boxes; both honey and comb were nearly colourless, doubtless obtained from white clover. Much to be commended was the admirable manner in which the canny Scots had brought it to the Show, a distance of four hundred miles. We look upon the shallowness of the boxes as its salvation. Between each comb its senders had placed a folded sheet of newspaper, and the fold tightly packed again with paper, more of the same material covering all up. Mr. J. Anderson had, we were told, so brought more than thirty boxes without an accident. Certainly they taught the southerner a lesson here, for many of the finest English supers arrived too damaged to unpack. Conspicuous on the table were some beautiful Woodbury supers from Mr. Cowan, of Horsham, from 38 lbs. to 78 lbs. weight. The exhibitor in his loving care had covered them with a glazed frame screwed down, which was particularly unfortunate, as the Judges disqualified them on the ground that they could not taste the honey to insure that it was genuine, and not merely syrup stored by the bees. This dictum we look upon as a grave mistake, more especially as no such rule was in the prize schedule. Mr. Cowan's harvest from his bees this year was, we should think, the largest on record; it amounted to 707 lbs. of super, and 200 lbs. of extracted honey from twelve stocks of bees.

The three classes for straw supers only obtained six entries, for which nine prizes were offered! Two only exceeded 20 lbs. Straw must certainly surrender its ancient honours to wood and glass. Wood, and wood in combination with glass or straw, mustered sixty-two entries, twenty-eight of which were over 20 lbs., the heaviest 76 lbs. Very curious it was to note the diversity of taste in the way of shape and material for honey-receptacles. One reverend gentleman had even persuaded his bees to work in an old cheese-box, which was supplemented over a central aperture by a bell-glass.

The pride of the glass supers, numbering thirty-five, was a beautiful bell exhibited by Mr. G. Fox, containing 50 lbs. nett of comb and honey; nearly every cell seemed filled and sealed. It held its own against all comers, taking first prize; second, Mr. T. W. Cowan; third, Mr. S. Thorne. Twelve exhibits in this class exceeded 20 lbs. Placed on the table "not for competition," appeared the prize glass of Manchester Show, 1873, containing 87 lbs., but which its owner acknowledged had been obtained by feeding his bees with unlimited syrup. This glass attracted some considerable attention, as it had caused not a little discussion in the bee-keeping world. The class for table display of honey in comb was pretty well monopolised by the North Britons, who took first and second prizes; the third being withheld.

The entries for run honey in glasses were not numerous, and the variety of hues it showed seemed incomprehensible to the general public, who could not understand why some should be the colour of pale sherry, and others nearly as dark as treacle. The smaller glasses, however, of all shades were eagerly bought on the third day of the show. Cottagers' classes monopolised fourteen prizes, but only twenty-two entries were made. The Committee, however, anxious to give encouragement here, directed all the prizes to be awarded, although the Judges had at first withheld half.

We could have wished to see the "sold" ticket affixed more freely, but can well understand that a person who can afford to give £3 or £4 for a box of honey may rightly object to the trouble of taking it home, or standing the risk of breakage by railway porters.

On the 10th inst. the British Bee-keepers' Association held a meeting at the Crystal Palace to elect officers for the ensuing

year. The chair was taken by the Hon. and Rev. H. Bligh. The Chairman congratulated the meeting upon the successful progress of the undertaking thus far, and hoped that it would not be the last, as it was the first, year of such prosperity. He attributed their success to the strenuous exertions of the organisers of the Exhibition, and to the publicity given to it by those to whom we looked for information in this country. Sir John Lubbock had consented to act as President, and the Hon. Secretary, Mr. John Hunter, mentioned that the President had promised to subscribe what sum might be wanting for the expenses of the Exhibition. Mr. C. N. Abbott was elected Treasurer, and a list of Vice-Presidents was adopted, which included the names of Mr. Bligh, the Chairman, Lord Clifton, the Hon. and Rev. A. Legge, the Hon. R. C. Trollope, Sir Robert Biscoe, Messrs. Melladew, Symington, Hooker, Raynor, Carr, Cheshire, Filleul, Pennell, and other well-known bee-masters. The following resolutions were passed:—

1. That the name of the Association be the **BRITISH BEE-KEEPERS' ASSOCIATION**.

2. That its objects shall be for the encouragement, improvement, and advancement of bee-culture in the United Kingdom, particularly as a means of bettering the condition of cottagers and the agricultural labouring classes, as well as the advocacy of humanity to the industrious labourer—the honey bee.

3. That its officers shall consist of a President, Vice-Presidents, General Committee, from whom shall be selected an Acting Committee not exceeding seven, Secretary, and Treasurer; the whole of whom shall hold office for one year, and be eligible for re-election.

4. That the management of the Association shall be vested in the Acting Committee, of which the Secretary and Treasurer shall be *ex-officio* members.

5. The annual subscription of members shall be 5s., due and payable on the first day of May.

6. The Committee shall cause to be held an annual apianian exhibition, at a time and place they may deem most suitable to the interest of the Association and its objects, and adopt all such things as they believe will most conduce to extend and improve a knowledge of bee-keeping so far as the funds of the Association will permit, provided always that they shall in no case contravene a rule made in General Meeting.

7. That an ordinary General Meeting shall be holden once in each year, when the officers for the ensuing year shall be elected, and questions of government of the Association be discussed and resolved upon. An extraordinary General Meeting may be called by the Acting Committee at any time, and shall be called by the Secretary within fourteen days upon receipt of a requisition signed by any ten members of the General Committee, stating the nature of the business for which the General Meeting is to be called.

8. That as soon and so far as the funds of the Association will permit the Committee will endeavour to carry out the objects of the Association by means of lectures, meetings, the circulation of suitable books, certifying and sending out experts as qualified teachers and examiners of apiaries; exhibition and circulation of hives, of apianian apparatus, &c.; to spread a knowledge of all improvements and best possible methods of bee-keeping, and of the most profitable use and disposal of bee produce; also to establish a model apiary and an apianian museum and honey market, assist in the formation of provincial clubs affiliated with the Association, and generally to do all in their power for the advancement of apianian science.

BEE-KEEPING IN HAMPSHIRE.

ABOUT eight years ago I thought I should like to be able to tell the cottagers here how to manage their bees, without every autumn that wholesale and awful destruction of these wonderful little workers—in this neighborhood not by thousands merely, but by bushels and bushels. Accordingly I made myself acquainted with all I could possibly on the subject from all sources at my disposal. I concluded my plan should be wooden boxes 14 inches by 14 by 10, 1½-inch pine, with holes at top for feeding and supering. Driving was not in my thoughts, but the power of preventing swarming at will, and large bell-glasses full of pure honey every season were. I need not tell you I did not get either, although I soon worked-up a fine lot of healthy stocks from two good stocks purchased from cottagers. "How is swarming to be prevented?" was the common question. "Give the bees a room." "What's the use of that when bees will swarm from the roofs of houses and large hollow trees? And see what combs they make in such places. Why, I once took enough out of a roof to fill the old ooman's biggest washing pan besides what was wasted, as 'twas runnin down my elbows all the time; and jes come and see what I gets out of one of my bushel hives, for I've got um what'll hold more than a bushel o' tates." The last question and words were from a very successful old bees keeper near here now no more—one of those men who could examine his bees with bare arms, bare chest, and bare head, and they seemed to like his coming. Working in the fields all the

day, he would return in the evening and look round the garden hedges to hive what swarms were hanging there—mark this, and add to it the sulphur pit in autumn; and yet this man succeeded in obtaining large quantities of honey most years. How was it? Who can doubt that it was the swarming system and the hive that would hold "more than a bushel of tates" that did it?—the old-fashioned cottagers' system now put right and so ably advocated by Mr. Pettigrew. I say put right—that is, securing the 4-inch hole at top and the top flat, and the plan of driving and uniting, and add to that artificial swarming. This poor man managing his bees under such difficulties has taken more honey from one of his bushel hives put down with a swarm only four months before than I have in all the supers I ever put on my boxes.

About two years since I changed my plan. Having sold all my stock-boxes and all their belongings, I purchased four stocks once more from the cottagers in wretched hives, still the best I could get, and offered at our next cottagers' show 7s. 6d. and 2s. 6d. for the best and second-best straw hive, diameter 17 inches, depth 12 inches, flat top with hole 4 inches. This stimulated the men to make their first; now we can get good strong straw skeps made by them during the long winter evenings, and earning many a pound. The best hands will not be able to execute all orders during the coming winter, so great is the demand for this class of hive. From my four stocks I obtained four first and two second swarms, and last autumn I purchased at a sale twelve stocks at 3s. 6d. each, mostly in a starving state. These I fed with a half-hundredweight of sugar boiled with fifty-six pints of water, and saved them all, and gave them a little more in spring last, which set them to work in good earnest. By April, from different causes, out of my twenty-two stocks I lost six. The small black-headed tit worked some of them very hard last spring; one or two were robbed by bees and so killed. However, from my sixteen remaining I obtained twenty-six swarms, which I hived and united into seventeen hives. During the summer many a pair of old sparrows fed their young from my bee hives and kept their own coats very sleek, and sometimes I had occasion to be suspicious of starlings and swallows, both of which I have always encouraged about my house. A few weeks back, having received Mr. Pettigrew's good advice, being anxious to get rid of my small and dirty old hives I drove eighteen stocks, and united them to the bees in fourteen 18-inch hives. I got about 130 lbs. of very pure transparent run honey, carefully avoiding any pressure, as many of the combs were black and blocked up with pollen, and the hives were rotten. I threw the broken comb into water and left it to soak a few hours, washing all the remaining sweet out possible. I strained it and added a little sugar, and boiled up once; with this I fed my united bees from large bottles. Nothing could be more gratifying than to witness the hearty manner in which they all went to work to take it down—no disagreeing, but that happy roar. I must mention one exception, where I omitted using the minted syrup. The day after uniting this stock a terrible war raged, and I think most of the strangers were killed. It will be seen that since the spring I have united about forty swarms and stocks, which are now in fourteen 18-inch hives, for ten of which I have bought 100 lbs. of lump sugar, which I think will take them all through the winter in good style.

I have driven and united numbers of stocks for the cottagers during the last month; they now manage it for themselves and neighbours to their great delight. To one man it has been the means of saving at least twenty stocks, all of which were condemned to the pit three weeks ago. Another heard of two to be smothered; he quickly borrowed my dress, gave the owner the hives and contents, and secured the bees to himself.

And now, sir, if my story is not already too long, I have a question to ask you or some of your correspondents. How was it that at the Crystal Palace Show lately held the cottager, the class above all others in this country who sends the greater weight of bee produce into the market, was almost absent? for however barbarous their system may from all ages have been, it claims one merit—simplicity. Deprive it of the sulphur pit, the paltry small hive with the close top worked up to a point, and tending rapidly to a point at the bottom, and add the artificial swarming and feeding by the quart or gallon—in short, the very teaching Mr. Pettigrew is giving, and surely we have a system by far the least expensive—the system for the poor man, if not for the fanciful, but surely one that should be well brought out at the great show of the year if it is, as I think it should be, a national one.—W. I. C.

DRIVING BEES AT THE CRYSTAL PALACE.

I DESIRE to enter my earnest protest against a repetition of one feature in the recent bee show. I refer to the driving of bees in the gallery before a well-dressed crowd. As an exhibition of the humane method of keeping bees it was a monstrous folly. The bees being brought to a strange place, 50 feet above the level of the garden, and there driven, necessarily were not able to distinguish their own homes, they consequently fought

violently, and the ground was hestrewn with thousands of victims. I have made some swarms and turn-outs this year, and by following the directions laid down in Mr. Pettigrew's book I generally manage my work without killing half a dozen bees. If this can be done by an amateur of one year's experience, it may be worth the consideration of the professors of the art whether a repetition of their singularly painful performances should not be omitted next year.—BEATEN BUT NOT DISMAYED.

"PETTIGREW'S THEORY OF EVAPORATION REFUTED."

SOME days after the Crystal Palace Exhibition was closed I received a letter informing me that the words above, written in conspicuous characters, appeared on a table beside a bottle of honey at the Show. Not having a theory of evaporation, and not knowing anyone of my name that had one, I ventured to write to Mr. Hunter, the Secretary, to ascertain whether I had been rightly informed. Mr. Hunter has very kindly told me that the paper with these words "was published." He thinks the "exhibit was legitimate, but certainly should not be made in an offensive manner." He has given me the name of the gentleman who placed the paper on the table, but assures me "that the Committee as a body had nothing to do with the matter." I readily accept his explanation.

I have no theory to propound, and what I know on the question of crude and perfect honey was well known by many apiarians before I was born. I was taught it before I was eight years of age, by very experienced bee-keepers. For fifty years I have had ample opportunities of seeing, tasting, and handling both crude and perfect honey. The truth of the lesson taught me in early life has been confirmed a thousand times. Some three or four months ago I found in the works of Kirby and Spence, that they believed that honey undergoes a change in the bodies of bees. I will not enter into a controversy of any kind with the gentleman who placed the paper on the table at the Crystal Palace. I have no "theory of evaporation."

With a view to convince others that honey is perfected by bees, I extracted two bottles of crude honey from two hives about three months ago. It had been gathered into the hives but not reswallowed, or made into honey perfect. Four eminent medical doctors of Cheshire, and almost all the apiarians who have visited this place during the last three months, have tasted and examined it. They find and say that it is the pure nectar of flowers, but very different in taste from real honey. I took leave to send a bottle of it to the Editors of THE JOURNAL OF HORTICULTURE two months ago. I have still a small bottle of it left, which I should like to send to one or more of the Judges at the late Show, to taste and examine. No process of evaporation or artificial treatment will ever give it the flavour of honey proper.

I will now make a proposal, which I hope will be considered fair and honourable to all parties. I do it in the interests of truth and without ostentation. It is this—That I will undertake to extract crude honey next summer from the hives of any gentleman living within fifty miles of Manchester, in the presence of witnesses, and hand it to competent and trustworthy persons, and if they succeed by any artificial process in converting it into honey proper, I will give £5 to be offered as an extra prize at the next Crystal Palace apiarian fête, provided that those who differ in opinion from me on this question will give £5 each towards the same object in the event of failure. If a more fair and satisfactory proposal be made I shall be glad to accept it. If the proposal be accepted I hope that all parties will act in a manly spirit, and avoid the use of offensive personalities.—A. PETTIGREW.

A VALUABLE RECIPE.—The *Journal of Chemistry* publishes a recipe for the destruction of insects, which, if it be one-half as efficacious as it is stated to be, will prove invaluable. Hot alum water is a recent suggestion as an insecticide. It will destroy red and black ants, cockroaches, spiders, chintz bugs, and all the crawling pests which infest our houses. Take 2 lbs. of alum, and dissolve it in three or four quarts of boiling water; let it stand on the fire till the alum disappears; apply it with a brush while nearly boiling hot, to every joint and crevice in your closets, bedsteads, pantry-shelves, and the like. Brush the crevices in the floor of the skirting or mop boards, if you suspect that they harbour vermin. If, in whitewashing a ceiling, plenty of alum is added to the lime, it will also serve to keep insects at a distance. Cockroaches will flee the paint which has been washed in cool alum water.

PRESERVATION OF ESSENCE OF CITRON.—The addition of 2 ozs. of water to each pound of essence of citron assures its preservation, and the agreeable odour is retained for many years; the water, in falling to the bottom of the containing vessel, carries with it the mucilaginous matters which favour the resinification of the essence.—(*Pharmacist.*)

OUR LETTER BOX.

DEATH OF HEN (M. R. S.).—Her liver was severely ulcerated. No treatment could have saved her life.

COCHINS AT SPALYBRIDGE SHOW.—The second-prize chickens shown by Mr. Crabtree were bred by Captain Heaton. We correct the error in our report, because we know that the Captain covets the credit of being a successful breeder more than that of being a winning exhibitor.

WOLDSINGHAM POULTRY SHOW.—Mr. W. Younghasband informs us that the first prize for Game chickens was awarded to him.

DIARRHŒA IN YOUNG TURKEYS (J. R.).—The scouring of your Turkeys may be cured at once by giving some food made of barley, pea, and bran meal, mixed with a little pounded chalk and slaked with water. The swelling of the head is more serious. It is the commencement of a disease known only during the last few years. It attacks the head, eyes, throat, and mouth; the latter is generally extensively lacerated. The treatment usually is to feed on bread and ale, to give two pills of camphor, each as large as a horsebean, till there is improvement, and to rub the mouth with a strong solution of tar. The cause generally is that the weather has been cold and wet, or that the pouls have been allowed to wander about in the morning while the white frost is on the grass. At this time of year keep them shut-up till the sun is high enough to dry the grass. When there is neither frost nor dew let them out early.

HIVES (W. J. C.).—A series of notes on hives, their special objects, size, shape, and materials, will appear in our columns.

DAMSON WINE (E. L.).—We published a recipe in our Journal on the 3rd inst.

METEOROLOGICAL OBSERVATIONS,

CAMDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W.; Altitude 111 feet.

DATE.		9 A.M.				IN THE DAY.								Rain.
1874. Sept.	Barom. at 32° and Sea Level.	Hygrome- ter.		Direction of Wind.	Temp. of Soil at 1 foot.	Shade Tem- perature.		Radiation Temperatre						
		Dry.	Wet.			Max.	Min.	In sun.	On grass					
										deg.	deg.	deg.	deg.	
We. 16	29.015	69.8	58.1	W.	57.2	71.8	51.5	114.8	48.3	—	—			
Th. 17	29.881	52.5	51.0	N.W.	68.0	69.8	50.9	98.3	50.9	—	—			
Fri. 18	29.970	56.7	53.8	S.W.	56.6	65.0	44.0	17.1	42.0	—	—			
Sat. 19	30.072	55.9	51.1	S.	56.1	67.2	43.3	113.0	42.1	—	—			
Sun. 20	29.954	61.0	55.2	S.W.	57.0	72.3	51.4	111.3	45.2	0.093	—			
Mo. 21	29.665	65.2	61.8	S.	58.9	69.6	57.6	98.0	55.1	0.036	—			
Tu. 22	29.861	61.0	55.2	S.	58.0	68.1	52.6	112.7	50.0	0.019	—			
Means	29.917	59.0	55.2		57.4	67.8	50.0	107.9	47.7	0.078	—			

REMARKS.

16th.—Fair but dark early; fine by 9 A.M.; fair all day, but dull; sun bright at times.

17th.—Rather dull, though fair all day; gleams of sun occasionally; and fine night.

18th.—Hazy early, but soon cleared off, and was a pleasant day and night.

19th.—Fine morning and pleasant day, though not particularly bright or warm.

20th.—Fine morning; very bright at noon, cloudy after; and rain at 10 P.M.

21st.—Hazy at 8 A.M., fine at 9, and till the afternoon, when there was a sharp shower; a fine evening.

22nd.—A very fine forenoon, but showery in the after part of the day; wind rather strong.

Rather cloudy, and unsettled weather; the mean temperatures very slightly above that of last week.—G. J. SYMONS.

COVENT GARDEN MARKET.—SEPTEMBER 23.

TRADE still keeps quiet, and the late rains have brought in a better supply of vegetables. Prices generally lower.

FRUIT.

	a. d. s. d.		a. d. s. d.
Apples.....	sieve 1 0 to 1 6	Mulberries.....	½ lb. 1 0 to 0 0
Apricots.....	doz. 0 0 0 0	Nectarines.....	doz. 3 0 6 0
Cherries.....	½ lb. 0 0 0 0	Oranges.....	½ 100 12 0 24 0
Chestnuts.....	bushel 0 0 0 0	Peaches.....	doz. 3 0 10 0
Currants.....	sieve 0 0 0 0	Pears, kitchen.....	doz. 0 0 0 0
Black.....	do. 0 0 0 0	dessert.....	doz. 1 0 3 0
Figs.....	doz. 1 0 2 6	Pine Apples.....	lb. 2 0 6 0
Filberts.....	lb. 1 0 1 6	Plums.....	sieve 8 0 4 0
Cobs.....	lb. 1 0 1 6	Quinces.....	doz. 0 0 0 0
Gooseberries.....	quart 0 0 0 0	Raspberries.....	lb. 0 0 0 0
Grapes, botthouse.....	lb. 1 6 0 0	Strawberries.....	½ lb. 0 0 0 0
Lemons.....	100 8 0 16 0	Wauanas.....	bushel 10 0 16 0
Melons.....	each 2 0 6 0	ditto.....	100 1 0 2 0

VEGETABLES.

	a. d. s. d.		a. d. s. d.
Artichokes.....	doz. 3 0 to 3 0	Lettuce.....	doz. 1 0 to 2 0
Asparagus.....	½ 100 0 0 0 0	Mushrooms.....	potlie 0 2 3 0
French.....	1 0 0 0	Mustard & Cress.....	punnet 0 2 0 0
Beans, Kidney.....	½ sieve 1 0 3 0	Onions.....	bushel 3 0 5 0
Broccoli.....	bushel 0 0 0 0	pickling.....	quart 0 6 0 0
Beet, Red.....	doz 1 0 3 0	Parasley per doz. bunches	2 0 4 0
Brussels.....	bunch 1 1 6	Parsnips.....	doz. 0 9 1 0
Cabbage.....	doz. 1 6 2 6	Peas.....	quart 1 0 1 6
Caulicums.....	½ 100 0 0 0 0	Potatoes.....	bushel 2 0 4 0
Carrots.....	bunch 0 1 0 0	Kidney.....	do. 3 0 5 0
Caninflower.....	doz. 3 0 6 0	New.....	½ lb. 0 0 0 0
Celery.....	bunch 1 2 0 0	Radishes.....	doz. bunches 1 0 1 6
Coleworts.....	doz. bunches 2 6 0 0	Rhubarb.....	bunch 0 9 1 0
Cucumbers.....	each 4 0 8	Salsify.....	bunch 1 0 0 0
pickling.....	doz. 0 0 0 0	Scorzonera.....	bunch 1 0 0 0
Endive.....	doz. 2 0 0 0	Sea-kale.....	basket 0 0 0 0
Fennel.....	bunch 0 8 0 0	Shallots.....	lb. 0 6 0 0
Garlic.....	lb. 0 6 0 0	Spinach.....	bushel 2 0 4 0
Herbs.....	bunch 3 0 0 0	Tomatoes.....	doz. 0 6 2 0
Horseradish.....	bunch 3 0 0 0	Turnips.....	bunch 0 4 0 0
Leeks.....	doz. 0 3 0 0	Vegetable Marrows.....	doz. 1 0 2 6

WEEKLY CALENDAR.

Day of Month	Day of Week	OCTOBER 1-7, 1874.	Average Tempera- ture near London.			Rain in 43 years.	Sun Rises	Sun Sets.	Moon Rises.	Moon Sets.	Moon's Age	Clock after Sun.	Day of Year.					
			Day.	Night.	Mean.									Days.	m	h.	m.	h.
1	Th	Pheasant shooting commences.	63.4	44.7	54.1	21	2	46	37	45	32	8	43	1	21	10	21	274
2	F		64.4	43.9	54.1	19	4	6	35	5	33	9	45	2	(10	40	275
3	S		63.7	41.5	52.6	16	6	6	33	5	45	10	29	3	23	10	58	276
4	SUN	18 SUNDAY AFTER TRINITY.	63.7	42.4	53.1	21	7	6	30	5	morn.	59	3	24	11	16	277	
5	M	Royal Horticultural Society, Fungus Show [and Committee Meetings.	60.5	40.3	50.4	21	9	6	28	5	3	0	21	4	25	11	34	278
6	Tu		61.8	41.2	52.5	22	11	6	26	5	20	1	36	4	26	11	52	279
7	W		63.7	43.4	53.6	21	12	6	23	5	35	2	49	4	27	12	9	280

From observations taken near London during forty-three years, the average day temperature of the week is 61.0°; and its night temperature 42.8°. The greatest heat was 89°, on the 5th, 1834; and the lowest cold 25°, on the 5th, 1855. The greatest fall of rain was 1.05 inch.

PANSIES AND OTHER VIOLAS AS GARDEN PLANTS.

BOTANICALLY speaking there is no distinction between Pansies and Violas, yet by custom and adaptability to a particular purpose there has arisen a popular and acceptable definition and designation of a different class of members of the same old family of plants. Violas, or what are popularly known as such, are characterised by a dense close habit, blooms below medium size, very abundant, and long-lasting. They will stand more heat and drought than the indigenous English type *V. tricolor*, the homely Pansy, probably traceable by an infusion of alpine blood communicated in hybridising with the once-famous and still useful *Viola cornuta*.

Violas are a very gay, easy, and hardy class of plants, at home anywhere. They have rapidly improved in colour and size of bloom without deteriorating in continuity. *Viola cornuta* Perfection, Magnificent, Sensation, and Queen Victoria are all examples of this. These are very rich in colour, free, and telling in spring and summer garden decoration, either in lines, beds, or mixture with other flowers. They are amongst the most useful plants that an amateur lacking glass convenience, and not able to make large purchases, can grow to make his home plot gay and interesting.

This form of Violas as a class will prove most effective in masses or unbroken lines of colour. Some of them, however, are by the intrinsic merits of individual blooms worthy of a place in the mixed garden, where, as a rule, nothing should have a place but what is good in itself, and will bear the test of scrutiny by the eye of a florist. One of the most useful and generally recommendable is the well-proved *Viola Perfection*, not that it is better than some of the others, nor, indeed, so good, but because it combines merit with cheapness it is worthy of the attention of the great mass of garden lovers who cannot appropriate a large outlay to the purchase of plants in quantity. The glossy mauve blue of this, with its close habit and profusion of bloom, will make a mark in any garden, and being plentiful, it can be had by the dozen, hundred, or thousand at a cheap rate. It is not an early spring bloomer, but is lasting.

To get a stock easily, the best plan is to purchase plants or cuttings now. They are plentiful, and in the best order for striking at this season. They can, moreover, be topped and struck again, and make fine blooming plants for next year. *Viola Magnificent* is of precisely the same nature as the above, but is richer in colour, and, being scarcer, is dearer; withal, I do not find it quite so free as its prototype. *Viola Sensation* is new, earlier than the preceding, and very fine. There is also *Viola Queen Victoria*, which carries a fine, shapely, high-coloured bloom. I have seen, but not grown, these, and will say no more than that they should be added to every stock, and this is the best time to do it, and far preferable to waiting, as is commonly

done, until the usual time of purchasing bedding plants in May.

Another promising and very distinct variety of *Viola* I find in *The Tory*. It was clothed with bloom in April, and so it has continued every day since. It is a fine bloom, of circular outline and good substance, of a deep blue colour. It emanated from Dicksons, of Edinburgh. I am considering whether I dare venture to post a cutting or two to Mr. Peach, but I am afraid the plant is not in his line. It is good. I have yet another fine telling blue, which most people walk up to and examine. It hails from the north. I have put in every sprig of a cutting from the solitary plant which is called *Alpha*, and I have hopes of extending to it the same measure of respect which I bestow on *Laxton's Pea* of the same advanced designation.

Here I leave the blue section of Violas, one and all of which are worthy of culture by all who can appreciate hardy plants, and who want a colour, with habit, which they cannot get in anything else to give the same effect.

Proceeding to the yellow bedders of this class of plants we find bright floriferous varieties, differing more in name than character. Most or all of them are crosses with the small *V. lutea* and some one or other of the large yellow Pansies, and combine the perpetuity of the one with the larger petal of the other. *Sandbeck Gem* and *Pride of Rufford* carry larger blooms than the *Cliveden*, and are very early, free, clear, and good. I can speak well also of another variety not yet common, which was the first to bloom, and has continued without any signs of failure through the tropical term of sunny weather of the passing summer—it is *Dicksons' Golden Gem*. It has been truly a mass of gold, the brightest and freest thing in the garden under either sun or rain. Its blooms are medium-sized, of no particular individual excellence, but for massing it is one of the most telling of the many effective varieties. Where *Calceolarias* refuse to prosper, and a bright yellow is wanted, *Golden Gem* may be tried with a fair amount of confidence.

What may be called the Pansy proper, *Viola tricolor*, may now have a meed of attention. It is not often it is deemed worthy of public mention. It is one of the flowers almost kicked-out of the garden by the tyranny of fashion. But fashion cannot annihilate, and this and other garden flowers have lived to be welcomed back to gardens. The greatest admirers of the Pansy are found amongst old people, and—has anyone ever noticed it?—young children. The aged recognise it as an old friend, loved in childhood and cherished still. The young, who know not what fashion is, receive the impress of its bold form and rich beauty, and in their innocence and still free minds admire. Turn a bevy of young children into a garden of flowers, and they will, as if by instinct, pick out the Pansies. Pansies and Primroses are names of plants first lisped and remembered. Other names may in after years be learnt and forgotten, but these old names are deeply engraved on the memory, and live to the end. The Pansy is a homely flower and a flower of home. It is quiet yet cheerful. If it savours of humility it is not

destitute of a certain pose of dignity, and reminds one somewhat of a pensioned-off housekeeper, who "rose from nurse, and was in the family for years;" and is not that a pleasing sight, speaking as it does of quiet and content? Pansies speak of this. See them where we may, they shadow from without the stability and easy comfort of the home within. They are not indicative of grandeur and gaiety, but rather of quiet home enjoyment which mayhap the grand and the gay not unfrequently long for. Let them, then, have a word of recognition, let them not remain in obscurity for ever. Their place is in the mixed garden, wherever that garden may be situated. It may have a place, as it ought to have, in the nobleman's demesne; it may be, as it often is, in the snug secluded parsonage; it should be, because the best suited, a part of the appendage of the British workman's home: but wherever the mixed garden is, there let Pansies be.

I am not going to enumerate varieties, or treat the Pansy now as a florists' flower, it is as a garden plant that I prefer to view it; yet I cannot help asking how many finer things have we, richer and of more real beauty than Pansy Imperial Blue, and what more bright than the glowing Cloth of Gold? How pure and clear is the early-blooming Blue King, and how intense and massive the later-flowering Celestial Blue! These are self useful to grow in quantity to make a garden gay rather than to be treated as florists' flowers after the manner of the particoloured varieties. Then there is the Magpie, quaint almost as its mottled patronymic; for it only puts on its white plumage in autumn and spring, casting it again in the hot season of summer. This is a variety for every old garden; and it is admired, too, by many more people than possess it, judging by the request for cuttings by those who see it when in full feather. Then what grand, gay, wonderful varieties there are now in the fancy class! They positively make people stop to look at them, and many to stoop and measure them. I have seen three and four-year-olds do this; and if the newer kinds of the Downies and Dicksons have made any reasonable advance in size and colour, they must be wonderful indeed.

This is a very good time of the year to increase Pansies. The autumn growth will bristle at the base with rootlets, and these sprigs have only to be planted in ordinary light soil to take root and grow; but they must be pricked-in deeply, leaving only an inch of green tip out of the ground. Finer individual blooms are produced from cuttings. These should be made of fresh crisp shoots that have not bloomed, and have solid—not hollow—stems; put under a hand-light in free soil, the surface covered with grit, and watered and shaded, they will soon become plants. The covering is best removed at night for the benefit of refreshing dews—the best of stimulants to make Pansies, Celery, and Groundsel grow. But for ordinary purposes in ordinary gardens the handiest way of increase is by root-division of the young autumn growth. The divisions should be planted in a nursery bed, and when nice plants, replant where required to bloom. Yet this final planting must not be deferred until late in the spring; that is a very common and very fatal error. Pansy planting with the rest of the bedding plants in April or May is, as the common saying goes, "the road to no town;" still this is often done, and then the plants are condemned for transient blooming. It is the very way, and the very best way, to create what is so severely condemned. Plant them early, in November if possible, but not later than January, or there can be no just judgment on their merits. Plant early, plant deeply, surround them with sharp grit to tickle the slugs and make them turn their tails, stay them with sticks or pegs to keep the wind from twisting their necks, and then when the cultivator has done his duty expect them to do theirs. They are easily raised from seed sown in light soil in a shady spot in March, for blooming the same season, and in August to stand over the winter, and bloom finely in spring. In this old land of ours, the land of old homes and associations, let not the old flowers be altogether forgotten, but give them a home and habitation, and never hustle them at the dictates of imperious fashion out of the gardens of their native land.—J. WRIGHT.

NOVELTIES IN THE ROYAL GARDENS, KEW.

MESEMBRYANTHEMUM TRUNCATELLUM is flowering in the Succulent house. It is one of the most curious of the genus both in form and colour, and is also extremely rare and little known. Though introduced in 1795, it was figured for the first time in any work in the "Botanical Magazine" for January

of this year. It is nearly allied to *M. obeonellum*, but is very much larger, and the leaves are of a livid brown colour; the flowers are yellow. It may be increased, though very slowly, by division.

Cedronella cana is flowering on the Rockwork. It is a pretty suffruticose Labiate, with dark carmine-coloured flowers, and is worth a place in every collection. Though an old plant it is not very commonly cultivated. It is considered hardy, but does not always survive the winter; a few young plants from cuttings should be kept in a greenhouse or frame for the winter. It flowers very freely, and the leaves are sweet-scented. *Polygonum Brunonis* is very pretty and suitable for rockwork. It produces a tuft of oblanceolate leaves; the flower stems are erect, about 1 foot high, and terminate in racemes of pink flowers. *Omphalodes Luciliae* is producing a few flowers, though out of season. It is very rare, both as a wild and cultivated plant. The leaves are smooth and glaucous, not at all according with the usual character of the Boraginaceae, to which it belongs. The flowers present the shades of colour between pinkish purple and azure blue. It is one of the very choicest plants for rockwork. Increase is effected by careful division. In winter it should be kept rather dry, as it is liable to damp-off. A native of Asia Minor. "It inhabits considerable altitudes, attaining 8000 feet." It was figured in the "Botanical Magazine" for July of last year.

Fourcroya Selloa is in flower in the Succulent house, and has never yet been figured. *F. bommelyni*, also referred to at page 72, proves identical with *F. gigantea*, figured in the "Botanical Magazine," 48, t. 2250. *F. bommelyni* itself is quite distinct, and in many collections *F. gigantea* may be doing duty for it; cultivators should therefore take note.

COTTAGE GARDEN SOCIETIES.

Any sane person must acknowledge that cottage garden societies are doing a vast amount of good. I do not propose to dwell at present upon the good resulting from them, but to point out a few errors and inconsistencies connected with them. I will, however, merely state *en passant* that in my opinion the best results come from judging the crops as they are growing in the gardens and allotments, rather than from the collections in the show-field. I could give many reasons for this if it is at all disputed. Nevertheless, have your great shows by all means; they give so much pleasure to visitors, exhibitors, and everybody concerned, excepting secretaries and judges. Now, I ask, Is it not possible to lessen the wear and tear of mind and body these gentlemen have to undergo on the occasion of a "grand exhibition and floral fête?" The duty of officiating at a show in London, Liverpool, or Manchester, is as play compared to that of being secretary or judge at a cottage garden society's show in a country village, for although there is more to do at the large shows, it is done more systematically, and everyone knows what he has to do.

I believe the great stumbling-block of cottage garden societies is making rules which they cannot enforce. The rules should be made less harsh, and when made should be enforced to the letter. Why should it be printed in the schedules, "no produce will be received after nine o'clock," and italicised "this rule will be strictly adhered to," when everybody knows he can take in his vegetables at half-past nine or even ten? And why should the judges be summoned to attend at nine, when they cannot possibly commence their duties before eleven? It is only those who have the charge of large establishments that know the value of an hour or two in the morning, and the mortification they experience of being hurried away from home and having left something undone, merely to stand about on the wet grass for an hour or two doing nothing, and perhaps without even an introduction to one's fellow judges. You must not look inside the tents, and you must not go out of sight, for you will be wanted directly. But if your lot is hard, what must be that of the poor secretary, with all his work to do, and everybody tugging at his elbow? However, the secretary's duties only come once a year; those of a judge often come two or three times a week.

In the course of time all is ready for the judges; it is perhaps eleven o'clock or half-past, and visitors are to be admitted at one. Now, if there is one thing more than another that takes time to judge it is cottagers' vegetables; there are such a large number of exhibits, and many of them are so much alike that at first sight it seems almost a hopeless task; if, however, your brother judge is a qualified one impossibilities soon vanish, and the prizes are awarded to your own satisfac-

tion, which is the chief point. The satisfaction of exhibitors must never be taken into account; all but the first-prize men are sure to be disappointed.

Difficulties often arise from the wording of the schedule. Species are written where varieties are meant; culinary and dessert fruits are lumped together, and classes are to be determined by the shape of the fruit. For instance, at a recent important show, it was thus: "Class 61, dish of Plums, oval. Class 62, dish of Plums, round." One judge wished to give the first prize to an extraordinary dish of Green Gages, the other preferred a fine-looking culinary Plum. There was no chance of the two agreeing, and there was no time to be lost; it was finally decided to award a special extra prize to the Green Gages, and all went on smoothly. But these hitches should not occur. Would it not be well if compilers of schedules would submit a copy to some competent authority for his approval?

Another thing which deserves attention is, prizes are offered for things which are of no value, and which require neither taste nor skill to exhibit; for instance, a device in flowers. What hideous things we see exhibited and gain prizes under this name. A hard-hearted judge will say, "This is not worth a prize; these shows are intended to be educational, to elevate people's tastes." The accompanying official replies, "It is only 5s., and the poor thing has had a lot of trouble." Judge No. 2 says ditto, and the prize is awarded; the result is, the following show sees a device a little larger, a little more crammed, and altogether a little uglier than its predecessor.

I could enlarge considerably on this subject, but I trust I have said enough to draw the attention of some of those concerned. And there is just another hint I should like to give in the gentlest possible manner. It is not a good plan to have always the same judges. They should not all be local men, and those who do come from a distance should have their travelling expenses paid voluntarily, as a matter of course, and not let it depend merely on whether or not they choose to hunt-up the secretary to bid him good-bye. Such matters should not be left to secretaries. Good gardeners are too much interested in the progress of their art to refuse to lend a helping hand when required; they often put themselves to much inconvenience to do so; they do not go to shows for pleasure, but because they feel it a duty to go when called upon; and they should not be expected to give their money as well as their time and talent.—W. TAYLOR.

STRAWBERRIES AND STRAWBERRY CULTURE.

In the midst of many counsellors surely there must be some wisdom, and it gives me pleasure to see that the opinions expressed in this Journal from the Editors* and Messrs. De Jonghe and Gloede, down to the more humble, practical, working gardener, will still rise triumphant above the statements of Mr. Douglas, and that the truth disinterestedly stated will yet prevail. One or the other must have been in error. While I am thankful to those who have taken the trouble to record their opinions, I have never courted an encomium in any single instance. What interest could M. De Jonghe have had in making the remarks he did concerning Early Prolific in the number for July 20th, 1871? I never saw M. De Jonghe, never corresponded with him directly or indirectly in my life; we are perfectly unknown to each other.

M. De Jonghe, in the article above alluded to, says, "Early Prolific, one of Dr. Roden's seedlings, is a masterpiece." I must here correct my impression that the words were "a masterpiece of skill." I spoke then only from memory, but the import is as stated, and is stronger really without the addenda. He goes on to describe what he is pleased to call its good properties. These are, "Early ripening. At the present time (June 10th), though it is a late season, out of twenty-eight plants in a bed some 40 feet long by 7 wide I count twenty-three large fruit ripe and ripening; whilst on May 25th, 1870, there were several fruit ripe. I have never met with any variety which sets its fruit so freely, or ripens it so quickly, as this. Its great productiveness may be judged from the fact that on two three-year-old stock plants there are respectively five and seven trusses of flowers, and 107 berries set in the

one case, and ninety-two in the other, neither flowers nor berries having been injured by the late spring frosts. Its hardiness is sufficiently proved by what is stated above." And he adds in a postscript, "I have delayed sending this article till the present time in order to assure myself of the accuracy of my observations. I think English growers who have the two Strawberries referred to (the other being James Veitch, raised by M. Gloede) will confirm, if they have not already proved, the truth of what I have advanced." Now after such a statement as this (as perfectly disinterested as it is possible to be) from, perhaps, the greatest authority on the Strawberry in any country, I do not think I have much to fear.

Mr. Douglas goes on to say, "Does 'W. R.' think that gardeners will believe him when he says that he saw ripe fruit of Duke of Edinburgh early in April, produced with little or no artificial heat? They must have been forced Strawberries in the usual sense of the word." Of course they must. Mr. Douglas must be very ignorant of his profession if he does not know that Strawberries will force by sun heat under glass, even if there is very little artificial heat. Possibly any little heat that was given was given at night, but of this I know nothing. I can quite believe the statement of the accomplished gardener who grew the Strawberries in question, and if he happens to see these remarks he may possibly echo that statement. When I called to thank him for such a fine specimen of his productions, he observed that even finer fruit had been sent into the house, and what is more, he added it forces with so little heat; in fact (I understood him to say), it was grown in quite a cool house. I merely mentioned the subject to show the great capability of one variety over another in this respect.

With reference to the annual renewal of Strawberry beds, I have no reason to alter the views already expressed. I have no doubt that a few fine berries are grown on first year's plants, and, indeed, at one time I adopted the plan to some considerable extent; but having of late years tried the opposite plan, I have quite satisfied myself that frequent renewals are unnecessary, and, of course, lead to a great amount of extra labour. Mr. Douglas says as one of his arguments, that several plants die every year, which does not improve the appearance of the beds. I beg to inform him that my plants do not die at all, but instead of that, continue to increase in strength and productiveness for several years, as already stated. If only a few plants die, my sense of order and regularity would be so much disturbed that I should order the entire bed to be destroyed. This shows me that either the soil or the cultivation at Mr. Douglas's place is not congenial to the Strawberry, and hence his want of success in the infrequent-renewal system. If I found, too, that the plants produced only small, ill-shaped berries, though they might be numerous, I should not recommend the plan; but I do recommend it as saving an enormous amount of trouble, and as being capable of producing a large quantity of fine handsome fruit, finer and handsomer, regard being had to the quantity, than can be obtained in any other way. If the season is fair for Strawberries in general, I say to all disputants, Come and see.

If Mr. Douglas ever ventures to submit his favourite Black Prince for competition as the best early Strawberry, I hope somebody fond of this kind of excitement will oppose him with Early Prolific and Duke of Edinburgh, and give him a good thrashing. That is all the harm I wish him.—WILLIAM RODEN, M.A., M.D., *Morningside, Kidderminster.*

ELECTION OF ROSES.—No. 2.

In giving the lists for publication I also endeavour to show in some degree the relative value of the Roses in the southern and the less favoured parts of the country. Perhaps I have made the division too southerly, but it was necessary in order to give some voters northwards. The line has been drawn in such a way as to leave Norwich and Leicester north of the line. By this means I have divided the voters into twenty-nine southern and nine northern.

I have not attempted again to distinguish the value of the vote as to the best twenty and second thirty, but have simply taken each Rose as named in the fifty. I have further mixed the two classes of voters together. It will be seen that the highest possible number of votes is twenty-nine in the south and nine in the north. In the following table the two divisions are arranged side by side, so that at a glance the different position of a Rose in the north and south can be seen. In each

* The writer, before bringing out these Strawberries, took an opportunity of showing them to Dr. Hogg and several members of the Fruit Committee who happened to be at Chiswick at the time; and in the Journal of the following week the Editors kindly append their opinion to my article describing them, saying they had seen and tasted the fruit of these Strawberries, and considered them a marked improvement on existing early kinds, or words to that effect.

list there are over fifty Roses—sufficient to show what are considered the best Roses in the two divisions.

SOUTH.—Highest possible, 29.

Alfred Colomb	29
Maréchal Niel	29
Charles Lefebvre	29
Madame Rothschild	29
Marie Baumann (5)	28
La France	28
Louis Van Houtte	28
Madame Victor Verdier	28
Comtesse d'Oxford	28
Etienne Levet (10)	28
John Hopper	28
Duke of Edinburgh	28
Mlle. Eugénie Verdier	27
François Michelon	26
Marquise de Castellane (15)	26
Devoniensis	25
Séateur Vaisse	24
Pierre Notting	24
Marguerite de St. Amand	24
Mlle. Marie Rady (20)	24
Xavier Olibo	23
Dr. Andry	23
Souvenir d'un Ami	23
Camille de Rohan	23
Ferdinand de Lesseps (25)	22
Gloire de Dijon	22
Camille Bernardin	21
Souvenir d'Elise	20
Emilie Hausburg	19
Catherine Mermet (30)	19
Edward Morren	19
Dupuy-Jamain	18
Madame Willermoz	17
Abel Grand	16
Exposition de Brie (35)	15
Paul Neron	15
Madame George Schwartz	15
Maurice Bernardin	14
Madame C. Wood	14
Niphetos (40)	14
Horace Vernet	13
Victor Verdier	13
Souvenir de Malmaison	12
Général Jacqueminot	12
Fisher H. James (45)	11
Duke of Wellington	11
Madame Clémence Joigneaux	11
Duchesse de Caylus	11
Beauty of Waltham	11
Belle Lyonnaise (50)	11
Céline Forestier	11

Fifty-one in all.

NORTH.—Highest possible, 9.

Alfred Colomb	9
Maréchal Niel	9
Charles Lefebvre	9
Madame Rothschild	9
Marie Baumann (5)	9
La France	9
Louis Van Houtte	9
Madame Victor Verdier	9
Séateur Vaisse	9
Xavier Olibo (10)	9
Gloire de Dijon	9
Comtesse d'Oxford	8
John Hopper	8
Duke of Edinburgh	8
Etienne Levet (15)	8
François Michelon	8
Victor Verdier	8
Dr. Andry	8
Pierre Notting	8
Mlle. Eugénie Verdier (20)	7
Marquise de Castellane	7
Devoniensis	7
Marguerite de St. Amand	7
Mlle. Marie Rady	6
Souvenir d'un Ami (25)	6
Emilie Hausburg	6
Dupuy-Jamain	6
Exposition de Brie	6
Maurice Bernardin	6
Horace Vernet (30)	6
Mons. Noman	6
Ferdinand de Lesseps	5
Abel Grand	5
Souvenir de la Malmaison	5
Fisher Holmes (35)	5
Mlle. Thérèse Levet	5
Annie Laxton	5
Lyonnaise	5
Souvenir d'Elise	4
Catherine Mermet (40)	4
Paul Neron	4
Madame Lacharme	4
Duke of Wellington	4
Comtesse de Chabillant	4
Duchesse de Caylus (45)	4
Lord Macaulay	4
Duchesse de Morny	4
Boule de Neige	3
Madame G. Schwartz	3
Camille de Rohan (50)	3
Niphetos	3
Lelia	3
Madame C. Joigneaux	3
Reynolds Hole	3

Fifty-four in all.

Those on the north side in italics are the Roses that appeared to do well in the colder regions, the proportion of their votes from the north being mainly the cause of their position in the general list. Comparatively speaking, Annie Laxton, Lyonnaise, and Boule de Neige have the greatest proportion of votes, as, although the southern voters are more than three to one, yet the northern votes are half their total. Madame Lacharme, it will be noticed, stands well as to its northern votes. Duc de Rohan does not hold the position that the list from Morpeth suggests. North gives only one vote out of the four it receives: this is the fair proportion—one in four. It will be noticed in the southern list that only four Roses obtain the highest possible number of votes, whilst in the north no less than eleven Roses obtain this enviable position, and amongst these is one Rose—Gloire de Dijon, which in the general list is not even in the first twenty; and Xavier Olibo stands nineteenth in the twenty, that Rose also obtaining the full number of votes from the north.

I have also thought it might interest some of our readers to see how many of those Roses, which by the general voting have obtained the twenty highest positions on the poll, are named by each of the thirty-eight voters in their twenty best. Mr. Burrell heads this list by naming in his selected twenty, seventeen Roses. Rev. A. Cheales, Messrs. Cragg, R. Smith, and Hinton respectively name sixteen each. Messrs. Quennell, Cranston, Davison, Turner, Mitchell, Walter, and Cooling, name fifteen each. Rev. C. P. Peach, and Messrs. J. Scott, H. Bennett, B. R. Cant, Curtis, and Fraser respectively note fourteen; Messrs. Robson, Mayo, Curtis, Ellis, Ewing, and Durbin, thirteen each; Revs. J. B. Camm and E. N. Poehin, and Messrs. Harrison, twelve; Rev. R. N. Milford, and Messrs. Tapner, Davis, and Prince, eleven; Revs. G. Arkwright, H. Dombrain, W. F. Radclyffe, and Mr. R. W. Beecher, ten; Messrs. Burley and May, nine each; and Mr. W. Wheeler, seven. I do not think from this list that locality has much effect on the issue.

Curiously enough, in last week's number Mr. Radclyffe rather answers my remarks on the four Roses that have lost position by a single vote. He omits Marie Baumann, and gives his reasons. I cannot put myself against his authority, still I cannot help urging all beginners to try Marie Baumann, and then discard it if they can. It is truly a magnificent Rose, and though a weak grower, and hanging down its head, yet few Roses can show such a lovely countenance. It is not weak everywhere. I have shoots from the bottom this year over 3 feet—not amiss for a weak grower; and certainly with me more than several—to wit, Baronne de Maynard and Felix Genero, Roses which Mr. Radclyffe has in his list. I am anxious to lessen slightly, if I can, the stigma thus placed on Marie Baumann, and therefore I urge it everywhere a fair trial. I feel convinced that of the thirty-eight voters, three-fourths would name it in the first ten.—JOSEPH HIXTON, Warminster.

P.S.—Since writing above, I have received a letter of thanks from a gentleman who regrets the omission of Madame Vidot. That Rose has, however, been named four times, twice by amateurs—viz., Messrs. Quennell and Curtis, and twice by nurserymen—viz., Messrs. Cranston and R. Smith. This is a further drop since 1872. I then made a few remarks on this Rose, which in former years I have seen grown by others most beautifully, especially by Mr. Durbin, of Englishcombe Rosery, near Bath. Greatly to my own disappointment, I can do little with it. Most of the white and blush Perpetuals have apparently a weakness of constitutional power which unfits them for the great wear and tear of Rose life, exquisitely beautiful as they are. I know no more beautiful Rose blooms, if well grown, than Madame Vidot, Mrs. Rivers, Madame Noman, Mlle. Bonnaire, Louise Magnan, and Marquise de Mortemart. All are beautiful, and all, alas! are tender. Madame Rothschild, as a blush, is an exception.

I have also received a note from Mr. Radclyffe, adding the raisers' names to some of the Roses. I gratefully acknowledge this help, and now add them. I think this suggestion of Mr. Peach's has been admirable.

Camille Bernardin (Gantrean), Maurice Bernardin (Granger), Général Jacqueminot (Rousset), Jules Margottin (Margottin), Madame Willermoz (Lacharme), Marquise de Gibot (De Sansal), Centifolia Rosea (Touvais), Marquise de Mortemart (Liaband), Mlle. M. Dombrain (Eug. Verdier), Souvenir d'un Ami (Belot Defougère).—J. H.

SUBJOINED are the lists of the amateurs' votes, those of the nurserymen will be given next week.

MR. J. ELLIS, *Harpley, Brandon, Norfolk*.—1, Alfred Colomb; 2, Maréchal Niel; 3, Charles Lefebvre; 4, Comtesse de Chabillant; 5, Duke of Edinburgh; 6, François Michelon; 7, La France; 8, Louis Van Houtte; 9, Madame Victor Verdier; 10, Madame Rothschild; 11, Madame Charles Wood; 12, Xavier Olibo; 13, Gloire de Dijon; 14, Reynolds Hole; 15, Pierre Notting; 16, Marie Baumann; 17, Lyonnaise; 18, Etienne Levet; 19, Maurice Bernardin; 20, Beauty of Waltham; 21, Dupuy-Jamain; 22, Annie Laxton; 23, Anna de Diesbach; 24, Baron Bonstetten; 25, Captain Christy; 26, Dr. Andry; 27, Exposition de Brie; 28, Ferdinand de Lesseps; 29, Fisher Holmes; 30, Gloire de Santenay; 31, Le Havre; 32, John Hopper; 33, Jules Margottin; 34, Lord Macaulay; 35, Madame Willermoz; 36, Madame Lacharme; 37, Madame Hippolyte Jamain; 38, Mlle. Marie Rady; 39, Camille de Rohan; 40, Victor Verdier; 41, Séateur Vaisse; 42, Adam; 43, Cheshunt Hybrid; 44, Devoniensis; 45, Madame Falcot; 46, Niphetos; 47, Souvenir de Paul Neron; 48, Souvenir de Malmaison; 49, Souvenir d'un Ami; 50, Souvenir d'Elise.

MR. M. DAVIS, *Oldland Common, Bristol*.—1, Alfred Colomb; 2, Maréchal Niel; 3, Charles Lefebvre; 4, La France; 5, Catherine Mermet; 6, Perle de Lyon; 7, Devoniensis; 8, Niphetos; 9, Souvenir d'un Ami; 10, David Pradel; 11, Camille Bernardin; 12, Boule de Neige; 13, Dupuy-Jamain; 14, Comtesse d'Oxford; 15, Emilie Hausburg; 16, Etienne Levet; 17, Marie Baumann; 18, Louis Van Houtte; 19, Marie Rady; 20, Pierre Notting; 21, Souvenir d'Elise; 22, Souvenir de Paul Neron; 23, Souvenir de Malmaison; 24, Madame Bravy; 25, Madame Jules Margottin; 26, Madame Willermoz; 27, Madame Victor Verdier; 28, Madame Rothschild; 29, Mlle. Bonnaire; 30, Mlle. Eugénie Verdier; 31, Marie Van Houtte; 32, Gloire de Dijon; 33, Céline Forestier; 34, Abel Grand; 35, Anna de Diesbach; 36, Antoine Ducher; 37, Beauty of Waltham; 38, Duke of Edinburgh; 39, Edouard Morren; 40, Exposition de Brie; 41, Ferdinand de Lesseps; 42, François Michelon; 43, Général Jacqueminot; 44, John Hopper; 45, Marguerite de St. Amand; 46, Nary Frères; 47, Camille de Rohan; 48, Princess Beatrice; 49, Séateur Vaisse; 50, Visconte Vigier.

MR. J. MAYO, *Corn Market Street, Oxford*.—1, Alfred Colomb; 2, Marie Baumann; 3, Maréchal Niel; 4, Charles Lefebvre; 5, Madame Rothschild; 6, Louis Van Houtte; 7, Madame Victor Verdier; 8, Madame Hippolyte Jamain; 9, Mlle. Eugénie Verdier; 10, Mlle. Marie Rady; 11, Camille Bernardin; 12, Etienne Levet; 13, Leopold I; 14, Devienne Lamy; 15, John Hopper; 16, La France; 17, Dr. Andry; 18, Souvenir d'Elise; 19, Catherine Mermet; 20, Comtesse d'Oxford; 21, Baron Bonstetten; 22, Baron A. de Rothschild; 23, Comte de Nanteuil; 24, Edouard Morren; 25, Emilie Hausburg; 26, Exposition de Brie; 27, Ferdinand de Lesseps; 28, François Michelon; 29, Horace Vernet; 30, Séateur Vaisse; 31, Xavier Olibo; 32, Baron Gonella; 33, Triomphe de Rennes; 34, Belle Lyonnaise; 35, Devoniensis; 36, Souvenir d'un Ami; 37, Niphetos; 38, Le Havre; 39, Madame George Schwartz; 40, Madame Laurent; 41, Mlle. Thérèse Levet; 42, Marguerite de St. Amand; 43, Marguerite Dombrain; 44, Marquise de Castellane;

45, Maurice Bernardin; 46, Monsieur Boncenne; 47, Pierre Notting; 48, M^{rs}. Charles Wood; 49, Annie Wood; 50, Auguste Rigotard.

Mr. R. TAPNER, *Crouchurst, Battle, East Sussex*.—1, Charles Lefebvre; 2, Gloire de Dijon; 3, Alfred Colomb; 4, Marchal Niel; 5, Marie Baumann; 6, Senateur Vaisse; 7, Marquise de Castellane; 8, Etienne Levet; 9, Francois Michelin; 10, Belle Lyonaisse; 11, Rubens; 12, Souvenir d'un Ami; 13, Pierre Notting; 14, Emilie Hansburg; 15, Ferdinand de Lesseps; 16, Exposition de Brie; 17, La France; 18, Auguste Rigotard; 19, Baroness Rothschild; 20, Baron Gonella—21, Lyonaisse; 22, Louis Van Houtte; 23, Duke of Edinburgh; 24, Edmund Morren; 25, Camille Bernardin; 26, John Hopper; 27, Comtesse de Chabrilant; 28, Baron Haussman; 29, Annie Wood; 30, Alice Dureau; 31, Madame George Schwartz; 32, Marie Raly; 33, Paul Neron; 34, Monsieur Noman; 35, Dr. Andry; 36, Prince Camille de Rohan; 37, Princess Mary of Cambridge; 38, Monsieur Woolfield; 39, Madame Victor Verrier; 40, Perfection de Lyon; 41, General Jacquemont; 42, Xavier Olibo; 43, Francois Tregay; 44, Devonienais; 45, Comtesse d'Oxford; 46, Madame Charles; 47, Abba Rosea; 48, M^{lle}. Eugenie Verdier; 49, Madame Margottin; 50, Perle de Lyon.

Mr. QUENNEL, *Brentwood*.—1, Alfred Colomb; 2, Marchal Niel; 3, Marie Baumann; 4, John Hopper; 5, Comtesse d'Oxford; 6, Charles Lefebvre; 7, Souvenir d'Elise; 8, Francois Michelin; 9, Devonienais; 10, Etienne Levet; 11, Catherine Mermat; 12, La France; 13, Victor Verrier; 14, Marquise de Castellane; 15, Madame Rothschild; 16, Louis Van Houtte; 17, M^{lle}. Eugenie Verdier; 18, M^{lle}. Marie Raly; 19, Abel Grand; 20, Madame Victor Verrier—21, Marquise de Mortemart; 22, Camille Bernardin; 23, Exposition de Brie; 24, Francois Lacharme; 25, Duke of Edinburgh; 26, Francois Loutat; 27, Anna Olivier; 28, Belle Lyonaisse; 29, Madame Willermoz; 30, Madame Fillou; 31, Madame Vidot; 32, Madame Clemence Joigneux; 33, Madame Bravy; 34, Camille de Rohan; 35, Xavier Olibo; 36, Jules Margottin; 37, Monsieur Noman; 38, Dr. Andry; 39, Horace Vernet; 40, Henri Ledechaux; 41, Jean Cherpier; 42, Princess Christian; 43, Edward Morren; 44, Auguste Rigotard; 45, Ferdinand de Lesseps; 46, Therese Levet; 47, M^{lle}. Bonnaire; 48, Baronne de Prailly; 49, Maurice Bernardin; 50, Marguerite de St. Amand.

Rev. G. ARKWRIGHT, *Pencombe Rectory, Bromyard, Worcester*.—1, Alfred Colomb; 2, Beauty of Waltham; 3, Charles Lefebvre; 4, Duke of Edinburgh; 5, Etienne Levet; 6, Ferdinand de Lesseps; 7, Horace Vernet; 8, La France; 9, Marie Baumann; 10, Gloire de Dijon; 11, Madame Bravy; 12, Madame Charles Wood; 13, Souvenir d'Elise; 14, Souvenir d'un Ami; 15, Marquise de Castellane; 16, Maurice Bernardin; 17, Camille de Rohan; 18, Senateur Vaisse; 19, Marchal Niel; 20, Madame Rothschild—21, Abel Grand; 22, Camille Bernardin; 23, Comtesse de Chabrilant; 24, Dupuy-Jamain; 25, Dr. Andry; 26, Duchesse de Caylus; 27, Emilie Hansburg; 28, Exposition de Brie; 29, Fisher Holmes; 30, Francois Michelin; 31, John Hopper; 32, Julie Touvais; 33, Lelia; 34, Louis Van Houtte; 35, Madame Caillat; 36, Madame Charles Craplet; 37, Madame Victor Verrier; 38, M^{lle}. Eugenie Verdier; 39, Marchal Vaillant; 40, Marguerite de St. Amand; 41, Marie Raly; 42, Marquise de Gibot; 43, Monsieur Noman; 44, Pierre Notting; 45, Princess Mary of Cambridge; 46, Victor Verrier; 47, Belle Lyonaisse; 48, Catherine Mermat; 49, Rubens; 50, Triomphe de Reunes.

Mr. BURRELL, *Heighington, Darlington*.—1, Charles Lefebvre; 2, Marchal Niel; 3, Madame Victor Verrier; 4, Alfred Colomb; 5, Ferdinand de Lesseps; 6, Comtesse d'Oxford; 7, Marie Baumann; 8, Dr. Andry; 9, Madame Rothschild; 10, Etienne Levet; 11, Francois Michelin; 12, Gloire de Dijon; 13, Louis Van Houtte; 14, La France; 15, Pierre Notting; 16, Marquise de Castellane; 17, M^{lle}. Eugenie Verdier; 18, Devonienais; 19, Duke of Edinburgh; 20, Madame Lacharme—21, John Hopper; 22, Emilie Hansburg; 23, Catherine Mermat; 24, Souvenir d'Elise; 25, Maurice Bernardin; 26, Annie Laxton; 27, Marquise de Gibot; 28, Lyonaisse; 29, Abel Grand; 30, Xavier Olibo; 31, Paul Neron; 32, Horace Vernet; 33, Dupuy-Jamain; 34, Monsieur Noman; 35, Camille de Rohan; 36, D^{ny}. Therese Levet; 37, Bessie Johnson; 38, Marguerite de St. Amand; 39, Souvenir d'un Ami; 40, Reynolds Hole; 41, Cheshunt Hybrid; 42, Senateur Vaisse; 43, Niphetos; 44, Victor Verrier; 45, Exposition de Brie; 46, Duchesse de Morry; 47, Belle Lyonaisse; 48, Madame George Schwartz; 49, Duke of Wellington; 50, Madame Willermoz; 51, Baron Bonstetten.

Rev. ALAN CHALES, *Brookham Vicarage, Reigate*.—1, Charles Lefebvre; 2, Alfred Colomb; 3, Marchal Niel; 4, Madame Rothschild; 5, La France; 6, Comtesse d'Oxford; 7, Etienne Levet; 8, Marie Baumann; 9, John Hopper; 10, Pierre Notting; 11, Duke of Edinburgh; 12, Marquise de Castellane; 13, Senateur Vaisse; 14, M^{lle}. Eugenie Verdier; 15, Louis Van Houtte; 16, Annie Laxton; 17, Leopold Hansburg; 18, Madame Victor Verrier; 19, Cheshunt Hybrid; 20, Gloire de Dijon—21, Edward Morren; 22, M^{lle}. Therese Levet; 23, M^{lle}. Marie Raly; 24, Souvenir d'un Ami; 25, Souvenir d'Elise; 26, Annie Wood; 27, Francois Michelin; 28, Madame Charles Craplet; 29, Madame Bravy; 30, Madame George Schwartz; 31, Madame Lacharme; 32, Mons. Noman; 33, Mons. Boncenne; 34, Niphetos; 35, Madame Falcot; 36, Madame Caillat; 37, Xavier Olibo; 38, Leopold I.; 39, Celine Forestier; 40, Fisher Holmes; 41, Paul Neron; 42, Camille de Rohan; 43, Miss Ingram; 44, Souvenir de la Malmaison; 45, Charles Lawson; 46, Rev. H. Dombrai; 47, Paul Ricant; 48, Catherine Mermat; 49, Gloire de Ducher; 50, Réve d'Or.

Rev. J. B. CANN, *Moulton Wyld, Charnwood*.—1, Abel Grand; 2, Alfred Colomb; 3, Beauty of Waltham; 4, Camille Bernardin; 5, Comtesse d'Oxford; 6, Duke of Edinburgh; 7, Dr. Andry; 8, Emilie Hansburg; 9, Edward Morren; 10, Horace Vernet; 11, John Hopper; 12, La France; 13, Madame Rothschild; 14, Madame Victor Verrier; 15, Marie Baumann; 16, Marie Van Houtte; 17, Marchal Niel; 18, Souvenir d'Elise; 19, M^{lle}. Eugenie Verdier; 20, Charles Lefebvre—21, Antoine Ducher; 22, Centifolia Rosea; 23, Clotilde Rolland; 24, Comtesse de Chabrilant; 25, Devonienais; 26, Due de Rohan; 27, Duchesse de Caylus; 28, Duke of Wellington; 29, Exposition de Brie; 30, Fisher Holmes; 31, Ferdinand de Lesseps; 32, Hippolyte Flandrin; 33, Lord Macanlay; 34, Louis Van Houtte; 35, Marie Raly; 36, Madame Caillat; 37, Madame George Schwartz; 38, Madame Charles Wood; 39, Madame C. Joigneux; 40, Marguerite de St. Amand; 41, Maurice Bernardin; 42, Marquise de Castellane; 43, Etienne Levet; 44, Mons. Noman; 45, Francois Michelin; 46, Pierre Notting; 47, Camille de Rohan; 48, Senateur Vaisse; 49, Xavier Olibo; 50, Souvenir d'un Ami.

Mr. R. W. BEACHEY, *Kingswell, Torquay*.—1, Alfred Colomb; 2, Marie Baumann; 3, Charles Lefebvre; 4, Marchal Niel; 5, Gloire de Dijon; 6, Duke of Wellington; 7, La France; 8, Centifolia Rosea; 9, Fisher Holmes; 10, Marquise de Castellane; 11, Ferdinand de Lesseps; 12, Catherine Mermat; 13, Souvenir d'un Ami; 14, Devonienais; 15, Camille de Rohan; 16, Dr. Andry; 17, Madame Rothschild; 18, Madame Victor Verrier; 19, Marguerite

de St. Amand; 20, Camille Bernardin—21, Comtesse d'Oxford; 22, Dupuy-Jamain; 23, John Hopper; 24, Louis Van Houtte; 25, General Jacquemont; 26, Antoine Ducher; 27, Baron Bonstetten; 28, Etienne Levet; 29, Madame George Schwartz; 30, Madame Willermoz; 31, Madame Berard; 32, Richard Wallace; 33, Victor Verrier; 34, Xavier Olibo; 35, Maurice Bernardin; 36, Olivier Delhomme; 37, Princess Mary of Cambridge; 38, Pierre Notting; 39, M^{lle}. Marie Raly; 40, Senateur Vaisse; 41, Emilie Hansburg; 42, Exposition de Brie; 43, Duke of Edinburgh; 44, Comtesse de Chabrilant; 45, Baron Gonella; 46, Celine Forestier; 47, Belle Lyonaisse; 48, Souvenir d'Elise; 49, Rubens; 50, M^{lle}. Eugenie Verdier.

Rev. H. DOMBRAIN, *Ashford, Kent*.—1, Alfred Colomb; 2, Charles Lefebvre; 3, Madame Rothschild; 4, La France; 5, John Hopper; 6, Comtesse de Chabrilant; 7, Devienne Lamy; 8, Duchesse de Caylus; 9, Duke of Edinburgh; 10, Dupuy-Jamain; 11, Elie Morel; 12, Etienne Levet; 13, Francois Michelin; 14, Jules Margottin; 15, Marquise de Castellane; 16, Reynolds Hole; 17, Marie Baumann; 18, Cloth of Gold; 19, Gloire de Dijon; 20, Marchal Niel—21, Andre Dunand; 22, Auguste Rigotard; 23, Comtesse d'Oxford; 24, Dr. Andry; 25, Emilie Hansburg; 26, Baron Bonstetten; 27, Lord Clyde; 28, Louis Van Houtte; 29, Madame Clemence Joigneux; 30, Madame George Schwartz; 31, Madame Lacharme; 32, Madame Lefebvre Bernad; 33, Madame Victor Verrier; 34, M^{lle}. Eugenie Verdier; 35, M^{lle}. Marie Raly; 36, Annie Laxton; 37, M^{lle}. Therese Levet; 38, Mons. Noman; 39, Pierre Notting; 40, Camille de Rohan; 41, Cheshunt Hybrid; 42, Souvenir de la Malmaison; 43, Celine Forestier; 44, Belle Lyonaisse; 45, Souvenir d'Elise; 46, Madame Margottin; 47, Comtesse de Nadanille; 48, Marie Van Houtte; 49, Catherine Mermat; 50, Centifolia Rosea.

Rev. C. P. PEACH, *Appleton-le-Street*.—1, Alfred Colomb; 2, Charles Lefebvre; 3, Madame Rothschild; 4, Marchal Niel; 5, Abel Grand; 6, Comtesse d'Oxford; 7, Dr. Andry; 8, Dupuy-Jamain; 9, Emilie Hansburg; 10, John Hopper; 11, Gloire de Dijon; 12, La France; 13, Etienne Levet; 14, Louis Van Houtte; 15, M^{lle}. Eugenie Verdier; 16, Marguerite de St. Amand; 17, Marie Baumann; 18, Princess Mary of Cambridge; 19, Marquise de Castellane; 20, Senateur Vaisse—21, Annie Laxton; 22, Annie Wood; 23, Auguste Neumann; 24, Berthe Bernad; 25, Boule de Neige; 26, Charles Routhier; 27, Devonienais; 28, Celine Forestier; 29, Comtesse de Chabrilant; 30, Duke of Wellington; 31, Duke of Edinburgh; 32, Fisher Holmes; 33, Francois Michelin; 34, Duchesse de Morry; 35, Lyonaisse; 36, Lord Macanlay; 37, Madame Charles Wood; 38, Madame Clemence Joigneux; 39, Madame Lacharme; 40, Madame Victor Verrier; 41, M^{lle}. Therese Levet; 42, M^{lle}. Bonnaire; 43, M^{lle}. Raly; 44, Maurice Bernardin; 45, Monsieur Noman; 46, Monsieur Woolfield; 47, Pierre Notting; 48, Souvenir d'un Ami; 49, Victor Verrier; 50, Xavier Olibo.

Rev. E. N. POCHIS, *Birkby Vicarage, Leicester*.—1, Marchal Niel; 2, La France; 3, Charles Lefebvre; 4, Marie Baumann; 5, Madame Rothschild; 6, Alfred Colomb; 7, Emilie Hansburg; 8, Madame Victor Verrier; 9, Etienne Levet; 10, Gloire de Dijon; 11, Paul Neron; 12, Comtesse d'Oxford; 13, Marguerite de St. Amand; 14, Dr. Andry; 15, Edward Morren; 16, Duke of Wellington; 17, Marie Raly; 18, Victor Verrier; 19, Marquise de Castellane; 20, John Hopper—21, Louise Van Houtte; 22, Duke of Edinburgh; 23, Duchesse de Caylus; 24, Pierre Notting; 25, Xavier Olibo; 26, Annie Laxton; 27, Senateur Vaisse; 28, Lord Macanlay; 29, Lord Herbert; 30, Dupuy-Jamain; 31, Prince de Portia; 32, Horace Vernet; 33, Belle Lyonaisse; 34, Leopold Hansburg; 35, Maurice Bernardin; 36, Monsieur Woolfield; 37, Monsieur Boncenne; 38, Gloire de Vitry; 39, Marquise de Mortemart; 40, Leopold I.; 41, Comtesse de Chabrilant; 42, Devonienais; 43, Due de Rohan; 44, Centifolia Rosea; 45, Souvenir de la Malmaison; 46, Madame Charles Wood; 47, Madame Clemence Joigneux; 48, M^{lle}. Eugenie Verdier; 49, Baron Gonella; 50, Fisher Holmes.

Mr. R. ROBSON, *Torquay*.—1, Alfred Colomb; 2, Camille Bernardin; 3, Charles Lefebvre; 4, Devonienais; 5, Comtesse d'Oxford; 6, Duke of Edinburgh; 7, Dupuy-Jamain; 8, Etienne Levet; 9, Francois Michelin; 10, La France; 11, Lelia; 12, Louis Van Houtte; 13, Madame R. Ashchild; 14, Marchal Niel; 15, Marie Baumann; 16, Marquise de Castellane; 17, Paul Neron; 18, Reynolds Hole; 19, Souvenir d'un Ami; 20, Souvenir d'Elise—21, Abel Grand; 22, Auguste Neumann; 23, Antoine Ducher; 24, Anna de Diesbach; 25, Belle Lyonaisse; 26, Bessie Johnson; 27, Centifolia Rosea; 28, Dr. Andry; 29, Edward Morren; 30, Ferdinand de Lesseps; 31, Gloire de Dijon; 32, John Hopper; 33, Marguerite de St. Amand; 34, Marquise de Gibot; 35, Madame Clemence Joigneux; 36, Madame George Schwartz; 37, Madame Victor Verrier; 38, M^{lle}. Eugenie Verdier; 39, Marie Raly; 40, M^{lle}. Marie Armand; 41, Niphetos; 42, Pierre Notting; 43, Perle de Lyon; 44, President Tiers; 45, Camille de Rohan; 46, Reine du Midi; 47, Richard Wallace; 48, Sophie Couperell; 49, Madame Charles Wood; 50, Xavier Olibo.

Mr. JOHN SCOTT, *Warminster*.—1, Alfred Colomb; 2, Madame Rothschild; 3, Charles Lefebvre; 4, La France; 5, Xavier Olibo; 6, Devonienais; 7, Marchal Niel; 8, Catherine Mermat; 9, Etienne Levet; 10, Francois Michelin; 11, M^{lle}. Eugenie Verdier; 12, Marie Baumann; 13, Ferdinand de Lesseps; 14, Comtesse d'Oxford; 15, Marquise de Castellane; 16, Souvenir d'Elise; 17, Edward Morren; 18, Louis Van Houtte; 19, Souvenir d'un Ami; 20, M^{rs}. Margottin—21, Madame Willermoz; 22, Madame Clemence Joigneux; 23, Madame George Schwartz; 24, Madame Victor Verrier; 25, Exposition de Brie; 26, Dupuy-Jamain; 27, Duke of Edinburgh; 28, Dr. Andry; 29, John Hopper; 30, Captain Christy; 31, Clemence Raux; 32, Annie Laxton; 33, Camille Bernardin; 34, Duke of Wellington; 35, Fisher Holmes; 36, Andre Dunand; 37, Baronne L. Uskull; 38, Marquise de Gibot; 39, Paul Neron; 40, Senateur Vaisse; 41, Richard Wallace; 42, President Tiers; 43, Marquise de Mortemart; 44, Triomphe de Reunes; 45, Marie Raly; 46, Beauty of Waltham; 47, M^{lle}. Marguerite Dombrai; 48, Abel Grand; 49, Maurice Bernardin; 50, Princess Beatrice.

Rev. R. N. MILFORD, *East Knoggs Rectory, Wilts*.—1, Alfred Colomb; 2, Marchal Niel; 3, Marie Baumann; 4, La France; 5, Emilie Hansburg; 6, Charles Lefebvre; 7, Devonienais; 8, Gloire de Dijon; 9, Madame Rothschild; 10, John Hopper; 11, Abel Grand; 12, Jules Margottin; 13, Duke of Edinburgh; 14, General Jacquemont; 15, Marquise de Castellane; 16, Comtesse d'Oxford; 17, Camille Bernardin; 18, Belle Lyonaisse; 19, Catherine Mermat; 20, Niphetos—21, Senateur Vaisse; 22, Camille de Rohan; 23, Dr. Andry; 24, Ferdinand de Lesseps; 25, Exposition de Brie; 26, Pierre Notting; 27, Sophie Couperell; 28, Marguerite de St. Amand; 29, Madame Charles Wood; 30, Madame Willermoz; 31, Louis Van Houtte; 32, Elie Morel; 33, Antoine Ducher; 34, Celine Forestier; 35, Triomphe de Reunes; 36, Souvenir de la Malmaison; 37, Souvenir d'un Ami; 38, Fisher Holmes; 39, Felix Genero; 40, Dupuy-Jamain; 41, Etienne Levet; 42, Xavier Olibo; 43, Marie Raly; 44, Monsieur Boncenne; 45, Beauty of Waltham; 46, Narcisse;

47, Lycenais; 48, Anna de Diesbach; 49, Comtesse de Chabillant; 50, Duchesse de Caylus.

Rev. W. F. RADCLIFFE, *Okeford Fitzpaine, Blandford*.—1, Maréchal Niel; 2, Charles Lefebvre; 3, Alfred Colomb; 4, Pierre Notting; 5, Comtesse d'Oxford; 6, Comtesse de Chabillant; 7, Madame Victor Verdier; 8, Leopold I.; 9, Marie Rady; 10, Louis Van Houtte; 11, Maurice Bernardin; 12, Devoniensis; 13, John Hopper; 14, Souvenir d'Elise; 15, Souvenir de la Malmaison; 16, Marguerite de St. Amand; 17, Alice Dureau; 18, Maxime de la Rocheferrière; 19, Souvenir Vaise; 20, Edvard Morren.—21, Gloire de Dijon; 22, Cedine Forestier; 23, Triomphe de Rennes; 24, Etienne Levet; 25, Felix Genere; 26, Camille de Roban; 27, Baron A. de Rothschild; 28, Dr. Andry; 29, Abel Grand; 30, Madame Rothschild; 31, Madame Clémence Joigneux; 32, Mad. Willemoz; 33, Duc de Cazes; 34, William Griffiths; 35, Baron Chaurand; 36, Baron Prevost; 37, Vicomtesse de Vezins; 38, La Ville de St. Denis; 39, Jules Margottin; 40, Prince de Portia; 41, Duke of Edinburgh; 42, Lord Clyde; 43, Lord Macaulay; 44, Duchesse de Caylus; 45, Duchesse d'Orléans; 46, Maréchal Vaillant; 47, Lady Sudley; 48, Gloire de Vitry; 49, Madame Julie Duvan; 50, Baronne de Maynard.

Mr. J. HINTON, *Wormister, Wills*.—1, Maréchal Niel; 2, Alfred Colomb; 3, Charles Lefebvre; 4, Madame Rothschild; 5, La France; 6, Comtesse d'Oxford; 7, Emilie Hausburg; 8, Triomphe de Rennes; 9, John Hopper; 10, Marie Baumann; 11, Marie Rady; 12, François Michelou; 13, Etienne Levet; 14, Dr. Andry; 15, Mlle. Eugénie Verdier; 16, Louis Van Houtte; 17, Souvenir d'un Ami; 18, Marquise de Castellane; 19, Pierre Notting; 20, Gloire de Dijon.—21, Victor Verdier; 22, Xavier Olibo; 23, Camille Bernardin; 24, Duchesse de Caylus; 25, Duchesse de Morny; 26, Marquise de Mortemart; 27, Antoine Dubert; 28, Duguy-Jannin; 29, Lord Macaulay; 30, Madame Charles Wood; 31, Madame Clémence Joigneux; 32, Madame Derreux Douville; 33, Madame Victor Verdier; 34, Madame Willemoz; 35, Comte de Nanteuil; 36, Duc de Edinburgh; 37, Reine du Midi; 38, Mlle. M. Dombrai; 39, Maurice Bernardin; 40, Catherine Mermet; 41, Perfection de Lyon; 42, Kishon Radcliffe; 43, Devoniensis; 44, Prince de Portia; 45, Souvenir Vaise; 47, Beauty of Waltham; 48, Princess Mary of Cambridge; 49, Exposition de Brie; 50, Ferdinand de Lesseps.

Mr. J. L. CURTIS, *Chatteris, Cambridgeshire*.—1, Alfred Colomb; 2, Charles Lefebvre; 3, Marie Baumann; 4, Maréchal Niel; 5, La France; 6, Madame Rothschild; 7, Madame Victor Verdier; 8, John Hopper; 9, Souvenir Vaise; 10, Mlle. M. Dombrai; 11, Marguerite de St. Amand; 12, Pierre Notting; 13, Duke of Edinburgh; 14, Duc de Roban; 15, Comtesse d'Oxford; 16, Louis Van Houtte; 17, Emilie Hausburg; 18, Marie Rady; 19, Camille Bernardin; 20, Mons. Noman.—21, Marquise de Castellane; 22, Ville de Lyon; 23, Hippolyte Flandrin; 24, Duke of Wellington; 25, Baron Gouella; 26, Victor Verdier; 27, Queen Victoria; 28, Duchesse de Caylus; 29, Souvenir d'un Ami; 30, Souvenir de Malmaison; 31, François Michelou; 32, Dr. Andry; 33, Triomphe de Rennes; 34, Elie Morel; 35, Centifolia Rosea; 36, Madame Charles Crapet; 37, Madame Noman; 38, Mons. Boucenne; 39, Gloire de Dijon; 40, Catherine Mermet; 41, Devoniensis; 42, Xavier Olibo; 43, Horace Vernet; 44, Madame Knorr; 45, Ferdinand de Lesseps; 46, Fisher Holmes; 47, Mlle. Eugénie Verdier; 48, Lord Macaulay; 49, Maurice Bernardin; 50, Olivier Delhomme.

REFERRING to Mr. Hinton's surprise at the preference for Climbing Devoniensis in the north over Maréchal Niel, I may say that I read his remarks while wearing in my coat a beautiful bud of the former, while I have quite failed to get a decent bloom of the Maréchal out of doors after several years' trial.

Climbing Devoniensis is most useful with us, blooming in autumn till the severe frosts come. I am, however, not intending to give up the Maréchal yet, and have within the last fortnight ordered a fresh lot budded on various stocks. In particular, a trial will be made of it on a north wall, for it is desperately "spring tender."

Allow me to express my obligations to Mr. Hinton for his annual list. I make it a rule to order any that appear therein well noted for, and not already in my collection.—E. P., *County of Durham*.

BATTERSEA PARK.—No. 2.

IN continuing my pleasant task I am desirous first of all to direct attention to a simple group that was remarkable for its inviting freshness, combined with an air of novelty and grace. It consisted of some large Fuchsias, Abutilon Thompsoni, a golden-leaved Fuchsia, and a broad green edging of Ivy. This beautiful bed was on a sloping bank, and, as in almost every other instance, the plants were skilfully arranged, so that the colours blended in pleasing harmony. Old or overgrown Fuchsias of all kinds may very usefully be turned to account in this way, and in a free rich soil they grow with surprising vigour, flowering profusely. They require no special preparation for this purpose, and invariably answer best when taken from the shed in which they are kept during winter, and planted at once in their summer quarters. When no shed is available for storing them in winter, they may be plunged in a thick bed of leaves, the tops covered with fern or straw, and be so left in the open air till spring with the great st safety.

Now let us turn to another of those charming circular beds which abound here, and which may justly be termed the gems of the garden. Clinging the gently-sloping margin we have an edging composed of two rows of Echeveria pumila, with a simple band of well-matched plants of Mrs. Pollock Geranium inside; the surface was carpeted with Lobelia speciosa dotted with Fuchsia Sunray, and there was a plant of Phoenix dactylifera

in the centre. The Fuchsias were about a foot apart, the branches upspringing and pendant with a few crimson flowers; the foliage yellow, pale green, and crimson, literally glowing like a sunray, mingling with the deep blue of the Lobelia; and the brightly green frondage of the Date Palm curving gracefully outwards from the centre over the bright colours beneath gave an indescribable charm and finish to the whole. The appearance of this bed was chaste, and yet very rich; it is a fine example of what is really desirable to replace the stereotyped combination of scarlet, yellow, and blue; and, what is more to the purpose, the lesson which it teaches is applicable to almost all gardens, for the few and simple materials of which it is composed are certainly within reach of all having a glass house or pit. Peter Grieve, a Golden Tricolor Geranium of a neat compact growth, and with beautiful leaf tints, might be used with advantage in this arrangement instead of Mrs. Pollock. Another circle had the Lobelia and Fuchsia precisely the same way, but it had no Palm or large central plant; the Lobelia was surrounded near the margin of the bed with a ring of the very choice Mesembryanthemum tigrinum, and an outer row of Sempervivum Pittoni.

Among the beds of bolder type the masses of Canna were most conspicuous, the taller kinds springing upwards far above one's head; fine as the effect of so many huge masses of this striking plant undoubtedly is, the situation and form of many of them strike one as being susceptible of considerable improvement. A long formal wall of Cannas elevated upon a plateau high up the side of a steep bank is neither a graceful nor attractive object, the formal outline and rigid block-like appearance being rather curious than beautiful. Many of these fine plants are, however, introduced very happily among some of the mixed groups, as was explained in the first paper; and this reminds me that there yet remains a group or two of bolder type to describe. Around one such was an edging of the huge grey-leaved Salvia argentea, with a row of white variegated Geranium inside it, enclosing a carpet of Geranium anemonifolium, out of which spring some immense plants of Wigandia mingled with what appeared to be some unusually tall plants of Solanum Pyracantha. The carpet of Geranium undoubtedly made this bed very attractive, the green Fern-like foliage imparting an air of sprightly grace and relief to the entire mass. A mixture of Ricinus, Wigandia, and a white-flowered Abutilon, with an edging of Funkia in flower was also good. Flourishing beds of Polymnia grandis, with its fine deep green much-cut pendant foliage, were of course very striking, as were many other beds of old and well-known favourites.

As usual the few examples of carpet bedding were very good, especially in the semicircular borders by the central river entrance. To these I hope to allude more fully in some future papers on modern flower gardens; but I must not omit to state here, that wherever I found a carpet bed composed of colours so bright as to somewhat infringe the bounds of good taste, a second glance invariably showed that foil beds composed of dark bronze-leaved Cannas, Ricinus, Polymnia, or Ficus elastica were there to complete the scene, which was evidently never intended to be dissected and carried away in separate portions, but that the entire group of beds, with the turf, the shrubs, aye, even the very walks themselves, should be regarded as composing a picture—one grand whole, every part or feature of which exercised an important influence upon the general effect. It is important to remember this, because many beds that appear very beautiful in a large public garden are not at all suitable for small places, and in the selection made here care has been taken to describe most fully such beds as are likely to prove generally useful.

The growing taste for succulent plants is commendable, their neat growth and the exquisite proportions of many rendering them very desirable as edgings and for marking the most intricate designs, as well as for rockwork, and I will now proceed to note a few of the most select kinds.

1, *Mesembryanthemum cordifolium variegatum* is placed first, not for its novelty, for it is now well known and appreciated, but because it is quite the best variegated succulent we have, and it also worthily takes high rank among bedding plants generally.

2, *Mesembryanthemum tigrinum*.—A rare, distinct, and very curious variety, with thick green leaves, closely dotted with white spots, and with a row of curved hook-like spines along the edges. It forms a pretty and very attractive edging.

3, *Mesembryanthemum deltoideum*.—A green-leaved kind, valuable for edgings from the quaint form of its abundant leaves.

4, *Sedum glaucum*.—This is a most interesting, useful, and

ornamental plant, yielding thousands of lovely, clustering rosettes of a bright glaucous hue, tinged with pink. Nothing can be finer than a carpet of it dotted with *Echeverias*, *Aloes*, or the pretty *Kleinia repens*.

5, *Echeveria secunda glauca*.—An indispensable plant, too well known to need description.

6, *Kleinia repens*.—The colour of this may be termed a bluish-grey. It has round tapering leaves, which by their peculiarly stiff and erect growth impart the singular and distinct appearance which renders it so valuable.

7, *Sempervivum montanum*, the Mountain Houseleek, is notable for the exquisite form of its compact rosettes. It forms a capital edging, as well as fine clumps for carpet beds.

8, *Sempervivum tabulaforme* is a singular plant, very suitable for an edging to beds of large plants. It grows to immense size; and the leaves lying perfectly flat upon each other, impart the table-like appearance which gave rise to its name.

There are so many other distinct succulent forms worthy of culture, that one hardly knows which to select. Those which I have described are, perhaps, the most useful. To those who desire a more extensive collection I may name *Echeveria glauca-metallica*, *E. pumila*, *E. atropurpurea*; *Aloe attenuata*, *A. mitraformis*, *A. cymbiformis*, *A. distans*, *A. frutescens*, and *A. pilifera*; *Sempervivum canariense*, *S. ciliare*, *S. repens*, *S. arachneoides*; *Cotyledon pulverulenta*, *C. alata*; and *Saxifraga nepalensis*.

Turning now to other plants we find a decided acquisition in *Leucophyton Brownii*. To the passing glance each plant of it appears to consist of a host of slender branches without leaves, but a closer inspection shows that its beautiful silvery-grey hue is imparted by the minute narrow leaves which thickly clothe the branches; it grows freely, but may be kept very dwarf by frequent pruning, which it bears with impunity. Of other grey-leaved plants, *Cineraria maritima compacta* is very good, as also is *Achillea umbellata*. *Santolina incana* is still unsurpassed as the best dwarf plant of its class. *Lobelia Omen*, of a pleasing lilac colour, with a dense spreading growth, is a very pretty, distinct, and effective kind that is calculated to become as popular as *speciosa*. A row of it looks well next *Leucophyton Brownii*. It is also good in Hyde Park. Of *Fuchsia Sunray* I have already said enough to show its value. It is a lovely variety, and appears to retain its foliage and colour perfectly well. *Coprosma Baueriana variegata* is another really splendid bedding plant.—EDWARD LUCKHURST.

GLAZING WITH PUTTY.

I CANNOT understand why such an outcry is raised against putty. I venture to say that nothing yet discovered answers the purpose so well if used in the right place, and here is the gist of the matter. Putty, as now made, is worse than useless in any position fully exposed to the sun and rain, for there, in the course of a year or two, it cracks and cakes off, and if renewed the same process takes place again and again, consequently the roof is never watertight.

As I said above, nothing answers so well as putty, but only for bedding in, and really this is all that is required of it. For some years I have adopted the following plan in glazing new houses, of which I have erected several. My roofs are all fixed, rafters or sash-bars 20 inches apart, and all the glass 12 by 20; this I find a most convenient size, and the advantage of having all one size enables you to keep some in store to repair breakages. The bars are placed so as to allow about an eighth of an inch, or scarcely so much, play; this is quite sufficient for any expansion of glass or wood. The glass is bedded in putty in the usual way, and as the work proceeds a small broad-headed tack is driven in at the lower corner of each pane, and this, if properly done, will both keep the pane tightly down and prevent it from slipping downwards. The putty on the outside is then smoothed off fair with the pane of glass, and the operation is complete. Thus done it has a neat and light appearance, and a couple of coats of paint (I use Carson's anti-corrosion) renders the roof perfectly watertight, and I venture to say that with a coat of paint every alternate year the roof will be as good after fifty years as when first glazed.

On a house I erected some ten years ago, and glazed in the old-fashioned way with sloping putty on the outside, I remove all loose putty each year, and it is now pretty nearly all off; but I do not put any more on, but simply paint over where the removal has taken place.

I am anxious to impress upon all putting up new glass the advantages of the above mode of glazing, on account of its simplicity; indiarubber strips, lead clamps, &c., I look upon

as cumbersome, expensive, and ineffectual. Not the least good quality of my mode of glazing is the ease with which repairs can be done, for by simply drawing the tacks and passing the knife down each side of the glass the broken pane will rise easily, and the new one be as easily put in and fastened down. It may be supposed that the tacks interfere with the free running-down of water, but this in reality does not occur in the least. —W. WINDEBANK, *Berwick Mount Nursery, Southampton*.

DEATH OF MR. ALDERMAN MASTERS.

It is with great regret that we have to announce the death of Mr. Alderman Masters of Canterbury, which took place on the 26th ult., at the ripe old age of seventy-eight. Mr. Masters was one of those rare instances of men in business who found time to cultivate intellectual pursuits, and who bring to bear the refinement which such pursuits produce on the everyday work of their calling. As a nurseryman long and well known he stood in the foremost rank, and the valuable collection of all kinds of trees, shrubs, tender and hardy plants which he formed in the Canterbury nursery, can only be judged of by a reference to the "*Hortus Cantuariensis*" which he published. The collection was in fact, when the writer of this first visited it more than thirty years ago, far superior to that of many of the botanical gardens of the Continent. Of late years, however, these rich collections have, in consequence of Mr. Masters' declining health, been allowed to go down; and as all his sons, with the exception of the accomplished editor of the *Gardeners' Chronicle*, long predeceased him, there was little inducement for him to continue them. Alderman Masters will be long remembered in the city of Canterbury as an active magistrate and a respected citizen; and as a patron of early genius, to the encouragement of which he lent his best efforts. There are many men eminent in art and in science who, when youths in the ancient city, can now testify to the stimulus they received in their upward course by the patronage of him whose loss they now lament.

SEEDLING BRIARS.

LAST autumn I obtained a few hundreds of seedling Briars, strong plants, for budding this season. They were planted in rich ground and grew freely, but I cannot say that they have proved a very satisfactory investment so far. Perhaps those who have grown them on a larger scale will be able to tell me whether it is usual for them to have such a very short crooked space between the roots and the collar of the plant as mine have. It is with the greatest difficulty that room has been found to insert a bud at all in the main stock; and when this is done, so crooked and knotty is the stem, that many of the buds have failed to unite on account of the uneven surface on which the plate of the bud rests. Altogether it seems to me to be a troublesome and fidgety stock to bud compared with the Manetti; and unless the future growth of the bud makes up in a marked manner for the extra trouble in budding, I shall most certainly stick to the Manetti for dwarf Roses, even if seedling Briars can be obtained at 1s. 6d. a hundred.—R. W. BEACHEY.

[The Editors have forwarded the above to me. Not having had sufficient experience, and the question being one of great interest to Rose-growers, I should be glad to elicit replies from others. "*D. De L.*" has spoken most favourably of Mr. Prince's seedling Briars, and I have no doubt that under proper conditions they will succeed. Perhaps the lasting powers of the blooms may have as much to do with the quality of the soil as the stock. A good staple of soil converted into a Rose garden from an ordinary arable wheat field would most likely prove a first-rate soil for exhibition.

From Mr. Beachey's description I should fancy the seedling Briars were not sufficiently pruned or planted deep enough. The question in my own mind is, whether the real value of the seedling Briar is not really the fact of its being a seedling, and not that of being a Briar. Some plants I got from Mr. Prince of new sorts of Roses on the seedling Briar, which were put in alongside Manettis, are much the same in growth, &c. There is, in short, little apparent difference, and I do not see that the system of budding on the seedling Briars will prevent the root-suckers which are so obnoxious in Briars. No doubt some persons will make the same objections to Manetti suckers, but they are easily preventible, and everyone or anyone at all conversant with Rose-culture can easily prevent suckers from Manettis; but no precautions can prevent

the glazed frames with hooks and eyes at the top instead of using hinges or making them fixtures. I made one yesterday, and it has simply two or three hooks on the top bar of the frame, and the eyes are on the glazed frame. This mode renders them easy to paint and remove for any purpose. They are easily unhooked, and the wholeinery is so rendered portable.—G. C., *Croydon*.

GERANIUMS AT CHILWELL.

HAVING on the 21st of August an opportunity, by a little study of Bradshaw, to have about an hour and a half at Mr. Pearson's Chilwell Nurseries, and being somewhat of "D., Deal's," turn of mind—inclined, like Dr. Watts's busy bee, to make the most of the shining hours, I accordingly paid a flying visit, and will endeavour briefly to allow your readers to partake of the honey I gathered from the flowers—not feeling like that selfish bee who gathered honey all the day, but ate it all the night.

HAVING wasted nearly two minutes over the station-master at Beeston, who refused to allow me to retain my ticket because I had booked through from Bristol to Nottingham instead of to Beeston, whereby the station-master was able to secure to the Midland Railway Company the great sum of 6d., which was my additional fare from Beeston to Nottingham, I found Mr. Pearson waiting for me outside the station, and a few minutes' drive brought us to Chilwell.

Previous to going to see the new seedlings of 1873 I went round the gardens to see some of the older favourites. The first bed we came to, passing over one or two Tricolors, was Corsair, here as elsewhere very good, and establishing its reputation as being one of the best zonals for bedding, not shedding its petals as Jean Sisley and one or two others of that class. Mrs. Mellows came next: this was not so good as I have seen it before, the season being too dry for it. Mrs. Holden, a dwarf deep pink, a type of a good bedder, stout footstalk, large truss, was next. Then came Edward Sutton: this and General Outram are much alike—a deep scarlet crimson. Next to this was Mrs. Turner, in colour somewhat between Amaranth and Florence Durand, and very promising. Augusta Miles was not at its best—too dry. The Rev. T. F. Fenn, a dark crimson, was near it and doing well; the dry season which had not suited Augusta Miles having just suited the latter, which last year grew much too strong for me. The next, George Miles, a cerise scarlet, large truss, tall in the footstalk, was new to me. One of Dr. Denny's seedlings, Wellington, was the next bed; fine in colour, but growing too strong here. My own namesake, a bronze raised by Mr. Laing, of the firm of Downie, Laird, & Laing, near to this, was one of the best bronze beds I ever saw—short-jointed habit, and a fine rich gold and red leaf. Robert Evans, a cerise or rosy scarlet, gave me the impression as being better for pots. Col. Holden was good, but too coarse and strong for most gardens; but this and Dr. Tate seem exactly suited for those who like a good hardy sort and free grower.

Mrs. Fyche, another dwarf deep pink somewhat like Mrs. Holden, a very good bedder, came next; then General Outram, and next Mrs. Hole, a dwarf magenta—one of the seedlings, I believe, from Violet Hill—a large truss, very floriferous, and quite a gem with those who will treat it properly, but too dwarf for harsh treatment. Near this was Grand Duke, still one of the best of its class, raised, I believe, by Mr. G. Smith; then Shakespeare, not so good as I have seen it before, and near, Lady Kirkland, one of Mr. Laing's seedlings, very good. If Lady Kirkland had but a stouter footstalk it would be very difficult to defeat. I had a bed this year fuller of large trusses of flower than almost any bed I ever saw; it hardly ever seeds, and the petals stand sun and wind well, but it wants a good footstalk. Next was Mrs. Hetley; then Florence Durand, not nearly so good as with me, but the bed was too dry and suffered from the proximity of a Conifer. Then came two old favourites—Bayard and Duke of Devonshire, and near, Mrs. Lowe and Frank Miles. And to show how Geraniums vary in different seasons under different conditions, Mrs. Lowe, which with me was one of the very best light flesh-pink beds I ever saw, was not nearly so good here—so much so as hardly to be like the same plant; but there had been so great a demand for them in the spring that Mr. Pearson was almost sold out, and only some of his worst plants had been put out. This also confirms me in my impression that if there is a trying season inferior plants, however good the kind, never recover to do justice to the sort. In another part of the grounds, in

front of the orchard houses, were some more beds of zonals; some of those I have named recurring again with one or two others, as Mrs. Taite, a good pink, and Mrs. Vincent, a very fine crimson, which were not planted out elsewhere.

We next went to a long double span house full of seedlings of 1873, to be sent out next year. The most noticeable features in these were, speaking of them in general, a great advance in the size of each individual bloom, with a rounder-shaped flower, more of the true florists' type; the generality of the flowers much larger than a crown piece, and the truss large. How much of the Nosegay blood is left in is difficult to say, or whether they will stand sun and wind when bedded—this will be a test of time; but, as far as the individual flowers in their pots in this house, there was no doubt that there was a great advance. I will mention those that struck me most. First Sir H. G. Stanhope, of the General Outram stamp, but larger flower and pip; Lady Byron, bright pink, a white eye, good for exhibition as a pot plant; Brutus, a light crimson scarlet; and Charles Smith, a darker; Ethel, a fine lilac; and Mrs. J. F. Fenn, somewhat in the way of Amaranth, but size of pips larger; Rev. — Atkinson, somewhat like Mr. Pearson's Rev. C. P. Peach, a deep scarlet, very little orange; John Gibbons, very large, crimson scarlet, likely to make a striking pot plant; Mrs. Huish, a magenta crimson, very good; and John Fellows, reddish crimson, very good; Mrs. Bosworth, light pink, light eye; Annie Orton, something like Amaranth, but much larger individual flower; Percy Cooper, scarlet, with a white eye, of the Jean Sisley stamp, a finer flower and brighter, would be first-rate for exhibition. Next I noticed Mrs. Whiteley, also a scarlet with a white eye; and two of the very best salmons I have yet seen—Miss Strahan and Ellen—a great advance among the salmons, fine both in truss and flower, sure to be good in pots, but yet to be tested for bedding. There was also a fine 1874 seedling, Miss E. Burnside, of the type of Maid of Kent, but a much finer and smoother flower, and large truss. Among the 1873 seedlings I also omitted Mrs. Brown, a cerise magenta, large truss, perhaps of the firm Brown, Jones, and Robinson. Two of Mr. Pearson's Tricolors not sent out will also be acquisitions as striking now a really new stamp of colour—a magenta tinge in the red zone; these two are Miss H. Walter and Miss Eleanor Miles. I have not time at present to add more.—C. P. P.

SEACON HEATH.

THE SEAT OF THE RIGHT HON. G. J. GOSCHEN, M.P.

TOURISTS and others visiting the fashionable watering place Tunbridge Wells cannot have omitted noticing the beautifully undulating character of the country near that great resort of wealth and fashion. The common, around which residences of every style of architectural design have arisen, is in itself not a bad example of what the neighbourhood abounds in. Sandstone rock more or less exposed to the surface, and Ferns and Gorse, give it a stamp of wildness. But my purpose is not to describe Tunbridge Wells, but merely to point out that the country is of the same character for several miles in various directions, more especially eastward. The eminences and declivities seldom prevent cultivation, but are sufficient to give that interesting character to the landscape so much admired by those who look to the softer and more manageable features of rural scenery, if it may be so called, with greater pleasure than they do on barren rock and inhospitable waste; for here we have the highest possible cultivation blended with a natural scenery that in itself is at all times a source of pleasure to look upon.

Decomposed sandstone is the basis of the surface soil. The vegetation is, as may be expected, a wide and varied one. The Oak, Birch, Scotch and Spruce Fir assert their sway as monarchs of the forest, or of such lands as still retain a semblance of not having submitted to either spade or plough. To these may be added the Hazel, Broom, Furze, and now and then Heath, with plenty of the common Brake. The northern sides of hedges and positions of a like kind glisten with the common hardy Ferns, not the least interesting being several varieties of the Scolopendrium, which here finds a home to its liking. The soil is generally of a pale yellow colour, and contains few stones, and these generally soft, but it is very fertile, and most crops attain great perfection, notably many kinds of fruits; and it is a singular feature of the district that Apples grown here produce a different kind of cider from that which is made from the same variety grown in the neighbourhood of Maidstone, the latter being an inferior liquor, although

the fruit appears to be finer, thus showing that certain soils supply food of a different kind to what others do. An absence of calcareous matter and a corresponding preponderance of iron cause much of the difference, and iron works existed in the neighbourhood and were worked to great advantage long before the present seats of the important iron trade in the northern counties were ever thought of. Lamberhurst, a village a few miles to the east of Tunbridge Wells, supplied the iron from which the railing that until very recently surrounded St. Paul's Cathedral was made; but the furnaces have long ceased to be worked, and the neighbourhood is as exempt from the smoke of iron foundries as it was in the days of Julius Caesar. But the loss of the iron trade is amply compensated by the improved cultivation of the land, and the greatly enhanced value of property resulting from the health-giving character of

the district having attracted many of the rich London merchants and others in search of a pleasant country home. Hence many small villages have acquired a certain degree of importance, and notable amongst such is that of Hawkhurst, which has made such rapid progress that not long ago I heard it mooted amongst some of its inhabitants whether it could not support a local paper.

Seacox Heath is about ten miles east of Tunbridge Wells, and two miles west of Hawkhurst. I am not exactly certain whether the mansion stands in the county of Kent or in Sussex, but believe it is in the latter county, although the grounds extend in both. The property would appear some time in the early part of the present century to have been in the possession of a gentleman who had a good appreciation of what was likely to improve the aspect of the grounds, for he



Fig. 87.—SEACOX HEATH.

planted most of the choice trees and shrubs that were to be had at the time, notably some good Evergreen Oaks and several Pines, as well as deciduous shrubs and trees, which, having now attained a large size, give importance to a place that by its architecture at once strikes the beholder as quite new. A large mansion, successively the residence of the Wardroper and Palliser families, stood near here. It is said to have been built by the "Goudhurst smugglers," a gang infesting the neighbourhood until they were extinguished by their leaders being executed in 1748. The wealth of some of the members of the gang, and their daring exploits, would be incredible were they not revealed by evidence preserved in our judicial records.

The present mansion and its terraces are the creation of the last seven years, the property having been purchased by its present owner shortly before that time; and the existing mansion and its appurtenances not being adequate to the requirements of the family, Mr. Goschen determined to build another. A suitable site having been found but a short way from the old one, a large and handsome structure of a pretty light-coloured freestone has been erected. Externally it presents suitable architectural and sculptural embellishments, the character of the stone aiding the latter considerably by the fineness of its grain, which is capable of being cut with great sharpness; while internally there are a noble hall and staircase,

with suites of rooms fitted with all the modern requisites which wealth and skill can command.

The situation is well chosen. The highway, a broad and well-kept one, leading from London to the once-important town of Rye, passes through the estate, and a suitable lodge is being erected at the entrance to the carriage road, the latter curving round and partly through a cutting, rendered necessary by the high ground in a south-westerly direction, for some distance, when the mansion is approached on the north side, a spacious area being set apart for the carriage front, which is fenced-in by a suitable balustraded wall, with ample space for a carriage road, gravelled with the small coloured pebbles found on certain parts of the seashore. The carriage road, I may observe, in its course to the house passes through a portion of the park as well as the grounds to which the term "dressed" may be applied, and groups of shrubs have been planted at suitable places along its line. The mansion, I believe, does not stand exactly with the cardinal points, but sufficiently so to justify my saying that the carriage entrance is on the north side, while on the opposite side an ample space is enclosed as a terraced flower garden, the natural fall of the ground in that direction rendering more than one terrace necessary. On the lower one, which is reached by wide flights of steps, a set of flower-beds, upwards of fifty in number, and occupying a sort of semicircular plot

of ground, with the most ample spaces of grass between, looked exceedingly well at the time of my visit, being planted with the best varieties of bedding plants, including some not generally met with. Notable amongst the latter was apparently a *Chrysanthemum*, which I was told was quite hardy and continuous-flowering; in height and habit it matched very well with *Geraniums*, the colour being a clear white, and in the distance it looked well. To the westward of the mansion the terrace was also continued, but in a different form, yet still with an ample enclosure next the mansion; while on the east side, which led to the main part of the dressed grounds, a large and showy conservatory had been erected. I use the terms "large" and "showy" in contradistinction to good and commodious, which I doubt much if it can be made to be without such alterations as the architect would be apt to say would mar his work. As it was, architectural embellishment left no room for plants, and climbers would seem to be ignored altogether. Perhaps, however, the necessity of preserving the harmony of design between a conservatory adjoining a mansion and the latter is so great that resort must be had to a professional artist. It would be well for all who contemplate erecting a costly structure for the well-being of plants to consult someone who understands that part of the decorative art better than the man of bricks and mortar, for great mistakes are often made in this matter. At the time of my visit, however, the conservatory had barely passed out of the builder's hands, but I remarked that at least four-fifths of its internal area was occupied by paths neatly paved with fancy tiles, and the walls, roof, and the fittings generally gave token that the builder would not like these features to be concealed by climbers or vegetation of any kind.

Emerging from the conservatory we find ourselves by degrees carried beyond the range of the geometric and formal stamp of things immediately surrounding the house, and winding walks bring us amongst Pines and various shrubs planted a long time ago, but very considerable alterations and additions have been made up to the present season. A mass of shrubs was shown me that had only been planted last autumn, and when we consider how very unfavourable the spring had been to all new-planted subjects, their appearance was highly creditable. Some good examples of Pines were to be met with, and a Yew hedge of considerable age and size was pointed out as having been planted only a year or two ago, yet it had the appearance of having been there all its life. The walk referred to led by the site of the old mansion, a part of which is to be left for some special purpose, and as it does not in any way intrude upon the present structure, it may very properly remain.

The kitchen garden is also in this direction. It is mostly new, and with, perhaps, somewhat too steep a slope to the south; but to obviate the evils of this by the sun striking too forcibly on the steeply sloping side, the rows of vegetables, including Celery, had been wisely planted east and west, so as to afford each other shade; and although my visit was in one of the hottest days in July, and at a time when most crops were languishing from want of water, everything was fresh and doing well. The surroundings contained many tokens that the presiding genius was well versed in botany, which, however, will hardly create surprise, seeing the garden is under the care of a Mr. Don, a name sufficient in itself to indicate that practical botany was sure to be attended to; but that a scientific knowledge of the character of plants is not inimical to good cultivation was here shown, for everything was in good order. A walk round revealed the fact that Mr. Don is a great admirer of all that is good in shrubs. I noticed several shrubs not usually met with in ordinary collections, and the same of herbaceous plants, of which there is a good collection. Mr. Don was specially anxious to cultivate such plants as produced flowers which when dried are ornamental in winter, and among the Everlastings there was a good batch of *Acroclonium roseum* growing in a sort of raised bed, luxuriant and fine, while, of course, the various kinds of *Helichrysum* were duly represented.

The term Heath as applied to this place has no more bearing on its present appearance than the term "park" or "fields" has to districts in London now closely packed with streets. The old name only has been retained; the place in every sense is new, and looks out on a park of rich pasture land, sufficiently diversified with trees of healthy growth. So far from its bordering on an extensive waste, it is questionable if there is any part of the United Kingdom where land is of more value than it is here; and I may add that it would be

difficult to find in any part of the country a place where the farming is better.—J. Rouson.

FLOWERS FOR OUR BORDERS.—No. 41.

ARNEBIA ECHIOIDES.—ECHIUM-LIKE ARNEBIA.

This plant has been bandied about from one genus to another by different botanical writers, until it has acquired a somewhat lengthened list of synonyms. By Linnaeus it was termed *Lycopsis echioides*, but in that genus the mouth of the flower is closed by scales, and the nuts are hollowed at their base; by Bieberstein it was classed with the *Alkanets*, but these, too, have the throat furnished with scales, as we have already seen; and by Fischer and Meyer it was placed among the *Lithospermums*, under the name of *L. erectum*. It is with



Fig 88.—*Arnebia echioides*.

this genus that it has the greatest affinity, and there seems, indeed, no good reason for removing it thence. The genus *Arnebia* is doubtless sufficiently distinct from *Lithospermum*, the two-lobed stigma of the latter being replaced in the former by one with four lobes of a subglobose form. But it is singular that this feature, which is almost the only point of difference between the two genera, is absent in the species under consideration, its stigma being bifid.

But under whatever genus the plant may eventually be classed, there can be no doubt of its ornamental value as a rock or even a border plant. It grows from a span to a foot high, the stems being mostly simple, clothed with oblong hairy foliage, and terminated by a head of handsome yellow flowers spotted in the throat with purple. It has proved of difficult cultivation, and has consequently become very rare; it is, in fact, doubtful if the plant now exists in more than one or two private gardens in this country. *Arnebia Griffithsii*, or "Flower of the Prophet," a pretty annual species, has proved equally intractable, all attempts to retain it in cultivation having failed.

Arnebia echioides is a native of the mountains of the Caucasus, and also of Armenia; and was first introduced to the Royal Gardens, Kew, by the late Dr. Fischer, of St. Petersburg. It is to be hoped that so good and desirable a plant may attract the attention of collectors, and be again introduced to our gardens.—(W. Thompson's *English Flower Garden*, Revised by the Author.)

DISPUTED DECISION AT A ROSE SHOW.

A short time since a stand of Roses took the first prize, the exhibitor of which, ignorant of Rose-showing, had placed

them on his beard deprived of all their foliage, till a brother exhibitor told him he thought they ought to have had their foliage with them as when cut from the tree. Thinking himself wrong, he, the exhibitor, before the judging came on, placed foliage to the blooms artificially. The Judges, being ignorant of the fact, awarded him the first prize, and when told of what had been done, disagreed with the majority of members, and said they were supposed to judge Roses, not foliage. At the same time those Roses that took the second prize had their foliage as grown with them.—G. DRYSON, *East Malling, near Maidstone*.

Off the schedule stated that the blooms were to be exhibited with the foliage attached, then the Judges were undoubtedly wrong, for they ought to have examined the flowers to see whether the foliage was attached or not. If there was no condition as to foliage, and the Judges awarded the prize to the best blooms, then they were right.—EDS.]

NOTES AND GLEANINGS.

MANY of the flies at this time of the year found dead on the window panes are surrounded by a white powder, which is said to be the spores of a fungus that has caused the flies to burst and die. This morning I observed several living flies running their probosces over these spores, so it is very clear how the disease is propagated.—G. S.

— AN interesting and instructive EXHIBITION of collections of EDIBLE AND POISONOUS FUNGI will be held in the Council-room at South Kensington on Wednesday, October 7th, when prizes amounting to £28 will be competed for in the following classes—viz., Class 1, Collection of Fungi arranged according to their botanical affinities. Neat arrangement and correct nomenclature will be taken into account in awarding the prizes. The edible and poisonous species are to be so marked on their respective labels; the edible species being named on white labels, the poisonous on red labels, the rest on yellow labels. Prizes £5, £3, £2. Class 2, Collection of Edible Fungi. These should be shown when possible in juxtaposition with specimens of similar but noxious species. Prizes £3, £2, £1. Class 3, Collection of New or Rare Fungi. Prizes £3, £2, £1. Class 4, Cultivated Edible Fungi. This class is intended for species likely to be useful as esculents, but which are not now known in the cultivated state. Prizes £3, £2, £1.

— THE importation during 1873 of Potatoes, 7,506,615 cwt. of the value of £2,120,151, being an increase over that of the previous year of 25 per cent in quantity, and 29 per cent in value. Of eggs, 660 millions were imported, being an increase of 21 per cent in quantity, and the increase in their value was 33 per cent.

NOTES ON VILLA AND SUBURBAN GARDENING.

Annuals.—In those days when annuals were used either in combination with herbaceous plants, or in masses in beds by themselves, for the decoration of the garden, they were thought highly of, and were treated with something like the care they deserved; for many, if not most, of the varieties in repute at that time—that is, before the Geranium was so much used for bedding, were, by sowing at different times in the year, grown so as to keep a garden gay throughout the spring, summer, and autumn months. True, there always is in such things considerable labour in keeping them in their highest trim, such as picking seed-pods off, regulating the growth, and picking out those plants which show an inclination to depart from the original variety, a circumstance so frequently occurring in seedlings of that kind; but this labour is not more than other plants of the present day require, and the blooming powers of an annual are extraordinary, and well repay the trouble. I am glad, however, to see that annuals are regaining their lost ground, and are fast growing into favour again. It has been my lot to witness on several occasions the gay appearance of some gardens from growing a collection of annuals, and these some of the most common among them; quite hardy too, and their treatment of the simplest kind—so much so, that no one need fear a failure in a first attempt at their cultivation. As this is the time of year to sow those sorts to which I allude, I intend giving the names of a few I have grown for years and of which I have proved the qualities for the decoration of a suburban garden (I have not the remotest idea that annuals will ever take the place of those plants at present used for beds; but for the spring there is as yet nothing so beautiful as some of them), adding a short description of each for the guidance of those who desire them.

First of all I must state that it is necessary to prepare a piece

of ground for the seed; and I would advise this, that the seed be sown in close quarters, as I presume that to those for whom I write space is valuable. Each sort should be separated from the others by a narrow path trampled out with the foot, and the seed sown in the most careful manner, so that none of it springs over the bounds and becomes mixed with its neighbour, which at the blooming time would produce confusion and disappointment. The soil need not be of the richest kind, nor the very poorest, but such as has grown a crop of Potatoes, for instance, would possess staple sufficient to carry them over the winter without the addition of any manure. The ground should at all events be in a sheltered aspect, a southern one if possible, and be dug deeply and marked out as above described. Some of the seed being very small—that of *Silene pendula* for instance—such species will not require so much space for the same number of plants as the larger sorts, therefore a bed for each may be allotted as the sowing goes on, marked out, and every sort named accordingly. Now, as there are some annuals the seeds of which vegetate better if the soil is worked down very fine, it will be desirable, unless the soil is unusually heavy, for it all to be worked down, and then push a quantity of it back with the rake, to be afterwards returned when the seed is sown. This is a safer method to ensure the covering of the seed than first sowing on the surface and then raking it in, as much of it is then pretty sure not to be buried.

If the weather is moist and warm the seeds are not long in coming up; then comes a little attention in order to keep away snails, which will speedily attack some of them. Use lime mixed with soot in equal proportions to prevent injury from that cause.

Now as to the annuals to be sown, beginning first with *Nemophilas*. *Insignis* and *maculata* do not exceed a foot in height; they are rather impatient of too much wet, and should therefore have the driest place; the colour is blue, and blue and white spotted sometimes. These are sown a month earlier, and then transplanted in autumn, but I advise their standing in the seed bed during winter. *Lasthenia californica*, a splendid bright yellow flower, grows in a sort of tuft-like form about a foot high, and is suitable for large borders in front of a shrubbery or round the base of a specimen evergreen. Then there are the *Lupines*; *nanus* (white and blue varieties) is dwarf, but tricolor is a tall one. *Limnanthes Douglasii* is among the hardiest of all annuals; it has more of a straw-coloured blossom, flowers abundantly, and will grow almost anywhere; it is about a foot high. *Collinsias bicolor*, *grandiflora*, and *verna* are well known to be very beautiful, and make good blue and white beds; they grow about 15 inches high. *Silene pendula* and *pendula alba* may both be used with great success; the former is a pink and the other whitish, or perhaps I ought to say cream colour. These are plants of the hardiest description, spreading habit, and are excellent for beds, clumps, baskets, or rockwork, and grow about 15 inches high. *Saponaria calabrica* is another plant of the easiest culture, and, to my thinking, the most beautiful of all of this class of hardy annuals when grown in a mass, such as a bed, or in a line with others in a border. As it grows it becomes very compact, and produces thousands of tiny bright pink flowers, and the most lasting of any. The plant is a foot high. Next we come to the *Forget-me-not*, a fine blue colour, well known to be one of the best decorative plants for spring gardening; it grows well in clumps or rockwork, in beds or baskets, and is about a foot high. *Virginian Stock* is a pretty little annual of dwarf growth and much sought after; about 5 inches high. *Eucharidium grandiflorum*, purple, about 1 foot high, is fine for small beds and borders. *Eutoca viscida* is also a dwarf grower, and would be much admired in patches or beds; 1 foot high, blue. *Leptosiphon densiflorus*, purplish colour, is low-growing, and compact. Now comes *Clarkia pulchella*, a very hardy annual of a purple colour, a foot high, one of the best; there is a white variety also good and worthy of cultivation.

I have now named about a dozen of the most varied colours; the plants compact in habit and free in flowering, and such as will be sure to please. There are several tall-growing sorts, such as *Godetia Lindleyana*, rose; and *rubicunda*, rose with a red centre; *Erysimum Peroffskianum*, orange, and some others which I have not named owing to their being of too tall and spreading habit for small gardens, but which, if desired, would afford a quantity of cut blooms. I am sure with what I have named a great display may be made in the spring. Some of them do not bear well too much wet, and others do not succeed so well if planted in their flowering quarters in autumn, as they are liable to die off. My object has been to advise the sowing of them rather later in the way above recommended, and letting them stand in the seed beds all through the winter, where, if heavy snow and frost come on, the whole can be protected by hoops and mats, or any other means at command, and during that time the beds and borders that are to receive the plants can be turned-up to the action of the weather and become pulverised and sweet. About the middle of March transfer them to the garden in small patches, and they will at once after watering start into growth with no further trouble and flower abundantly. While

in the seed bed, if the weather should prove mild, the coarsest of them will be the better of a little punching-back; they will then transplant all the better and flower quite as well.—THOMAS RECORD.

DOINGS OF THE LAST AND PRESENT WEEKS.

KITCHEN GARDEN.

DIGGING, trenching, and making alterations. The weather has been very favourable for all these operations, and it is highly important to get all such work done as soon as possible. We have had very little rain during the last four weeks, but sufficient to moisten the ground, and this caused the autumn-sown seeds of Lettuce, Cabbage, Onions, Cauliflowers, &c., to vegetate freely. There are few vegetables more esteemed in the late spring and early summer months than Cauliflowers, and it is very desirable to get them in at as early a date as possible. Our earliest are planted out on a south or east border, or, failing this, in as warm a position as possible; and to insure success, the ground has been trenched and well manured, and the plants are carefully put out with a trowel. A later sowing is pricked-out in boxes, and these are just sheltered by glass lights from severe frosts or heavy pelting rains. At all other times the lights are removed. Spare plants may be pricked-out in a bed of fine, but not rich, soil out of doors, and about the best position for them is under a south wall. Lettuce plants will also be put out on a south border, and in a more exposed position as well. A succession of vegetables may be obtained not only by sowing at different times, but also by planting in different positions. Attention should also be given to securing a northerly aspect; indeed in light shallow soils it is not possible to obtain a supply of crisp wholesome vegetables during the dog-days without being so favoured. Strawberry plants have not grown so freely this year. Small-sized plants invariably produce the best and largest fruit. Large plants produce a quantity, but from being more shaded by the leaves are not so good. Removing superfluous Raspberry canes, as well as those which have borne fruit. It is much better also to tie the canes in a position where they can have the full benefit of light and air. The best way to treat Raspberries is to plant in rows 1 foot apart, and at the distance of 2 or 2½ feet between the plants; the canes to be trained at regular distances to a wire strained horizontally at 3 feet from the surface of the ground.

FRUIT AND FORCING HOUSES.

Vinerias.—We can only reiterate the instructions given in previous numbers about the care requisite to preserve ripe Grapes in late vinerias, and also to see that inside borders do not suffer from want of water; but this ought to have been seen to early in September at the latest, as watering the borders now would be a predisposing cause to damp, and injuriously affect the berries. Black Grapes are not so readily affected by mould as white. There is not much trouble to keep Black Hamburgs, or even Black Muscat of Alexandria, until Christmas; yet Royal Vineyard, Syrian, White Tokay, and others recommended as keepers are constantly having mouldy berries cut out from the bunches. There is not much said about White Lady Downe's, which was stated to keep quite as well if not better than the black variety. It has been pretty generally planted, and must have been sufficiently proved now.

We are getting compost ready for surface-dressing the borders of the early houses. Where the roots are much restricted it should be rich, and where attention is given to annual dressings a very limited extent of border will suffice to maintain Vines in health for many years; indeed better Grapes are sometimes produced from such borders than from those where the roots have an unlimited range. The dressings used here are prepared in the following manner:—Cow and stable manure is collected as it can be obtained, and thrown into a heap to ferment, but not to the extent of drying it. When the violent heat has subsided the manure is mixed with an equal proportion of turfy loam, and laid up in a heap, where it will again heat, so that the loam will become incorporated with the ammonia. This mixture is used to dress borders where the roots are not much restricted. In very much confined borders a 12-inch potful of guano, or twice the quantity of pigeon dung, is added to each barrowload of the mixture.

The extension of borders is required from time to time when young Vines have been planted to allow of it. A range of vinerias at Loxford was erected on very unsuitable soil with a wet subsoil. Plenty of drainage was put in; and as the Vines would not have thriven if the roots had got into the natural soil, a 9 inch wall was built in front of the border. This is taken down and rebuilt at a distance of from 4 to 8 feet; but before adding the material, which had been previously prepared, a foot at least of brickbats should be placed underneath, and over this some turves with the grass side down. After filling-in the compost to within a foot or 18 inches of the surface some of the roots should be spread out over it, and the remainder a little nearer the surface. Instructions how to prepare the compost have been given in previous numbers. If it is intended to force

Vines about the middle of November, they should be at once pruned.

Strawberry Plants for Forcing.—From the time these are cut from the parent plant until they are taken under glass, the pots always stand in an open position fully exposed to the sun. This year the crowns are already very prominent. It is sometimes necessary to place the plants in an unsuitable position, and also to crowd them too closely together. It is in the case the plants would be much benefited by being placed on an open spot in the kitchen garden from which any crops have been removed. We do not water so freely now, only plants that are really dry are watered. The plants of Black Prince intended for early forcing should be on a south border, or where they can at least have the full benefit of the sun.

PLANT STOVE.

In our house there is a mixed collection of plants of opposite character and requirements—Phalenopside and Nepenthes needing deep shade; and Palms, as well as hardwooded plants requiring all the sunshine that can be obtained. Then we have of Ferns, Adiantums such as *A. trapeziforme*, macrophyllum, cuneatum, &c., which require to be screened from the sun for an hour or two in the middle of the day in hot summer weather, and to have no shade after September. A farleyense, Sancte-Catherine, the Gold and Silver Gymnogrammas, and many others, suffer severely from even moderate sunshine. This is very often the way that many gardeners are situated, but we must make the best we can of our difficulties. All plants requiring shade must be placed in one part of the house, and those requiring sunshine at the side where they can have the full benefit of it. Amongst the Orchid family, the Moth Orchid, Cypripediums, and a few of the more delicate-leaved Odontoglossums, require shade. Vandas and Saccolabiums are not yet able to stand the full exposure. Cattleyas, Aërides, and Dendrobiums should stand or be hung up close to the glass in the full sun.

All plants that require repotting should be attended to at once, as only a very few of the fastest-growing hardy plants should be potted after this time.

Orchids from the cool regions of New Grenada, of which so many beautiful species are now in cultivation, such as *Masdevallias*, *Odontoglossum crispum*, *O. triumphans*, &c., have been removed from the cold frame under the north wall to a heated span-roofed structure, where they will stand during winter and spring. At no season is a high temperature necessary. A minimum of 45° is the best for the next six months. One often sees these fine Orchids grown in a too high than in a too low temperature. Many persons fancy that because they are Orchids that they must be grown in a high temperature. Nothing is more erroneous: a high temperature in winter will ruin the constitution of such plants. *Poinsettia pulcherrima*, which has been until now grown in a greenhouse temperature, with air on night and day, is now in a stove temperature, and a little weak manure water, or surface-dressing with some rich compost, causes the leaves to retain a green colour. One often sees this fine plant disfigured by the loss of three parts of its leaves, a few sickly specimens alone remaining at the top of the growth when the rich crimson-coloured floral bracts appear.—J. DOUGLAS.

TRADE CATALOGUES RECEIVED.

J. C. Wheeler & Son, Gloucester, and 59, Mark Lane, London, E.C.—*Descriptive List of Hyacinths, Tulips, Narcissus, &c.*

Heathside Nurseries Company (Limited), Bagshot, Surrey, and Queen Victoria Street, London, E.C.—*The Heathside Manual of Hardy Trees and Shrubs.*

J. Linden, 52, Rue du Chaume, Ghent, Belgium.—*Special Catalogue of Azaleas, Camellias, Rhododendrons, &c.*

J. B. Guillot, fils, Chemin des Pins, 27, Lyon Guillotière (Rhône).—*Catalogue Général et Prix Courant des Rosiers.*

R. Dean, Ranelagh Road, Ealing, London, W., and Bedford.—*Catalogue of Primroses, Polyanthus, Daisies, Bedding Pansies, Violas, Bulbs, &c.*

Butler & McCulloch, South Row, Covent Garden Market, London.—*Autumn Catalogue of Dutch and Cape Bulbs.*

TO CORRESPONDENTS.

* * It is particularly requested that no communication be addressed privately to either of the Editors of this Journal. All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably.

BOOKS (T. D.).—The "Cottage Gardeners' Dictionary" may be obtained at our office for 6s. 6d., or free by post 7s. 2d. Lindley's "Guide to the Orchard and Kitchen Garden" we think is out of print; it and London's "Hortus Britannicus" were published by Messrs. Longman. We do not know at what price you can obtain them second-hand.

SALARIES (Beta).—The parties are quite capable of taking care of their own interests.

FRENCH GARDENING MAGAZINES (*H. B.*).—"Revue Horticole," published at Rue Jacob 20, Paris, and "Flore des Serres," by Louis Van Houtte, at Ghent.

CUT FLOWERS FADING QUICKLY (*Gamma Rose*).—We did not publish on the day you name, nor do we remember the recipe. No one could tell the cause of failure unless he knew all particulars.

SEEDLING APPLE (*James Cuthbush & Son*).—The specimen Apple sent is very handsome, and although the flavour is not so good as to recommend it for dessert use, it would be a useful kitchen Apple. The great beauty of its colouring would make it sell well at market.

STORING POTATOES (*R. J. B.*).—Store them in a dry cellar or substantial outhouse, in layers alternating with sand, and covering all with 2 inches in depth of sand.

WHITE FOOTSTIGAN GRAPE (*Mrs. C. W.*).—It will succeed in your cool greenhouse with a south aspect. It deserves the warmest end.

SMALL GREENHOUSE (*T. A. G.*).—No paraffin lamp would exclude frost from the plants, nor could any other source of heat be employed that produced fumes from burning oil, or coal, or gas, unless those fumes could be conveyed by a funnel into the air outside. The fumes would injure and kill the plants. A gas stove would be your best aid.

STORING NETS (*V. torquatus*).—Do not remove the hanks, and put them in jars in layers alternating with sand, and keep in a cellar.

AMARANTHUS HENDERSONII (*J. H.*).—It was exhibited and commended at one of the recent meetings of the Royal Horticultural Society's Floral Committee, and was very showy and effective, presenting great brilliancy and diversity of colour, and the habit, too, was good. No doubt the plants make a brilliant display. When used as table decorations, the contrast of their brilliant colours against the white tablecloth could not fail to be effective. One or two plants of the group appeared to be distinct, the carmine and orange being more vivid, and the dark part much nearer to black. Those varieties we think ought to be propagated from cuttings and named.

ALLOWANCE FOR WEAR AND TEAR OF GLASS STRUCTURES.—MANURE FOR VINE BORDER (*T. H. T.*).—The loss with glass structures is great. They are worth about fifteen years' purchase, more or less according to the substantiality of the structures, but fifteen years is a fair average, and the wear in that time is about equal to the first cost of wood, glass, &c., equivalent to about 64 per cent. per annum. Poultry manure is a good dressing for a Vine border. One bushel per 50 square yards is a sufficient quantity to apply at a time, and is equal to about six bushels of soft bedded manure.

WINTER-DRESSING PEACH TREES (*Id. m.*).—Soft soap 1 lb., flowers of sulphur 1 lb., tobacco pipe-rod gullion, and a wine-glassful of spirits of turpentine well mixed, boiling for about a quarter of an hour, and applying to the trees with a brush at a temperature of 12° to 130°, brushing it well into every hole and crevice, taking care not to dislocate the buds. It should be applied when the trees are at rest, before the buds have begun to swell.

ARTIFICIAL MANURE FOR HAY CROP (*Idem*).—Probably for a hay crop the best manure next to that from the farmyard, is guano, 2 cwt. per acre, applied during moist weather at the close of March or early in April.

HEATING GREENHOUSE (*S. N.*).—You could well heat your greenhouse with a stove, as it would dry the atmosphere too much, but it might be heated by a slow-combustion stove-boiler within the house, having two 2-inch flow-pipes, and the same number of return pipes along one end and the front, having the boiler within the house, and its smoke-chimney taken to the external air clear of woodwork. Write to one of those advertising in our columns stating what you require.

KEEPING GERANIUMS STOCKY.—VIOLE CORNUTA HARDINESS (*Tertia*).—The Geraniums will be kept stiff if they be stopped when about 4 inches high, and each succeeding growth afterwards up to April, keeping near the glass, and giving air whenever the weather is mild. They should not be buddled together, but have room to grow. *Viola cornuta* is perfectly hardy even in exposed situations, the plants being well rooted and established before winter. Your flowers were all crushed; we cannot tell from leaves.

GRAPES NOT COLORING (*L. H.*).—Your bunches of Black Hamburgh Grapes with some berries quite black and others red and withered, are shanked. The cause is mainly an insufficiency of foliage arising from a deficiency of sap, the roots not supplying enough to meet the requirements of the Vines in a dry and hot period. Probably more air, a greater amount of foliage, and not overwatering, would do much to remedy the evil in future. The low and shady situation is not good; but the soil and subsoil appear suitable. The Geraniums thinly planted may not do any great harm, but the border would be better without them, as they will deprive it of much air and warmth. Give the border a dressing of bones (half-inch), an inch thick, pointing them in with a fork, and in spring dress it with soot, making it quite black; when the Lonicas are well set, and also when taking the second swelling before colouring, apply one peck of guano to 20 square yards, and give a thorough watering at a temperature of 75° immediately after each application of guano. Plant the Vine in the outside border the early part of March, before the eyes swell.

WINTERING LOBELIAS.—DAILIAS FROM CUTTINGS (*Chee*).—Lobelias of the dwarf bedding or Etruscan section will not winter safely in a cold frame. The only ones that winter finely in a cold frame are the herbaceous kinds now but little grown. It is a waste of space to winter Lobelias; they are raised so easily from seed, make better plants, bloom longer, withstand drought better, and come so true to name. Some kinds it may be desirable to winter, but only those of which seed cannot cheaply and safely be had, as some of the new kinds. Dailias are best raised from root-cuttings; the shoots when 3 or 4 inches long being taken off with a heel or small portion of the old tuber, and struck in small pots in gentle heat. The main thing is to strike rather early, say February or early in March. When well rooted remove to a cool house, keeping well aired, with plenty of light and room, shifting into larger pots as required, so as to have good, stiff, strong, hardy plants for planting-out in May.

TEMPERATURE FOR STOVE FERNS (*J. C. N.*).—All stove Ferns may be grown well in a good stove in winter November to January inclusive, 55° at night and 60° by day. February to May 5° higher. June to August 10° higher, on both the night and day temperatures first mentioned; and September and October 5° less than from June to August. From October to February inclusive the temperature by day may rise 5° to 10° with sun and air, and from March to September 10° to 15° or 20°, according to the sun heat, giving air moderately, and in proportion to the amount of sun heat, and affording moisture corresponding to the increased temperature.

HIGH RENT (*W.*).—The rent you are to pay for your plot of ground will prevent you from making more of it than a hobby, though you might by working it yourself be able to grow some vegetables for your own use that would give you some return for your outlay. It is useless, however, thinking of making it pay at a rental equal to £75 per acre. By growing a few such things as Cabbage, Cauliflowers, early Potatoes, to be followed by Brussels Sprouts and Savoy for winter, with Celery, a few Peas, Dwarf Kidney Beans, and Scarlet Runners, you may supply yourself with most of what you need in vegetables, and thus have some return for rent, besides the pleasure and health-giving employment of cultivating them. It would be better than allowing the ground to remain idle.

TRAINING AND MANURING VINES (*H. P.*).—Vines trained upright are best treated on the spur system, which insures their breaking regularly, the tops of the rods being depressed before they start. The border is best dressed with manure whilst the Vines are at rest.

GLOXINIA SEEDLINGS (*W. J. B.*).—We should shift the largest plants into 6-inch, and the next size into 4½-inch pots, and it is likely they will flower this month and onwards in a light airy position in the stove, probably up to Christmas, when they may be kept drier, and they will again in February or March start fresh shoots from the base. The old shoots dying away should be removed when the young ones are advanced an inch. For the supports in the conservatory, *Mimosa prostrata*, *Acaëa oleifolia elegans*, and *Habrothamnus fasciculatus*.

TRENTHAM BLACK GRAPE.—LILY OF THE VALLEY FORCING FOR CHRISTMAS (*A. B. C.*).—The smallness of the berries of Trentham Black is probably due to the vigour of the Vine; but from what you say we do not think you have it true, as it is a free setter, and the berries are large and oval. The Lily of the Valley should be placed in gentle heat the middle of November, and if possible a bottom heat of 65° to 70°, and a top heat 55° to 65°. *Lilium auratum* should be potted when the stems turn yellow, and the pots ought to be placed in a cool house or frame safe from frost. Instructions for potting, &c., have been repeatedly given.

SELECT NEW BEEDING GERANIUMS (*F. E. J.*).—Yours is a somewhat difficult question to answer, as there are so many diversities of opinion as to what is new. Some gardeners think that a plant two years old has become almost obsolete, other gardeners that any plant is new if they themselves have only just obtained it. The best new *Scarlets*, including *Crimsons*, are Edward Sutton, General Outram, Harry King, a seedling from Jean Sisley and very like it. *Magenta*.—Not many good new ones of this colour. *Mias Saunders* is good, so is *Isabella*, but truss not large enough. *Pink*.—In this colour Mr. Pearson of Chilwell has given us a great many good kinds, as *Mrs. Taite*, *Contessa Quarto*, *Mrs. Holden*, *Augusta Miles*, *Cannell's Master Christine* is also good, though it drops its petals in hot sun. *White*.—Well, the less said about whites the better; we have never seen a really good white yet, all turn pink in the sun; none is better yet than *Madame Vaucher*.

GLADIOLUS (*T. Simpson, York*).—The spikes which you sent us are fine, and some of them quite equal to named varieties, notwithstanding, as you remark, the bulk of them having been injured by wind and rain.

NAMES OF FRUITES (*T. F.*).—Flemish Beauty. (*W. Foote*).—King Edward's Pear, or more properly, Edwards' King. (*A. B. G.*).—Golden Winter Pearmain, or as it is commonly called, King of the Pippins. (*Horace Huntley*).—White Nonpareil. (*G. Dix*).—1, Urbaniste; 2, Triomphe de Jodoigne; 3, Vicar of Winkfield; 4, Beurre Diel. (*W. S. G.*).—1, Easter Beurre; 2, Chantanelle; 4, Beurre Diel; 5, Vicar of Winkfield. It is quite clear that, judging from the specimens sent, these varieties do not succeed in your district. You ought to graft the trees with varieties better adapted for it, and if you decide upon doing so we will be pleased to furnish you with the names of the varieties which will succeed better. (*Chas. T. Hall*).—Your Grape is very curious, and resembles a small black Tomato. It is, in fact, a combination of two ovaries, in which the sutures of the carpels are so marked as to give the fruit the appearance it has. *Pears*: 1, Beurre de Rance; 2, Beurre de Capiaumont; 3, Fondante d'Automne; 4, Haupden's Bergamot. The malformed Pear is caused by a prolongation of the axis in which there has been first an arrest of growth, and the calycinal segments are developed into leaves. *Apples*: Collini. (*A. Learner*).—1, Marie Louise; 2, Crasane; 3, Beurre Diel; 7, Bellissime d'Hiver; 9, Downton; 10, Ne Plus Meuris. (*C. W.*).—All the Apples which you have sent from an orchard in the west of England are cider Apples, which we cannot undertake to name. No. 2 is Kingston Black; No. 10 is not Manks Collini; No. 7, Chantanelle Pear; 1, Louise Bonne of Jersey Pear; 2, Marie Louise; 3, Beurre de Capiaumont; 4, Duchesse d'Angoulême. (*W. T.*).—Brickley Seedling. (*W. H. P.*).—1, Winter Nels; 2, Figue de Naples; 3, Vicar of Winkfield; 4, Beurre Diel; 5, Passe Colmar; 6, Knight's Monarch. We cannot make anything of the Grape, which is quite smashed. It appears like *Isabella*, an American variety. *Pears*: 1, Beurre de Rance; 2, Duchesse d'Angoulême; 3, Beurre Diel; 6, Winter Nels. (*E. Norwich*).—Your Plum is Queen Mother, a dessert variety. (*Hurst & Son*).—1, Beurre Clairgeau; 2, Duchesse d'Angoulême; 3, Fondante des Bois; 4, Fondante du Comice; 5, Enfant Prodigue. (*Thos. H. Sykes*).—Beurre Amande. (*Shrublands*).—Collini. (*Hogg & Wood*).—We cannot distinguish the Apple, it is evidently an imperfect specimen. (*W. C. D.*). 1, Golden Winter Pearmain; 2, Winter Greening; 3, Unknown; 4, Keswick Collini; 6, Nancy Jackson. (*E. S. Turner*).—The leaf is that of *Liquidambar styraciflua*. A, Fondante de Noël; B, Easter Beurre; C, Knight's Monarch; D, Carrel's Seedling; E, Not known; F, Winter Nels. (*P. Bennett*).—1, White Summer Calville; 2, Birmingham Stone Pippin; 3, Gravenstein; 4, Autumn Pearmain. (*H. M.*).—1, Beurre Clairgeau; 3, Easter Beurre; 4, Louise Bonne of Jersey; 5, Summer Franc Real; 6, Comte de Launay. (*L. J. B.*).—1, Nonesuch; 3, Flushing Spitzenburgh; 4, Fearn's Pippin; 5, Golden Noddy; 6, De Neige. (*T. E.*).—1, Norfolk Storing; 2, Stamford Pippin; 3, Fondante d'Automne; 4, London Sugar.

NAMES OF PLANTS (*W. A. Mount Chisley*).—It is a Fungus, *Peziza aurantia*. (*J. Bab*).—You have not numbered the specimens of Ferns, so it would be useless to publish the names. (*R. A. P.*).—*Betula asplenifolia*, *Asplenium-lanceolatum* Birch. It is hardy. (*X. Y. Z.*).—1 and 4, *Sedum Telephium*; 2, *Achillea tanacetifolia*; 3, *Alchemilla vulgaris*; 5, *Adiantum cuneatum* (?); 6, *Ruscus androgynus* (?), two flowers. (*H. P.*).—20, *Tyrus japonica*, var.; 19, *Sollya heterophylla*; 18, *Campylopus* (material insufficient); 21, *Gaillardia bicolor*, var. *Drummondii* ("Bot. Mag.") 3551. (*O. O.*).—*Dorea* sp. (no fruit); 2, *Davallia (Laciniata)* *gibbosa*; 3, *Verbascum Blattaria*. It is an unusual occurrence. (*Inquirendo*).—Apparently *Scilla maritima*, but your description and drawing are insufficient. (*T. H.*).—We only name six specimens at a time, you send seventeen: 2, *Doodia humulata*; 5, *Nephrodium molle*; 6, *Pteris serrulata*; 7, *Phlebodium aureum*; 9, *Adiantum bispidulum*; 13, *Adiantum cuneatum*.

POULTRY, BEE, AND PIGEON CHRONICLE.

OUTRAGES ON PRIZE POULTRY.

On the 8th inst. I sent to the Farnworth Show a valuable pen of Duckwing Game chickens, where they obtained the first prize. The birds when sent back from Farnworth were all right, but upon their arrival home I found that some rascal had pulled both sickle feathers out of the cockerel's tail. Now this could not have been done by accident, for the bird is young and his sickles were not full grown, being about 2 inches shorter than the straight feathers. This almost convinces me that the bird must have been taken out of the hamper, most probably at the Worcester station, and the feathers abstracted; as Mr. Hewitt, who officiated as Judge at the Show, informs me that the bird's tail was not only right when he judged him, but just prior to his leaving for Birmingham, when he again visited the show tent, the bird was perfect. I believe the injury to be the work of some malicious scoundrel to prevent good birds winning and beating his own. My first-prize Black Red cock at the late Hereford Show had both his sickles broken off, and I am constrained to believe both to be the work of the same hands. I am not able to attend shows with my birds. I should feel obliged if any amateur would kindly be on the look-out, and I would gladly give a guinea to anyone for information to enable me to bring the offender to justice.—JOE MASON, *St John's, Worcester.*

[We fully sympathise with Mr. Mason, and will readily aid in detecting the miscreants. Prevention of crime rather than its punishment being preferable, we suggest that the baskets containing exhibition poultry should be canvas lined; the lid with an edge descending over the side and secured by a padlock, a key of which might be sent by post to the secretary and returned by post by him.—EBS.]

LONG SUTTON POULTRY SHOW.

THE Long Sutton Agricultural Society has several times been unfortunate as regards the weather at the time of the Show. This year it was so again; for soon after the opening, heavy rain came down for some hours, and although it cleared up again, the ground was so saturated that the comfort and pleasure of sight-seeing were spoiled, and doubtless the Society also suffered pecuniarily. However, the fowls were in very good shelter, so that they did not suffer from the rain. They were well fed and attended to, although we think if less paste and more barley had been given it would have been better, as the paste, when supplied in large quantities, has a great tendency to make the pens dirty and uncomfortable. The prizes for poultry were awarded by Mr. Teehay, and those for Rabbits and Pigeons by Mr. F. C. Esquilant. Instead of cups the Long Sutton Society have adopted a system of giving extra prizes of three guineas or two guineas to each section of classes throughout the Show.

The *Dorking* classes were fairly good, but it struck us that the extra-prize bird was in the wrong pen. The occupant of that pen should have been a chicken, whereas the winner of the prize was an old bird, a great deal like one belonging to the owner of pen No. 2, Mr. Moritt, of Gooles. The first-prize Coloured hen was very large. The principal *Cochin* prizes were awarded to young birds, Mr. Lingwood being the winner of the extra with a very promising young Buff cockerel. Mr. Sidgwick's birds were both good and deserving. Mr. Derry showed a very fine Partridge hen, which won the first prize. Mr. Lingwood won another extra prize with one of his wonderful Dark *Brahma* cockerels; Mr. Garner's second-prize bird being of a very similar stamp. In *Brahma* hens the first prize was won by a very beautiful pullet, which will, we think, be very difficult to beat. She was entered at the low price of three guineas. The Light *Brahma* classes were large, and both the first-prize birds were excellent, being particularly good in colour and in shape. The *Hamburg* classes were very good. The extra prize was for some time placed on Mr. Ward's pen, a nice Golden-spangled; this was, however, discovered to be a mistake, and it was eventually placed on Mr. Beldon's Silver cockerel, an extra good bird, with plenty of marking, and very good in comb and ears. Most of the Spangled *Hamburg* prizes went to Silvers; the first and second pullets being very perfect; the third a rich Golden. In the Pencilled classes, however, the prizes went just the opposite way, five out of six being Golden. The *Game* classes contained some good birds, but many of the best were either too young or else not in good-enough feather for exhibition. The *Spanish* classes were almost exclusively composed of adult birds. The extra prize was won by a fine hen, which we thought, however, rather coarse in face. The *French* and *Polish* classes were good but small, many of the best birds being in full moult, and this detracts much from the beauty of the show pen. The best birds in the Variety class were the Black *Hamburgs*, which were very good.

In the *Game Bantams* the special prize was won by a smart young Black Red cock very well shown. The second-prize bird was also a capital one. Mr. Entwistle's highly commended pen was a bird of good shape and colour. In hens the winners were very good, and all, we think, were this year's birds. In *Game Bantam* cocks, any other variety, a very nice Duckwing was first, second being a Brown Red, and third a stylish Pile undoubted. In the hen class a Pile was first. In Black *Bantams* Mr. Beldon won another extra prize with a nice pair. In the Variety class first and second were Golden, third nice Whites.

The *Ducks* were very good classes. The *Selling* classes were well filled; several pens were, however, rather poor. The prize birds were good.

PIGEONS.—Coming to the Pigeons, the best and largest class amongst the *Carriers* was that for birds of this year, many of which were very promising. The other classes were, however, very good, and the *Pouters* were also very nice birds. The *Trumpeter* class was a good one; so was that for *Fantails*, which were all White. *Almonds* were capital, and White African took both prizes in the *Owl* class. The *Barb* classes were large and contained a lot of capital birds, but we did not think the class for this year's birds was anything very extra. The *Turbit* class was good, and Mr. P. H. Jones's Silvers were very fine. In the Variety class first were Pigmy Pouters, second Turbitteens.

RABBITS were capital, amongst the best being Mr. Boissier's Tortoiseshell doe and Mr. Swetnam's Angora doe. The Sale class contained some cheap animals.

DORKINGS (Coloured).—Cock.—1, L. Wren, Lowestoft; 2, J. E. Pilgrim, Hinchley. Hen.—1, O. E. Cresswell, 2, L. Wren.

COCHINS (Cinnamon or Buff).—Cock.—Extra, Henry Lingwood, 2, C. Sidgwick, Kingley. 3, E. Winwood, Worcester. Hen.—1, Mrs. Bentley, Upper Teddington. 2, C. Sidgwick, 3, E. Winwood, Henry Lingwood. 4, G. Freeman, Gosherton Spalding.

COCHIN-CHINA (Any other variety).—Cock.—1, R. S. Woodgate, Pembury, Tunbridge Wells. 2, C. Sidgwick, 3, T. Aspin, Church. Hen.—1, C. Bloodworth, Bay's Hill, Cheltenham. Hen.—1, T. M. Derry, Gidney. 2, C. Bloodworth, Cheltenham. 3, J. A. Sleep, Kingsland, London. 4, C. Sidgwick, 5, T. Aspin, 6, J. Bloodworth.

BRAHMAS (Dark).—Cock.—Extra, Horace Lingwood, Cretingham, Northam Market. 2, W. R. Garner, Dyke, near Bourn. 3, Rev. R. L. Sorey, Lockington Vicarage, Derby. Hen.—1 and 3, Rev. T. C. Peake, Hallaton Rectory, Uppingham. 2, Horace Lingwood, 4, J. Harvey, jun., Thimington, Canterbury; 5, Lantour, Hexton, Amphill; 6, Fritchard, Tettenhall, Wolverhampton. 7, G. W. Petter, Streatham Grove, Norwood.

BRAHMAS (Light).—Cock.—1, G. W. Petter, 2, R. E. Hor-fall, Grassendale Priory, Liverpool. 3, Mrs. Peet, Searnbrook, 4, P. Haines, Palgrave, Diss. Hen.—1, Mrs. Peet, 2, G. W. Petter, 3, J. Bloodworth, 4, Horace Lingwood; 5, P. Haines; 6, J. Bloodworth; 7, J. T. Hincks, 8, W. H. Garnish, Avenue Road, Acton.

HAMBURG (Gold or Silver-spangled).—Cock.—Extra, H. Beldon, Giltstock, Bingley. 2, J. Gee, 3, W. K. Tucker, Ipswich. Hen.—1, T. & W. Fawcett, Beldon. 2, H. Beldon. 3, J. Ward, Bardon Hill, Ashby-de-la-Zouch. 4, W. H. Lindsey, Great Yarmouth.

HAMBURG (Gold or Silver-pencilled).—Cock.—1, H. Beldon. 2, C. J. N. Row, Melford. 3, C. W. Gibbs, Sutton Bridge. 4, T. & W. Fawcett. Hen.—1 and 3, H. Beldon, Giltstock, Bingley. 2, A. F. Faulkner, 4, W. K. Tucker; 5, Smallpage, Coln.

GAME (Black Red).—Cock.—Extra, H. Beldon. 2, S. Matthew, Stowmarket. 3, G. H. Fitz-Herbert, Sevenoaks. Hen.—1, G. H. Fitz-Herbert, 2, S. Matthew, 3, B. Mollet.

GAME (Black Red, any variety).—Cock.—1, J. Cock, St. John's, Worcester. 2, H. Beldon, 3, E. Martin, Sculthorpe. Hen.—1, J. Nelson, Cockshaw, Hexham; 2, H. Wrist, 3, J. Nelson. 2, S. Matthew, 3, H. Beldon. 4, W. Kirby, Hugglescote, Ashby-de-la-Zouch.

SPANISH.—Cock.—1, H. Beldon. 2, J. Laming, Broughton, Preston. 3, W. Nuttage, Northampton. Hen.—Extra, J. Laming, 2, W. Woodhouse, King's Lynn. 3, Mrs. Tomsin, 4, W. Nuttage.

FRENCH.—Cock.—1, W. Cutlack, jun., Littleport (near Great). 2, W. Dring, Faversham (Roadan). 3, G. W. Hibbert, Goudy, Hyde. Hen.—1, G. W. Hibbert, 2, W. Cutlack, jun. (Roadan). 3, E. Lantour (near Great).

POLANDS.—Cock.—1, H. Beldon. 2, W. Boothby, Louth. Hen.—1, H. Beldon. 2, G. W. Boothby. 3, O. E. Cresswell, 4, T. C. Seabitt, Epworth.

ANY OTHER DISTINCT VARIETY.—Cock.—1, H. Beldon. 2, A. J. Sharp, Spalding. 3, R. S. Woodgate. Hen.—1, H. Beldon. 2, R. S. Woodgate, 3, W. Cutlack, jun. 4, T. L. Nash, Sproughton.

BANTAMS (Game, Black-breasted).—Cock.—Extra, W. F. Addie, Fishergate, Preston. 2, J. Nelson. 3, Wells & Sherrin, 4, J. Nelson; W. F. Entwistle, Bradford. Hen.—1, W. F. Addie, 2, J. Nelson. 3, W. F. Entwistle, 4, W. F. Entwistle; J. Nelson.

BANTAMS (Game, any other variety).—Cock.—1, J. Nelson. 2, T. Barker, Hill End, Burnley. 3, W. F. Entwistle, 4, J. Nelson; W. F. Entwistle. Hen.—1, G. Evans, Worcester. 2 and 4, W. F. Entwistle, 3, J. Nelson, 4, W. F. Entwistle; W. Murray, Hexham.

BANTAMS (Black).—Extra, H. Beldon. 2, J. Mayo, 3, R. H. Ashton, Mottam. 4, Mrs. G. Clarke, Long Sutton.

ANY OTHER VARIETY.—1, W. Stringfield, Lowestoft (Gold-laced). 2, M. Leno, Markyate Street (Laced). 3, G. Vincent, Upper H. Roadon, Norwich (White).

DUCKS (Rouen).—Extra, W. H. Robson, Reepham. 2, J. Gee, 3, T. M. Derry, 4, J. Newton; W. Bigott, jun., Eye Hill, Eichey Junction (2); J. Nelson; W. H. Robson.

DUCKS (Aylesbury).—1, T. P. Carver, Langthorpe. 2, Miss M. C. Campain, Deeping. 3, T. Sear, St. Nicholas, Spalding. 4, W. Souche, Whitby.

DUCKS (Any other variety).—Extra and 2, M. Leno, 3, T. L. Nash.

PHEASANTS.—1 and 2, M. Leno.

ORIENTAL BIRDS.—1 and 3, G. Howes, Long Sutton (Rosella Parrot and Lincoln Cockatoo). 2 and 4, W. Jakes, Fleet, Wisbech (Rose Gallat Parrots and Major Mitchell Cockatoo).

TRICKERS.—Cock.—Extra, Mrs. E. B. Bottan, in Gidney. 2, Miss Jordan, Driffield. 3, Rev. N. J. Radley, Hollington House, Newbury. Hen.—1, Rev. N. J. Radley, 2, Mrs. E. B. Bottan.

GEES.—Gander.—1, T. M. Derry. Goose.—1, T. M. Derry.

SELLING CLASSES.—Cock.—Extra and 1, J. Franklin, Torrington, Lynn (Partridge Cochins). 3, J. Laming, 4, G. W. Petter (Brahma); Miss H. J. Maples, Spalding (Light Brahma); T. M. Derry. Hens.—1, Mrs. Peet (Light Brahma). 2, Miss E. M. Maples (Light Brahma). 3, A. Cole, Long Sutton (Cochin). 4, F. Cleaver (Light Brahma); C. G. Cave, Spalding; A. Cole (Cochin); Mrs. G. Clarke (Dorking); Miss T. M. Lowe, Wisbech (Brahma).

CROSS-BRED FOWLS OR DUCES.—1, T. P. Carver. 2, H. C. Naunton, Lynn. 3, A. Cole.

PIGEONS.

CARRIERS (Black).—Cock—1, E. Horner, Harewood, Leeds. 2, R. Fulton, Brockley Road, New Cross. *he*, W. Massey, Spalding. *Hen*—1, E. Horner. 2, R. Fulton. *he*, W. Massey; R. Fulton; E. Horner.

CARRIERS (Any other colour).—Cock—Extra and *he*, E. Horner. 2, R. Fulton. *he*, W. Massey; R. Fulton. *Hen*—1, R. Fulton. 2, E. Horner. *he*, R. Fulton; E. Horner.

CARRIERS (Any variety).—Young.—Cock or *Hen*—1, E. Horner. 2, W. Massey. *he*, W. Massey, Spalding (2); Wells & Sherwin, Spalding; A. Bullyeall, Nottingham; H. Thurlow, Burnham Market; T. Warrell, Spalding; W. Massey (3); J. E. Palmer, Peterborough.

PUTTERS.—Cock—1, P. R. Spencer, Hereford. 2, R. Fulton. *he*, A. Storrar, Peterborough; H. Simpson, Spalding; G. Holloway, jun., Stroud, Gloucestershire; R. Fulton. *Hen*—1, E. Horner. 2, R. Fulton. *he*, Mrs. Ladd, Calcestr; R. Fulton.

TRUMPETERS.—Extra and *he*, R. Fulton. 2, A. A. Vander Meersch, Lower Tooting.

FANTAILS.—1, P. R. Spencer. 2, H. Simpson. *he*, J. F. Loversidge, Newark; R. Fulton; E. Horner.

TUMBLERS (Almond).—Extra, R. Fulton. 2, H. Yardley, Birmingham. *he*, R. Fulton; E. Horner.

TUMBLERS (Any other colour).—1, J. Ford, Monkwell Street, London. 2, E. Horner. *he*, E. Beckwith, Sunderland; H. Yardley; R. Fulton.

OWLS.—1, R. Fulton. 2, T. Chambers, jun., Northampton. *he*, P. H. Jones, Fulham; R. Horner.

BARBS.—Cock—1, J. Firth, Dewsbury. 2, H. Yardley. *he*, H. B. Massey; E. Beckwith; E. Horner. *Hen*—1, H. B. Massey. 2, R. Fulton. *he*, W. Massey; T. Yardley; J. Firth; E. Horner (2). Young.—Cock or *Hen*—1, C. G. Cave. 2, W. Massey. *he*, J. Firth.

ANTWERPS.—1, H. Yardley. 2, W. Gamon, Chester.

JACOBINS.—1 and 2, R. Fulton. *he*, T. W. Dows, Boston.

OWLS.—1, P. H. Jones. 2, E. Horner. *he*, A. A. Vander Meersch. *he*, O. E. Cresswell; H. Yardley; R. Fulton (2).

DRAGONS.—Extra, W. Smith, Walton, Liverpool. 2, W. Gamon. *he*, A. Pick, Grantham.

ANY OTHER VARIETY.—1, A. & W. H. Silvester. 2, H. Yardley. *he*, A. & W. H. Silvester; P. R. Spencer; R. Fulton; E. Horner.

SELLING CLASS.—1 and 2, A. Cole (Carriers). 2, J. Osbond (White Dragons). *he*, A. Dick (White Dragons); Mrs. H. Pickworth, Milton Marsh; Rev. W. V. Long, Tadworth, Surrey (Dragons); G. J. Bentley, Eastcheap, London (Blue English Owls); H. Simpson (White Fantails); F. E. Seward, Chatteris (Silver Dragons); C. G. Cave; H. Thurlow (Barbs); P. R. Spencer; E. Beckwith (Trumpeters); A. W. Wren, Lowestoft (Yellow Dragons).

RABBITS.

LOP.—Buck—1, J. Hume, York. 2, J. Quick, Bryanstone Square, London. *he*, Adams & Miller, Bradford; F. R. Edmondson, Liverpool. *Do*—Extra, R. A. Boissier, Penhurst. 2, T. Myton, York. *he*, J. Boyle, Blackburn; J. Hume.

ANY OTHER PURE BREED.—Buck—1, T. H. Dows (Belgian). 2, R. A. Boissier (Himalayan). *Do*—1, H. Swetnam, Fulford. 2, R. Buffham, Spalding (Belgian).

HEAVIEST.—Buck or *Do*—1, M. Marsland, Goole. 2, P. Booth, Spalding.

SILVER GREY.—Buck or *Do*—1, S. Ball, Bradford. 2, R. H. Giew, Wakefield. *he*, R. Buffham.

SELLING CLASS.—1, W. Kirby (Yellow-and-white). 2, A. Southwell, Wisbech (Yellow-and-white). *he*, J. T. Coaling, Whaphole, Spalding (Black-and-white); W. Beatty (Grey); E. Dring (Sandy); H. P. Rogers, Finchbeck, Spalding (Silver Grey); J. T. Adlard.

JUDGES.—Poultry, Pigeons, and Rabbits: Mr. R. Teebay, Fulwood, Preston; Mr. F. Esquilant, 4, Effra Road, Brixton.

ALTRINCHAM POULTRY SHOW.

This was held on September 24th, and the entries of poultry and Pigeons were exceedingly good both in number and quality.

SPANISH.—Cockerel.—1, H. W. Early. 2, J. Leeming. *Pullet*—1, H. W. Early. 2, J. Leeming.

G.M.E.—Black Red.—Cockerel.—1, J. Platt. 2, T. P. Lyon. 3, J. Fletcher. *Pullet*—1, J. Platt. 2, J. Mason. 3, T. P. Lyon.

G.M.E.—Green Red.—Cockerel.—1, J. Platt. 2, J. Fortune. 3, Ranthirrell and Barrow. *Pullet*—1 and 2, J. Platt. 3, C. H. Wolff. *he*, J. Grimes; C. H. Wolff. *he*, C. H. Wolff; T. H. Wright.

G.M.E.—Any other colour.—Cockerel.—1, J. Fortune. 2, J. Fletcher. 3, T. P. Lyon. *Pullet*—1, J. Fletcher. 2, S. Buckley. 3, J. Fortune.

DORRINGS.—Cockerel.—1, J. Walker. 2, J. Stott. 3 and 4, G. Fox. *Pullet*—1, J. Walker. 2, G. Fox. 3, J. Stott.

COCKINS.—Buff.—Cockerel.—1 and 2, W. H. Crabtree. 3, C. Sidgwick, Keighley. *he*, W. H. Taylor. *Pullet*—1 and 2, W. H. Crabtree. 3, Mrs. Bentley. *he*, T. Stretch, Ormskirk; W. H. Crabtree; W. A. Taylor.

COCKINS.—Any other colour.—Cockerel.—1, W. A. Taylor. 2, C. Sidgwick. 3, R. P. Percival. *he*, R. P. Percival; W. H. Crabtree; W. A. Taylor. *Pullet*—1, H. Goodfellow. 2, R. P. Percival. 3, W. Whitworth, jun. *he*, W. A. Taylor. *he*, W. Whitworth, jun.; R. P. Percival.

BRAHMAN.—Cockerel.—1, H. Lingwood. 2, J. Brookwell. 3, R. Hulse. *he*, R. P. Percival; W. Broadbent. *Pullet*—1, J. Watts. 2, J. Walker. 3, R. Ryder. *he*, E. Pritchard. *he*, R. P. Percival (2); J. Booth; J. H. Pickles; R. Hulse; W. H. Crabtree; J. Brookwell. *he*, T. F. Ansell; Horace Lingwood.

HAMBERGUS.—Spanish.—Cockerel.—1, J. Long. 2, W. Ackley. *Pullet*—1, J. Long. 2, W. M. Mellon. 3, W. Ackley.

HAMBERGUS.—Pencilled.—Cockerel.—1, T. & W. Fawcett. 2, J. Long. 3, W. Speakman. *Pullet*—1, J. Long. 2, W. Speakman.

FRENCH FOWLS.—Cockerel.—1, J. H. Sugar. 2, G. W. Hibbert. 3, W. Whitworth, jun. *Pullet*—1, G. W. Hibbert. 2, E. Yates. 3, W. Whitworth, jun. Longsight. *he*, J. H. Sugar; J. Williams.

POLISH.—1 and 2, J. Fearnley. 3 and *he*, P. Unsworth.

GAME BANTAMS.—Black Red.—Cockerel.—1 and 2, G. Hall. 3, R. J. Hartley. *he*, H. Butler; R. J. Hartley; P. Hartley. *Pullet*—1, G. Hall. 2, F. Steel. 3, J. W. Morris. *he*, R. J. Hartley.

GAME BANTAMS.—Brown Red.—Cockerel.—1 and 2, R. J. Hartley. 3, J. Platt. *he*, G. Hall. *Pullet*—1 and 2, R. J. Hartley. 3, G. Hall. *he*, R. J. Hartley; R. J. Folesong; F. Steel.

GAME BANTAMS.—Any other colour.—Cockerel.—1, G. Hall. 2, F. Steel. 3, R. J. Hartley. *he*, R. J. Hartley; F. Steel. *Pullet*—1, G. Hall. 2, R. J. Hartley. 3, F. Steel. *he*, R. J. Hartley; F. Steel.

BANTAMS.—Any other variety.—Cup, J. W. Morris. 2, G. Hall. 3, R. H. Ashton.

TRUFEYS.—1 and 2, J. Walker. *he*, W. Glassford; J. Brookwell.

GESE.—White.—1 and 2, J. Walker. *he*, W. Hough (2). *Grey*—1 and 2, J. Walker. *he*, H. Simpson; Dr. Davis.

DUCKS.—Aylesbury.—1, R. Hutchinson. 2, J. Walker. *he*, R. Hutchinson; J. Walker. *Rouen*—1 up, J. Walker. 2, T. Wakefield. *he*, T. Wakefield; J. Unsworth; J. Brookwell.

ANY DISTINCT BREED.—1, H. Hoyle. 2, C. Sidgwick. 3, W. A. Tweedale.

PIGEONS.

CARRIERS.—Cup, H. Crosby. 2, W. Henshall. *he*, E. C. Stretch. *he*, J. Stanley (2); W. Harvey.

PUTTERS.—1, W. Harvey. 2, D. M. Garside. *he*, T. W. Townson; W. Harvey. BARBS.—1, T. W. Townson. 2, J. Stanley. *he*, J. C. Boothby; W. Harvey; T. W. Townson. *he*, H. Yardley.

TUMBLERS (Almond).—1, W. Harvey. 2, H. Yardley. *he*, J. Gardner. *Any other colour*—1, W. Harvey. 2, T. W. Townson. *he*, H. Yardley.

DRAGONS.—1, W. J. W. Pass. 2, J. Holland. *he*, H. K. Molyneux; H. Yardley; J. Holland (2); P. McDonald; S. Dronsfield (3). *c*, J. Holland; P. McDonald.

OWLS.—English.—Cup, 1 and 2, T. W. Townson. *he*, E. Lee. *he*, G. Smith. *c*, H. K. Molyneux; P. McDonald. *Foreign*—1, T. W. Townson. 2, F. Steel. *he*, T. W. Townson.

JACOBINS.—1, W. Harvey. 2, F. Steel.

TRUFEYS.—1 and 2, W. H. Woods. *he*, P. McDonald (2); W. H. Woods; C. A. Crat.

FANTAILS.—1, J. F. Iversidge. 2 and *he*, T. W. Townson.

ANTWERPS.—1, C. Bingham. 2, J. Wright. *he*, H. Yardley; J. Stanley (2); R. White.

ANY OTHER VARIETY.—1, F. Steel (Trumpeter). 2, G. Gibson (Archangel). *he*, S. Dronsfield; T. W. Townson; J. Gardner.

SELLING CLASS.—1, J. Stanley. 2, J. Gardner. 3 and *he*, D. M. Garside. *c*, W. J. W. Pass; D. M. Garside.

RABBITS.

LOP EARED.—1 and 2, T. Schofield, jun. *he*, J. Lamb (2); J. Holland.

ANGORA.—1, S. Ball. 2, W. Whitworth. *he*, A. Thompson; R. J. Edleston.

HIMALAYAN.—1, J. Wright. 2, H. B. Bowman.

DUTCH.—1, J. Hallas. 2, F. Haslam.

SILVER GREY.—1, A. W. Whitehouse. 2, W. Whitworth, jun.

ANY OTHER VARIETY.—1, W. Bellhouse. 2, J. H. Sagar.

JUDGES.—Poultry, Mr. R. Teebay; Pigeons, Mr. Tegetmeier.

THE POULTRY-KEEPER.—No. 21.

COCHIN-CHINA OR SHANGHAI.

CINNAMON VARIETY.

In this variety (*fig. 89*) are usually found specimens taller than in the other varieties.

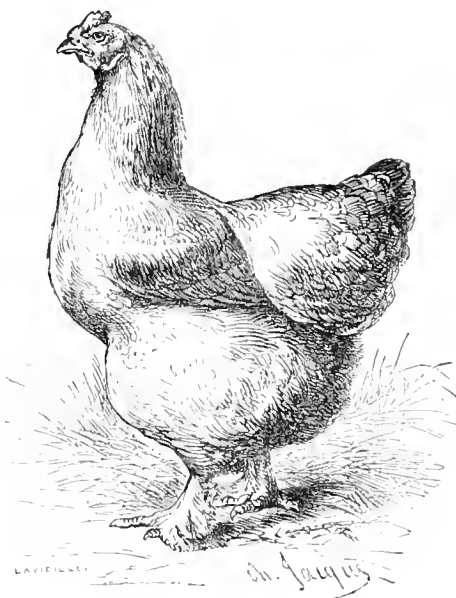


Fig. 89.—Cinnamon Cochin-China Hen.

The plumage of the hen is a reddish yellow colour; that of the cock is of a deep red and golden on the backle, shoulders, and lance-shaped feathers. The breast, the back, and the thighs are dark brick red. The sides, the abdomen, and the foot feathers are tau red, and the tail black, iridescent with green.

BIRMINGHAM SUMMER POULTRY SHOW.

SEPTEMBER 24TH-28TH.

The Birmingham Summer Show is over, the pens are put by. Mr. Watts is arranging his hall again, and all who attended the Show have seen the best specimens of the year. We congratulate this Society on their admirable meeting. We certainly were not prepared for such quality as we saw exhibited. We have attended many such exhibitions, but never have we found the officials more courteous than they were here. The Treasurer himself spread no trouble to make all go on pleasantly, and the exhibitors as comfortable as possible. We hope he was pleased with his entries; had there been more we cannot imagine where the pens would have been ranged, for the whole building seemed full from basement to roof; in fact some of the upstairs rooms were very hot indeed, and so were the

lower rooms at times—so much so that we almost trembled for the lives of some of the birds; but this was all seen to, and the rooms better ventilated at once. The birds were in Turner's pens, and well fed on Spratt's food, &c., and the pens were kept well cleaned out, and the birds generally most carefully attended to. One word only about the pens we must have: We do not care for the way they were arranged. We like them to run on smoothly in rows, and not up and down as here. It is not only puzzling to follow, but hardly puts all the exhibitors on a fair level, for a bird in the top pen has an immense advantage over a bird on the floor, especially as the pens in the bottom tier were very dark. We hope next year some plan will be contrived to make the hall lighter, and we hope sincerely the Show will end on the Saturday, so as to give those who wish it an opportunity of taking their birds home. Five days are too many, especially with young birds, at this season. We put forth these hints in the most friendly way, for the other arrangements were indeed very satisfactory. One plan especially we noticed as good: the numbers of all the pens were written out in order on sheets of paper at the door of the hall, and as each pen came in or went out the number was crossed off the list, and it was thus seen at once what really did come in and what went out. The Judges were Messrs. Hewitt and Felton, and Rev. G. Hodson. We were glad to see Mr. Felton judging his old friends the Cochins, and his awards seemed to give great satisfaction, as, too, did those of the other gentlemen. This is saying a good deal, for it must have been a hard matter to do so at a show like this, where the quality was so good and the numbers so great.

Dorkings had four classes. They came to the front well. In Coloured chickens Mrs. Arkwright cleared all the prizes. The first were very large, but we fancied the cock was a little open in tail. The pullets in the second-prize pen looked elderly, and had very sooty feet. In the third-prize pen the cockerel, judging by his spurs, looked a very early bird. The pullet was very dark, and had white ears. Still they were three splendid pens. The Silver-Grey class was very good. The cup was taken by a pen of chickens. We never remember such splendid colour, and this is the best pair of Silver-Greys we have seen for some time. The second were very large, but inferior to the first in colour. The third contained a beautiful cockerel. White Dorkings were very few, and, save the first-prize, not very good. The first were wonderful in colour and size for their age, being only five months old. In the £3 3s. Dorking class the first were not very large, in fact we did not think much of this class.

Cochins had five classes. Buffs came first. We were a little disappointed in them; we did not think them so good as they should have been. The best pullet was in the cup pen, and the best cockerel in the second-prize pen; both the pullets, however, were good in colour, and the cockerels also. We liked the third-prize pen immensely; the colour was beautiful, and we should have thought this cockerel might almost have been first, but he lacked fluff rather, and was poorly feathered on the legs. Pen 49 (Nash) contained a gigantic Cinnamon cockerel; and pen 50 (Walker) had a splendid pair of chickens, not very large, but grand in colour. The Partridge Cochins were very good. The cup pullet was grandly fluffed, but not very large; the cockerel very rich in colour. The second-prize pen must have run them closely for the cup; they were a grand pen all round. Third went to fair birds. Pen 69 (Tudman), very good indeed, also pen 67 (Tudman), very large, but in the dark and not properly seen. The White Cochins were very good. The cup pen was considered the best pen of Cochins in the Show; they were in exquisite condition and dazzling whiteness. There was a cup for the best pen in the Show except Brahmas, and this pen of White Cochins and a Duckwing Game hen were considered the best two pens, and the champion cup lay between them. It was eventually given to the Game hen; we almost think a pair of Cochins should have the first chance before a single Game hen; but she was a beauty, and of lovely colour. The second White chickens were also very good; the cockerel immense, the pullet very young. The third-prize pen contained a grand pullet, but the cockerel with her was very juvenile. Pen 73 (Birch), highly commended, had a capital pullet, but a leggy cockerel. Black Cochins were a good collection, in fact the best we have ever seen of this colour. Good birds won the cup; the hen nice in colour and shape; the cockerel very large, but badly leggy-feathered, and rather leggy. The second was a large pen, but the cock had grey under hackles, and was not good in legs. The third went to chickens. They were very promising, but we should have placed, most certainly, pen 89 (Darby) before them. This latter pen contained a grand hen, in fact the best we ever saw. Pen 85 (Nash), very promising and good. The £3 3s. Cochin sale class was not up to much, though the first-prize pen was good and colour nice. Pen 106 (Watts) was good, and should have got into the list, we think; pen 91 (Burnell) good in colour, but small.

Brahma (Dark) cockerels were thirty-five in number, and a generally good class. The bird which won the £10 10s. cup was

immense in size and good in shape, yet the second bird must have run him closely, and the third too almost. They were three grand birds, we first thought one the best and then the other, they were all so grand. Pen 131 (Cresswell) was a large bird, good in colour and of fine shape; he will make a splendid bird. Pen 132 (Wright) was a large cockerel, but he is not made up yet; he will, all well, develop into a huge cockerel. In Dark Brahmas pullets we thought the winners very good, but hardly up to the quality of one or two other pens, but they were in so dark a place that it is hardly fair to criticise. Pen 111 (Walker) was a grand pullet. So were pens 191 and 195 (Watts). We did not much care for the third-prize pullet; she was rather light. Light Brahmas were good. We admired the pullets much, Mrs. Williamson's most especially; but the cockerels were hardly old enough for them. There was an inclination to yellow in the cocks. The second-prize pen seemed as good as any. Pen 208 (Holmes), was most promising. Pen 198 (Williamson) will make a wonderful pen.

The £3 3s. Selling Brahma class was not so good as we expected. The winners were cheap birds, still we expected to see more bargains in this class.

Spanish we did not think much of. The second-prize went to good chickens. Pen 264 (Walker) had a good cockerel.

Game were on the whole very good. The cup cockerel was rather coarse. We liked the third Black Red cockerel very much; also pen 281 (Matthews). In Duckwing hens the cup bird was truly superb, we doubt if we ever saw her equal. Mr. Matthews may well be proud of her.

Hamburghs did not muster very strongly. We expected a larger entry from Goitstock. The cup Gold-spangles were in exquisite condition. We admired this pen immensely; their colour was good, and so was their style. In Silver-spangles the cup pen was beautiful. Second also good. In the Pencilled, first in exquisite feather, third pressing closely on the second. Pen 363 (Feast), good. In Black Hamburghs the first were good, so were the third; in fact the pullet in this pen was of most gorgeous colour, almost the best Hamburgh hen shown.

Polands were a capital lot. The winners' names show the quality. In the Dark variety the third pullet was the best in the class, but the cock with her too young.

Houdans brought nearly thirty pens. The first were good, but we liked pen 391 (Dring), or 405 (Wood), as well as any. The second looked like the Faversham stamp too. *Crievs* were good; the winners well placed.

Malays were splendid. The first were in good plumage and hard feather; but the second pressed them closely. The birds in the third prize pen were very young and good chickens.

Silks.—With these we were much pleased. The judging was good. Mr. Hodgson does carry one stamp of bird in his eye—such a relief after the execrable judging of this variety we saw at Bath. We liked the second-prize pen best; the first were a trifle coarse. The third had the best pullet in the class. Pen 436 (Darby), very good. Pen 433 (Cresswell), an admirable pullet.

In the *Variety Class* poor Sultans won first. A smart pen of Minorcas which was second we liked much better, or even a good pen of Leghorns (Fowler), which were third.

Game Bantams were not so good as we have seen at other shows of this year, though the cup pen was grand in colour. These were Piles.

Laced *Bantams* were good. We were delighted to see so many entries, and hope they will muster as well at Oxford. Mr. Leno's Silvers were of beautiful colour. Black Bantams also good; the winning pens fully up to the mark. In the *Variety Bantam* class Pekins won first. They were rather out of condition. White-booted second; the hen rather too big, but the cock of the purest colour. Third very pretty White Frizzled. We should have almost placed this pen higher in the list.

Turkeys were very large and good generally. We admired pen 522 (Fowler) as much as any, though the first-prize pen were very large and heavy-looking. In *Goslings*, two huge birds won, but they looked a trifle elderly. We should have placed Mr. Fowler's Embden gander second. Aylesbury and Rouen Ducks were good. We think the first pen was the cup Aylesbury pen. The third were also a grand pen, as, too, were the third Rouens. Of the Black East Indians we really cannot speak. They might as well have been in a coal-cellar. The pens were so dark it was impossible even to see if they were empty or full. We heard, however, the awards were placed. The *Variety Duck* class was again badly situated, but the collection was a most uncommon one, and we never remember seeing a prettier collection.

This ended the poultry section. We have criticised this department as honestly as possible, but we could not get at the birds from the crush of visitors and darkness of most of the pens to do that justice we would have wished to those pens which are not in the prize list. We fancied many birds were worthy of high commendations which were passed by without one. To some amateur exhibitors a notice of any kind is certainly a kind

of sop after having invested in an expensive entry fee. We hope Mr. Watts made the Show pay; if so we shall expect to see a pair of St. James's Hall next year, for most certainly he can pack no more than the 1350 entries of 1874 in the present building. We have made this report so lengthy we must postpone that of the Pigeons to our next number. We take this opportunity of saying how civilly on the part of the officials does answer. We heard of no one case of grumbling, and in every way all exhibitors were treated alike, no favour or partiality to personal friends being in any way shown, and we received the same courtesy from the feeders and workmen as we did from those higher in office.

DORKINGS (Coloured, except Silver-Gray).—*Chickens*.—1, Cup, 2, and 3, Mrs. Arkwright, Sutton Scarsdale.

DORKINGS (Silver-Gray).—*Chickens*.—Cup, O. E. Cresswell, Early Wood, Bagshot, 2, J. Fotheringham, Fleam, Stirling, 3, J. J. Moser, Kendal, *hc*, Dr. T. Moore, Petershead, 4, J. Hunt, Kington.

DORKINGS (Any variety).—*Chickens*.—Cup, O. E. Cresswell, 2 and 3, J. E. Pugin, Huddley.

DORKINGS (Any variety).—Cup, R. W. Richardson, Meaux Abbey, Beverley, 2, J. Hughes, Kiddleminster, 3, Mrs. E. Williams, Redly, Berwick.

COCHINS (Any variety).—*Chickens*.—Cup, W. A. Taylor, Manchester, 2, C. Sugwick, Rydesden Hall, Keighley, 3, W. A. Burnell, Southwell, Notts, *etc*, T. A. Sash, Sproughton, 4, J. Walker, Rochdale.

COCHINS (Partridge).—*Chickens*.—1, Cup, Of Sidgwick, 2, W. A. Taylor, 3, R. P. Percival, Northwich, Manchester, *hc*, Hon. Mrs. Sugden, Wells (2); E. Tadmam, Whitechurch, Salep.

COCHINS (White).—*Chickens*.—1, Cup, and 2, R. S. Woodgate, Pembury, Tunbridge Wells, 3, Mrs. A. Williamson, Leicester.

COCHINS (Black).—1 and Cup, T. Aspdon, 2, J. Walker, 3 and *hc*, Mrs. Taaffe, Foxborough, Tuck.

COCHINS (Any variety).—1, J. K. Fowler, Aylesbury, 2, C. Bloodworth, Chesham, 3, C. Sidwick, *etc*, J. Watts, Hazlewell Hall, Birmingham, *hc*, G. Pettifer, Hark, *etc*.

BRAHMAS (Dark).—*Cockerels*.—1, Horace Lingwood, Cresting, Needham Market, 2 and 3, T. F. Aspell, Cowley Mount, Needham Market, *hc*, O. E. Cresswell, 4, Wright, Crutch End, London; Horace Lingwood, *c*, Hon. Mrs. A. B. Hamilton, Woburn.

BRAHMAS (Dark).—*Pullets*.—Cup and 2, Horace Lingwood, 3, R. P. Percival, *etc*, R. B. Wood, *hc*, J. Walker, T. Lewis, Wolverhampton; E. Ryder, Newton Bank, Byde; Hon. Mrs. A. B. Hamilton, J. Bennett, G. W. Palmer, Shifnal, W. E. Leches, W. Leches, Salop; J. Watts (2), *c*, J. Beck, Lifford.

BRAHMAS (Light).—*Chickens*.—1, Horace Lingwood, 2, R. E. Hosald, Grassendale Priory, Liverpool, 3, Mrs. A. Williamson, *etc*, Mrs. A. Williamson, Horace Lingwood, *hc*, Rev. G. Watson, Lymington, J. T. Holmes, E. B. H. Harris, Bridgend, Penryn, 4, J. H. Butler, Erdington, *c*, T. A. Dean, Marden, Hereford, 2, P. Barnes, Fairgate, Diss; J. Mitchell, Moseley, Birmingham.

BRAHMAS (Any variety).—1, T. P. Andell, 2, W. B. Etches, 3, E. Kendrick, jun., Lichfield, *hc*, Hon. Mrs. A. B. Hamilton, E. Sharratt, *c*, E. Pritchard, Tettenhall, Wolverhampton, J. Watts.

SPANISH.—*Chickens*.—1, E. Wraywood, Worcester, 2, G. K. Chilcott, Cotham, 3, J. Pitt, Wolverhampton, *hc*, J. Walker.

GAME (Black-brasted or Brown Red).—*Cockerels*.—1 and Cup, T. Dyson, Bahliax, 2, G. H. 1, *ey*, Newark, 3, S. Field, Bicester, *hc*, W. Ferrin, Nantwich, S. Matthew, Stowmarket, G. Bagnall, Draycott.

GAME (Black-brasted or Brown Red).—*Pullets*.—1, G. Bentley, Rickmansworth, 2, T. Dyson, 3, S. Matthews, *hc*, B. Mollit, Balham; S. Field (2); Lunt and Hassall, Market Drayton; J. Foreyth, Wolverhampton (2), *c*, G. W. Ward, Kington, *c*, T. Whitaker, Nettleton, Snowhay; E. Bell, J. Cock, H. E. Martin, Sculphorpe; G. H. Fitzherbert.

GAME (Duckwing, or any other variety).—*Cockerels*.—1, G. H. Fitzherbert, 2, S. Matthews, 3, W. Gough, Early, Skipton, *hc*, H. P. Price, Castle Madox, Brecon, *c*, E. Aykroyd, Eccleshill.

GAME (Duckwing, or any other variety).—*Pullets*.—1 and Cup for best pen in Show, S. Matthews, 2, Wilson & Hodgson, Ilkington, 3, D. W. J. Thomas, Brecon, *hc*, J. A. & H. H. Daveley, Driffield; T. Whitaker; G. H. Fitzherbert; Lunt & Hassall, *c*, T. Whitaker, Nettleton, Snowhay; E. Bell, J. Cock.

HANDICAPED (Gold-spangled).—1 and Cup, J. Long, Loomley, Kent, 2, T. May, Wolverhampton, 3, H. Beldon, Gont-cup, Pingley, *hc*, I. Davies, *c*, G. and J. Duckworth.

HAMBURG (Silver-spangled).—1, H. Beldon, 2, J. Long, 3, W. McMellon, West Glossop.

HAMBURG (Gold and Silver pencilled).—1, H. Beldon, 2, G. & J. Duckworth, Church, 3, J. Long, *hc*, H. Feast, Swansea (2).

HAMBURG (Gold and Silver).—1 and Cup, H. Beldon, 2, J. Long, 3, W. Birch, Barnacle, Coventry, *hc*, C. Sidwick, *c*, E. Leake, Brimfield, Salop.

FOLANDS (Gold and Silver-spangled).—1 and 3, G. C. Atkins, Lightwolds, Birmingham, 2, T. Dean, *hc*, J. E. Earmley, Lowton, Newton-le-Willows; W. A. Taylor, P. Unsworth, Lowton, Newton-le-Willows.

FOLANDS (Black, or any other variety).—1 and 2, P. Unsworth, 3, A. Darby, Shrewsbury.

HUTCHINS.—*Chickens*.—1, Miss C. G. Neville, 2, Mrs. Vallance, 3, Miss Woodhead, Leiston, *hc*, W. Dunn, Faversham; R. B. Wood, Uttoxeter; G. Berry, Little Heathon, *c*, W. H. Coppleson (2).

CREVELLERS OR ANY OTHER FINEST VARIETY. —1, R. B. Wood, 2 and 3, Rev. C. C. Ewbank, Biggleswade, *hc*, W. Dring.

MALAYS.—1 and *hc*, J. Hinton, Warminster, 2, Rev. A. G. Brooke, Shrawardine, 3, R. Hawkins, Seaham.

SILKYS.—*Chickens*.—1, S. P. Broad, Reigate, 2, Mrs. J. T. Holmes, 3, R. S. S. Woodgate.

ANY OTHER VARIETY EXCEPT BANTAMS.—*Chickens*.—1, H. Feast, 2, J. Croote, jun., Wellington, *hc*, Thurnham Bros., Piccadilly End, Hemel Hempstead; J. Long, *c*, J. Watts.

GAME BANTAMS (Black or Brown Red).—*Cock or Hen*.—1, R. Brownlie, Kirkcaldy, 2, T. Barker, Burnley, 3, F. Shumack, Southwell.

GAME BANTAMS (Duckwing, or any other variety).—1 and 3, R. Brownlie, 2, F. Matland, Worcester.

BANTAMS (Gold or Silver-faced).—1 and 2, M. Leno, Markyate Street, 3, A. Robertson, Kilninch, *hc*, J. Walker, *hc*, J. Walker, Brimingham, *c*, C. H. Poole, Bridgewater, Somerset; F. Brand, Mrs. Mayo, Gloucester.

BANTAMS (Black Roscomb).—1, Milner & Lealand, Keighley, 2, H. Beldon, 3, R. F. Parrott, Hensbury, *hc*, F. Ashton, Mottram, *c*, H. Feast.

BANTAMS (Any other variety).—1, J. Walker, 2, E. S. S. Woodgate, 3, A. A. Vander Meersch, Lower Tooting, *hc*, T. Cropper, Bacup; J. Watts.

BANTAMS (Any variety).—1, M. Leno, 2, J. Ossett, Heston, 3, H. Yardley, Birmingham, *c*, J. Watts; G. F. Ward.

POULTRY.—1, E. Kendrick, jun., Newbury, 2 and 3, F. Lythall, Offchurch, Leamington; *hc*, J. Walker, *hc*, Rev. N. J. Killey, J. K. Fowler.

GUSLINGS.—1 and 2, J. Walker, 3, S. H. Stott, Preston, *hc*, F. E. Rawson, Thorpe, Halifax, *c*, J. K. Fowler.

DUCKS (White Aylesbury).—1 and 2, J. K. Fowler, 3, J. Walker.

DUCKS (Rouge).—1, W. Manley, Handsworth, 2, T. Wakefield, Golborne, Newton-le-Willows, 3, J. Walker, *hc*, H. Dowsett, Mesley, Chelmsford; J. H. Hewitt, St. Austell; P. Unsworth.

DUCKS (Black East of India).—1 and 2, G. S. Sainsbury, 3, Rev. J. Richardson, Sandy Beach, *hc*, J. V. Kellaway, Merston, Isle of Wight; G. S. Sainsbury.

DUCKS (Any other variety of Fancy Waterfowl).—1 and Cup, H. B. Smith, Broughton, 2 and 3, M. Leno, *hc*, J. Walker; E. A. Bailey, Tenbury;

Dr. W. Binns, Tudey (2); H. B. Smith; H. S. Edmunds, Handsworth; Mrs. Arkwright, *c*, Mrs. J. Southall, Handsworth; Mrs. Arkwright.

SELLING CLASS.—1, E. Kendrick, jun., 2, J. K. Fowler, 3, J. Watts, *hc*, J. Hughes.

PIGEONS.

CARRIERS (Black).—*Cock*.—Cup and 1, H. Yardley, Birmingham, 2 and 3, W. Siddons, *sen*, *hc*, G. F. Whitehouse, King's Heath, Birmingham; W. Siddons, *sen*, *hc*, W. G. Hammock, 2, W. Palmer, Spelling, 3, Major J. H. Cryer, Southport.

CARRIERS (Dunk).—*Cock*.—1 and *hc*, H. Yardley, 2, W. G. Hammock, Florid, 2, G. F. Whitehouse, *sen*, *hc*, H. Yardley, 2, W. G. Hammock, 3, W. Siddons, *sen*, *hc*, Major J. H. Cryer.

CARRIERS (Any other colour).—*Cock*.—1, J. F. White, Birmingham, 2, E. C. Stretch, Oldsark, 3, W. Massey, Spauling, *hc*, R. Cant, *sen*, *hc*, E. C. Stretch, 2, W. G. Hammock, 3, J. C. Ord, Farnley.

CARRIERS.—*Young*.—*Cock or Hen*.—1, W. Dunmer, 2, W. G. Hammock, 3, W. Siddons, *sen*, *hc*, R. Cant, Broughton (2); H. H. Massey.

POULTRY.—*Cock*.—1, E. Beckwith, Underland, 2, 3, and 4, H. Pratt, Hampton-in-Arden, *hc*, J. Richmond, Oswaldtwistle, *sen*, *hc*, J. Baker, Kew Bridge, 2, 3, and *hc*, H. Pratt.

BABES.—*Cock*.—1 and 2, J. Firth, Dowsbury, 3, F. Smith, Selby Oak, Birmingham, *hc*, J. Dowling, Blackrock, Cork, *sen*, Medal, J. Firth, *Young*.—*Cock or Hen*.—1 and *hc*, J. Firth, 2 and 3, F. Smith.

TUMBLERS (Short-faced).—*Almonds*.—*Cock or Hen*.—1, H. Yardley, 2, W. G. Hammock, 3 and *hc*, J. Ford, Monkwell Street, London.

TUMBLERS (Short-faced).—1 and 2, 3, *hc*, and *c*, W. Woodhouse, King's Lynn.

TUMBLERS (Short-faced, any other colour).—*Cock or Hen*.—1, R. Minnitt, jun., Rochdale, 2, H. Yardley, 3, J. Ford, *hc*, E. Beckwith; E. Horner, Harewood, Leeds, *c*, H. Verdon, Waverley; E. D. Careless, Aston.

TUMBLERS (Long-faced, Flying, Rosewing, Kid-basted, or Mottled Muff-legged).—*Cock or Hen*.—1, W. B. Mapplebeck, jun., 3 and *c*, J. Watts, 3, P. D. Carless, *hc*, E. W. Careless; W. B. Mapplebeck, jun., Moseley, Birmingham.

TUMBLERS (Long-faced, Flying, Saddle or Badge, or any other variety of Muff-legged).—*Cock or Hen*.—1, cup, 2, and 3, W. B. Mapplebeck, jun., *hc*, R. G. Tebbay (2), *c*, W. B. Mapplebeck, jun.; R. G. Tebbay, Grimsby.

TUMBLERS (Long-faced, Flying, Clear-legged, any colour).—*Cock or Hen*.—1 and 2, J. Ford, 3, D. Ridgough, jun., Bradford, *hc*, D. Ridgough, jun.; J. Watts, *hc*, W. F. Edge, Birmingham.

FANTAILS (White).—*Cock or Hen*.—1 and 3, Q. Blumh, Higher Broughton, Manchester, 2, A. Smith, *hc*, Q. Blumh; H. C. Bowman, Higher Broughton; J. F. Loversidge, Newark; Rev. W. Serjeantson, Acton Burnell; J. Richmond.

FANTAILS (Any other colour).—*Cock or Hen*.—1, Q. Blumh, 2, Major J. H. Cryer, 3, H. C. Bowman.

JACOUBINS (Red or Yellow).—*Cock or Hen*.—1 and 3, J. Baker, 2, H. W. Webb, Lower Sydenham, *hc*, L. Allen, London Road, Southwark; W. Croft; T. Holmes, Sydenham.

JACOUBINS (Any other colour).—*Cock or Hen*.—Cup, J. Baker, 2 and *hc*, A. A. Vander Meersch, 3, W. Croft.

TERBITS (Red or Yellow).—*Cock or Hen*.—Cup, A. A. Vander Meersch, 2, O. E. Cresswell, 3, W. Croft, *hc*, C. A. Crafer, Wallington; W. J. Rumley, Ballinacarra; W. Croft; J. Baker, *c*, A. Riddell.

TURKISH (Any other colour).—*Cock or Hen*.—Cup, E. T. Dew, Weston-super-Mare, 2, G. H. Gregory, Taunton, 3, J. Baker, *hc*, P. H. Jones, Fulham (2); J. Nield, Birmingham; O. E. Cresswell (2); J. Baker.

OWLS (English).—*Cock or Hen*.—Cup, J. W. Edge, 2, G. Henry, 5, Ward and Rhodes, Otley, *hc*, E. W. Van Sanden, Shepherds Bush; H. Verdon; A. J. Barnes, G. Guesier; G. Henry, Sandymount; T. W. Clementson, Hexham; H. H. Jones; Dr. W. Binns (2); J. Nield.

OWLS (Foreign).—*Cock or Hen*.—1, L. Allen, 2, P. H. Jones.

SCOTTISH.—*Cock or Hen*.—Cup, J. Lederer, Boodle, 2 and 3, A. A. Vander Meersch, *hc*, H. Yardley.

DRAGOONS (Blue).—*Cock or Hen*.—1, Ward & Rhodes, 2, H. Yardley, 3, W. Smith, *hc*, W. H. Mitchell, *hc*, W. Gamon, Chester; W. Bishop, Dorchester; J. Watts, *c*, L. Whitehead, Drury Lane, London; H. Yardley.

DRAGOONS (Red or Yellow).—*Cock or Hen*.—1, L. Whitehead, 2, F. Graham, Birkenhead, 3, J. Ashworth, *hc*, W. H. Mitchell (2).

DRAGOONS (Any other colour).—*Cock or Hen*.—1, W. Smith, 2, H. Yardley, 3, J. Downing, *hc*, C. F. Staunton, L. Whitehead, *c*, F. Graham; D. Young, Leamington.

DRAGOONS.—*Young*.—*Cock or Hen*.—1 and 2, F. Graham, 3, T. Charnley, Blackburn, *hc*, J. G. Dunn, Durlham, 4, F. Graham, 2, Young; J. Downing, W. Bishop, *c*, R. Woods, Mansfield; J. Ashworth, E. Horner.

ANTWERPS (Short-faced, Blue or Silver).—*Cock or Hen*.—1, 2, and *hc*, W. Gamon, 3, J. F. White, *hc*, J. Gardner, Preston, *c*, J. W. Ludlow, Birmingham.

ANTWERPS (Short-faced, any other colour).—*Cock or Hen*.—Cup, 3, and *c*, W. Gamon, 2, J. W. Ludlow, *hc*, H. Yardley (2).

ANTWERPS (Short-faced).—*Young*.—*Cock or Hen*.—1, H. Gough, Wolverhampton, 2, E. Thompson, Selby Oak, Birmingham, 3, S. Foster, Birmingham, *hc*, J. Deakin, Sheffield; J. Forrest, Birmingham; C. F. Copman, Solihull; A. J. Barnes.

ANTWERPS (Homing, Long-faced).—*Cock or Hen*.—1, J. Lister, Keighley, 2, E. L. Keys, 3, W. K. Pratt, *hc*, J. W. Barker, Reading; J. Nield, *c*, J. W. Barker.

SWALLS.—*Cock or Hen*.—Cup, E. Horner, 2, H. Draycott, 3, J. Gardner, *hc*, F. Braund, Biddford; J. Gardner, *c*, E. Duckworth, Waverley, Liverpool.

MAGPIES.—*Cock or Hen*.—Cup, D. Young, 2, E. Horner, 3, P. H. Jones, *hc*, C. G. Hitchcock, Oxford (2); M. Ord; H. Yardley; W. G. Davies, Swansea; J. Watts.

ARCHANGELS.—*Cock or Hen*.—1, P. H. Jones, 2, R. Wilkinson, Gaidford, 3, J. W. Ludlow, *hc*, W. J. Rumley, H. Yardley; W. H. Dawson, H. W. Webb, *Any other VARIETY*.—*Cock or Hen*.—Cup, J. W. Ludlow, 2, J. H. Inchley, Leamington, 3, H. Yardley, *hc*, M. Ord (Fribback); H. W. Webb; Malle, M. Vander Meersch; J. Watts; F. H. Paget.

SELLING CLASS.—*Cock or Hen*.—Cup, J. Baker, 2, E. Beckwith, 3, W. H. A. Miller, Walsall, 4, H. B. Massey, *hc*, J. Ford (2), *hc*, H. Yardley; J. Nield; F. H. Paget, *c*, H. Yardley, 4, J. Richmond; J. Ford; J. W. Ludlow.

SELLING CLASS.—*Pair*.—1, J. Ford, 2, W. H. A. Miller, 3, F. Braund, 4, T. Chambers, jun., *hc*, E. Beckwith, *hc*, D. Causar, Erdington, Birmingham; F. Braund; H. Yardley; W. D. Richardson, Welles; J. Watts, *c*, S. Howe, Erdington, Birmingham; Rev. A. G. Brooke (Fire Pigeons); J. F. Loversidge.

SELLING CLASS.—*Pair or single Birds*.—1 and *hc*, J. Ford, 2, G. F. Whitehouse (Black Carriers), 3, H. Yardley, 4, J. Baker, *hc*, E. Beckwith, *c*, W. Croft (Black Jack).

JUDGES.—*Poultry*.—Mr. E. Hewitt, Rev. G. F. Hodson, and Mr. C. Felton. *Pigeons*.—Mr. F. Esquilant, Mr. H. Allsop; and Mr. G. Gorden for Flying Tumblers.

SOUTH STOCKTON ORNITHOLOGICAL SHOW.—From a schedule before us we note that an Exhibition of Cage Birds, open to all England, will take place at South Stockton on the 16th and 17th of October, when prizes of 10s., 5s., and 2s. 6d., will be awarded to each of the following breeds of Cage Birds: Belgians, Norwich, Cinnamon, Lizards, Yorkshire, Clear Green,

any other variety, cages of sixes, Males, Goldfinches, Brown Linnets, &c. A silver medal, value £1, will be awarded to the exhibitor obtaining the greatest number of points. The entries are announced to close October 10th, and it is stated that the surplus of the proceeds will be given to the Cottage Hospital, a praiseworthy act indeed, and which deserves all support.

ELLESMERE POULTRY SHOW.

THE arrangements for this Show (held on September 25th), do not admit of improvement, and the weather proving all that could be desired, the greatest amount of success resulted. In fact, this has been by far the best Show yet held in the district.

All the *Gama* chickens were unexceptionably good, perhaps never exceeded at any show; but strange to say, the class for single Game cocks proved the worst in the Show, the two prizes only being awarded, and even those with difficulty. In spite of so many as five principal shows being held simultaneously, the *Cochins*, whether Buff or Partridge-feathered, were such as can be but rarely met with at any exhibition; in both of these varieties the winners were of marvellously good quality, and in this instance the majority of the highly-commended pens would have readily secured prizes at most shows. The *Spanish* class would have been a credit to even a Bristol meeting, the first prize going to that district. *Hamburghs* were far better than common in this neighbourhood; and the *Grey Dorkings* were few but very perfect. In *Turkeys*, *Geese*, and *Ducks* the known popularity of this district was fully maintained; in fact, it would be hard to meet with better ones.

In *Bantams* the Black were the best of any. A very large Selling class contained some first-rate bargains, which were quickly claimed by ready purchasers.

(From a Correspondent.)

THE Meeting of the Oswestry District Agricultural Society was held this year at Ellesmere. The poultry were penned under a good tent, and the arrangements seemed very satisfactory. Mr. H-witt judged. The birds were all of this year and quite up to the average; in fact, considering there were four more shows being held elsewhere, we were much surprised to find such good specimens. The day was lovely—quite August weather, consequently the birds seemed to feel the heat, though the tent was nicely ventilated and care taken of the birds. Only one thing, however, we must mention: we saw no chaff or grit at the bottom of the pens—nothing but the bare boards, which so soon become soiled, and then spoil the appearance of the birds and the look of the pens generally.

The catalogue commenced with Black Red *Gama*. A beautiful cockerel was in the first-prize pen. They were only entered at 30s. and were quickly claimed, and a bargain they were. The second were good, but not of the quality of the first. Two good pens were highly commended. In Brown-breasted only two good pens appeared; they were both in good feather and of nice colour. In the next class a nice Duckwing won—in fact all the *Gama* were good. *Dorkings* only mustered two pens, both poor, and not equal to what we generally see at this Society's shows. *Cochins* were very good indeed; they would be a credit to any exhibitor, but they were most stupidly classed—Buffs and Whites in one class, Partridges in the other. We hope next year the Society will give classes for each of the three colours. We feel sure they would all be well supported. In the first class Buffs won both prizes; they looked very much like Capt. Heaton's stamp. The pullets were both beautiful, the colour being so good. The first cockerel was a large bird; the second cockerel not so large, but grand in colour. Mr. Sidgwick's highly-commended pen was nice; the same pen we think we saw at Aylesbury. A very good pair of Whites (Woodgate) were also highly commended; the cockerel very undeveloped, but well feathered and white; the pullet young and promising. In Partridges both the prize cockerels were good in size, shape, and colour; the pullets looked rather dull and elderly, but were good in pencilling. *Spanish* were a small and good class. The first were nice forward chickens; pen 29, highly commended (James), very promising. Dark and Light *Brahmas* were both good classes. We thought the best pullet was certainly in the first-prize pen, while the best cockerel was in the second, but the latter's comb was not good. Several good pens were highly commended, especially those of Messrs. Dean and Etches. Lights were admirable; we fancy, however, there is a tendency to bad combs in the Light cockerels. The first-prize one had this failing, and he was rather yellow, but he was good in style and shape. *Hamburghs* came well to the front, all varieties being good. In the Pencilled the first went to good Silvers, very young, but good in all points; second nice Golds; pen 57 (Carr) was also very good. In *Spangies* Silvers won again—a capital pen, and the highly-commended pens were also good birds. *French* had two classes, *Creves* and *Houdans*. There were only two pens of the former; both had well-grown chickens, and of a good black colour. The first *Houdans* were very fine; this pen contained the best cockerel we have seen this season;

his condition was perfect. Second also good, but not looking in such good feather as the first. Several good pens were highly commended. Of *Game Bantams* there were but two entries, and the birds only fair. In the next Bantam class young but good Blacks won first, and fair Gold-faced second. Two more good pens of Blacks were noticed.

Turkeys were a capital—quite a noble-looking collection, and so were the *Geese*, two wonderfully good young pens of goslings winning. *Aylesbury* and *Rouen Ducks* were also good. The former were not up to the Fowler standard, still they were well-grown ducklings. In the Variety Duck class good-coloured but very large Black East Indians won; second and highly commended, *Fancy Waterfowl*; highly commended (Kendrick), large East Indians.

The *Sale* classes were not up to much. Each pen had to contain three birds, and the price being limited to 30s. per pen, we can easily account for the poor quality. The first prize went to nice Black-breasted chickens, second to Ducks.

The local department was a great success. *Turkeys* were first and *Geese* second, both lots being good, useful, farmyard birds, and these are the kind of birds such classes are made to encourage.

Some extra *Game* classes of 1874 birds finished up the Show, which from its good management and full attendance must, we think, have been a great success. We give awards below.

GAZE.—Black-breasted Red.—1, G. Cottle, Westleton, Salop. 2, Mrs. Wilkinson, Green Hays, Manchester. *hc*, P. A. Beck, Galsfield, Welshpool; W. C. Phillips, Worcester. *Brown-breasted Red*.—1, T. Dyson, Halifax. 2, Rev. P. G. Bentley, Westleton. *Duckwing Greys and Whites or Piles*.—1, J. Mason, Worcester. 2, W. C. Phillips.

DORKINGS.—1, E. Shaw, Plaswilmot, Oswestry. 2, Mrs. Somerville, Chirk, North Wales.

COCHINS.—*Brown or Partridge*.—1 and 2, E. Tufman, Ashgrove, Whitclough, *hc*, C. Sidgwick, Kendley. *White or Buff*.—1, W. H. Crabtree, Levenshulme, Manchester. 2, W. Whitworth, jun., Longgait, Manchester. *hc*, C. Sidgwick; K. S. S. Woodgate, Pembury, Tambridge Wells. *c*, Mrs. E. Wilkinson.

SPANISH.—1, J. Giddon, Bristol. 2, H. Wilkinson, Earby, Skipton. *hc*, Mrs. Tonlon, Bristol; E. Winwood, Worcester; F. James, Peckham Rye.

BRAHMA.—*Pootras*.—*Dark*.—1, J. H. Pickles, Etrichale, Southampton. 2, W. H. Crabtree. *hc*, W. B. Etches, Whitechurch; E. Wilkinson; T. A. Dean, Marton, Hereford. *c*, W. B. Etches; Bridgewater & Yoxall, Welnesbury. *Light*.—1, H. Boulton, Llandysul Rectory, Montgomery. 2, T. A. Dean. *hc*, C. Morris, Chester (2). *c*, Miss S. Cotes.

HAMBURGH.—*Silver or Gold pencilled*.—1, J. Long, Bromley Common. 2, Mrs. G. M. Rolis. *hc*, G. Kirby, Ludlow, Salop; F. B. Lowe, Whitechurch; J. Carr, Swansea; J. Robinson, Garstang; Mrs. G. M. Rolis. *c*, T. G. Jones, Llansaintfrid. *Silver or Gold-spangled*.—1, J. Robinson. 2, T. Blakeman, Tevenhall. *hc*, J. Long; J. Carr; Mrs. G. M. Rolis.

GREY.—*Geese*.—1, R. B. Wood, Uttoxeter. 2, G. W. Hibbert, Godley, Hyde. *BANTAMS*.—1, G. W. E. Wood. 2, R. B. Wood. *hc*, R. B. Wood; C. Morris (2).

c, E. Williams, Henllys Berriew, J. Robinson.

GAME BANTAMS.—1, J. Long. 2, J. Cowburn, Maesgarneid, Corwen.

BANTAMS.—1, R. H. Ashton, Mottram. 2, H. Yardley, Birmingham. *hc*, R. H. Ashton; T. Dyson.

TURKEYS.—*Young*.—1, G. Robinson, Llandrinio. 2, E. Kendrick, jun., Lichfield. *hc*, N. J. Ridley, Newbury; W. B. Etches; Mrs. Somerville. *c*, J. Cowburn.

ELDERLY.—1, T. Mills, Scacombe. 2, W. B. Etches. *hc*, P. Cook, New Marton, Ellsworth; E. Shaw.

DUCKINGS.—*Aylesbury*.—1, Rev. G. R. Bailey, Madeley, Newcastle. 2, E. Shaw. *hc*, W. H. Crewe, Derby (2). *Rouen*.—1, W. B. Etches. 2, E. Kendrick, jun. *hc*, E. Shaw.

DUCKS.—*Any other variety*.—*Any age*.—1, E. Shaw. 2, H. Yardley. *hc*, E. Kendrick, jun.; Mrs. G. M. Rolis.

SELLING CLASS.—*Any age*.—1, E. Smith, North, Oswestry (Black-breasted Red); 2, E. Shaw (Ducks). *hc*, G. Roberts, Woodhill, Oswestry (Game); J. Wainwright, Galsfield, Welshpool (Black-breasted Game) (2); H. Wilkinson; E. Smith (Black-breasted Red); E. Shaw. *c*, Mrs. H. Floukes, Montgomery (Light Brahmas); T. Groves, Shrewsbury (Cochins); F. Edwards, Penybont, Chirk (Silies).

LOCAL CLASSES.

TURKEYS, GEESSE, DUCKS, OR FOWLS.—1, P. O. Gull, Trewern (Turkeys). 2, Mrs. C. E. Blackwell, Rayton-at-Towans (Geese). *hc*, Mrs. Somerville (Turkeys); E. Shaw (Turkeys).

GAME.—*Black-breasted*.—*Chickens*.—1, P. A. Beck. 2, J. Wainwright. *hc*, C. H. Bull, Caeglas, Oswestry. *Any colour*.—*Pullets*.—1, P. A. Beck. 2, C. H. Bull. *hc*, E. Shaw; T. Edwards, Chirk, Raibon. *c*, Rev. P. G. Bentley. *Cock*.—1, E. Shaw. 2, P. A. Beck.

DORKINGS.—*Chickens*.—1, Mrs. Somerville. 2, E. Shaw.

JUNCOE.—Mr. E. Hawitt, Elen Cottage, Sparkbrook, Birmingham.

AYLESBURY POULTRY SHOW.

As might be fairly anticipated, *Aylesbury Ducks* were the leading feature of this Show, and we are happy to say no one ever saw a better collection, Mr. Fowler as usual being at the head of the poll. The young drake in the first-prize pen is certainly the best that we can call to remembrance. *Rouens* were equally praiseworthy. *Brahmas* and *Cochins* were shown of the finest possible quality, though the first-prize Dark *Brahma* chickens were scarcely so matured as could be desired. The *Game* fowls were grand classes, Mr. Matthews being triumphant with capital birds. *Hamburghs* were better than customary at shows held so far south. The class for *Fancy Ducks* was most praiseworthy, and the birds were all shown in the greatest perfection of feather. The first prize in the variety Ducks was awarded to very exquisitely-feathered *Vidua* Ducks, the second prize to a pair of remarkably fine *Cayuga* Ducks, the third being allotted to *Bahamas*. As many of our readers may feel interested in the extraordinary weights attained by *Aylesbury Ducks*, we subjoin those of the three winning pens, 19 lbs.; 17 lbs. 11 ozs.; and 17 lbs. 4 ozs. This

was the actual nett weight per couple, and by young ones like the first-prize pen we believe has never been surpassed, nor even equalled. Amongst the most interesting and unique exhibits at the Aylesbury Show was a pair of Amherst Pheasants, the property of Baron A. de Rothschild, shown as extra stock; they were in the most perfect and lovely feather imaginable, and were the most noteworthy pen in the Show. They were, as no prizes were scheduled for extra stock, only very highly commended. Being sent in such faultless condition, it is hoped these rare birds received no injury to their plumage by their visit to the Aylesbury Exhibition. It is almost needless to say the attention of the Managers, and the arrangements generally, were all that anyone could wish for, and we are informed that the whole meeting was highly successful.

DORRINGS.—1, T. C. Burnell, Micheldever. 2, Mrs. A. Tindal. 3, O. E. Cresswell, Early Wood, Bagshot. *hc.* R. Trevellick, Tring; Mrs. E. Williams, Icknield, Burrow.

BRAHMAS.—1, Lady Gwydyr, Stoke Park, Ipswich. 2, W. J. Jervis, Pinner. 3, H. Feast, Swansea. *hc.* S. W. Hallam, Whitwick, Leicester. *c.* J. K. Fowler, Aylesbury; W. Seward, jun.; M. Leno, Markyate Street.

SPANISH.—1, W. Nottage, Northampton. 2, E. Vinwood, Worcester. 3, F. James, Peckham Rye. *c.* H. Feast.

COCHINS.—1, Land Cup, Lady Gwydyr. 2, J. Walker. 3, W. A. Taylor, Manchester. *hc.* Mr. A. Tindal, Aylesbury (2). *c.* C. Sidgwick, Rydblesden Hall, Knebly; C. Bloodworth, Bays Hill, Cheltenham. *Partridge.*—1, W. A. Taylor. 2, C. Sidgwick. 3, ant. *c.* J. K. Fowler. *White.*—1, 2, and 3, R. S. S. Woodgate, Pembury, Tunbridge Wells. *hc.* C. Bloodworth; J. Funge, Long Marston. *c.* F. Belford; A. F. Faulkner, Thrapstone.

GAME.—1 and Cup, S. Matthews, Stowmarket. 2, J. Cock, Worcester. 3, Mrs. A. Tindal. *hc.* G. Bentley, Rickmansworth (2); G. Bagnall, Draycott, Stoke-on-Trent; Mrs. A. Tindal.

PHEASANT.—1, J. J. Madden, Biggleswade. 2, Rev. N. J. Ridley, Hollington House, Newbury. 3, H. Feast. *hc.* G. W. Hibbert, Godley, Hyde; J. K. Fowler; Mrs. A. Tindal; W. Dring, Faversham.

HAMBURG.—*Gold or Silver-pencilled.*—1, T. & W. Fawcett, Baildon. 2, H. Feast. 3, S. W. Hallam. *hc.* J. Walker, Rochdale; O. E. Cresswell. *Gold or Silver-spangled.*—1 and Cup, T. & W. Fawcett. 2, J. Long, Bromley, Kent. 3, S. W. Hallam.

BANTAMS.—*Game.*—1, Wingfield & Andrews, Sidbury, Worcester. 2, T. Bradbury, Buckingham. 3, J. Long. *hc.* W. Adams, St. Clements, Ipswich; M. Leno, Wingfield & Andrews; H. Gurney, jun., Aylesbury. *Any other variety.*—1, J. Walker. 2 and 3, M. Leno. *hc.* R. S. S. Woodgate; J. K. Fowler; M. Leno; J. Mayo, Gloucester. *c.* H. Feast.

DUCKS.—*Aylesbury.*—1, 2, and 3, J. K. Fowler. 3 and *hc.* J. C. Hedges, Aylesbury. *c.* T. Kingsley, Boarscroft, Tring. *Rouen.*—1, 2, and 3, W. Evans, Prescott. *hc.* J. Walker; J. Newton, Siladen, Leeds. *c.* R. Gladstone, jun., Broad Green, Liverpool. *Any other variety.*—1 and 3, M. Leno. 2, J. K. Fowler, *hc.* J. Walker; M. Leno.

AMERICAN FOWLS.—*White Leghorns, Brown Leghorns, and Plymouth Rocks.*—1 and *c.* J. K. Fowler. 2, A. Kitchen, Dunsdale, Westham. 3, J. Long.

DUCKS.—*Aylesbury.*—1, W. Soton, Aylesbury. *hc.* Mrs. M. Watson, Tring; R. Trevellick, Tring. *c.* F. Payne, jun., Aylesbury; G. Rodwell, Aylesbury.

ANY OTHER DISTINCT VARIETY.—1, J. Long. 2, J. K. Fowler (Leeds). 3, R. S. S. Woodgate (White Silvers). *hc.* J. Walker; A. Darby, Little Ness, Shrewsbury; Rev. N. J. Ridley, Malsay; W. A. Taylor (2). *c.* H. Feast.

SILVER CLASS.—1, F. Belford, Great Berkhampstead, White Cochins. 2, J. K. Fowler. 3, C. Bloodworth (Silver Polands). *hc.* T. Kingsley (Ducks). *c.* R. Harver, Chaddington, Euston.

EXTRA STOCK.—*vic.* Sir A. de Rothschild (Pheasants).

JUDGE.—Mr. E. Hewitt, Eden Cottage, Sparkbrook, Birmingham.

DERBY POULTRY AND PIGEON SHOW.

THE above Show was held in two spacious marquees in the grounds adjoining the Derby Cattle Market on Wednesday the 23rd of September. On the whole the Show was a most successful affair, vast numbers of people visiting it. The principal attractions were the *Geese*, *Ducks*, and *Turkeys*; the *Brahmas* and *Dorkings* also being good.

THE PIGEONS were few in number; the *Fantails* being the best.

THE Judges were the Rev. T. O. Grady and Mr. J. R. Dobbin. The following are the awards:—

DORRINGS.—*Coloured.*—1 and 2, Mrs. Arkwright, Sutton Scarsdale. *hc.* C. R. Colville, Lullington. *White.*—1, Mrs. A. Eley, Hill Top. 2, S. T. Vernon, Kirk Langley.

SPANISH.—1 and *c.* W. Storer, Mickelover. 2 and *hc.* G. A. Crew, Etwell.

GAME.—*Dark-breasted.*—1, Earl Londoun. 2, C. Jordan, Thulston. *hc.* Earl Londoun; W. Hollingworth, Dale Abbey; G. Cowlishaw, Derby; J. A. Wheatcroft. *c.* Earl Londoun. *White or Pale.*—1 and 2, G. Cowlishaw.

HAMBURG.—*Gold-pencilled.*—1 and *hc.* W. Jackson, Alton. 2, J. Langley. *Gold-spangled.*—1, Withwell. 2, C. Pickering, Kirk Langley.

SILVER-PENCILLED.—1, F. W. Meynell. 2 and *hc.* G. Brough, Bradford. *Silver-spangled.*—1 and *hc.* C. Packer ng. 2, H. Hingley, Ralborne.

COCHIN-CHINAS.—1, Rev. R. Fielden, Mugginton; Rev. R. Storr, Lockington. 2, Rev. R. Fielden. *hc.* F. Holbrook, Derby.

BRAHMAS.—*Light.*—1, W. Thorn, Stanton-by-Bridge. 2, F. Holbrook. *Dark.*—1 and 2, Mrs. Arkwright. *hc.* F. Holbrook; Rev. R. Storr; G. A. Crew.

CROSSBRED OR ANY OTHER DISTINCT VARIETY.—1, A. F. Hart, Ravenstone. 2, S. T. Vernon. *hc.* and *c.* Rev. R. Fielden.

DUCKS.—*Rouen.*—1, S. Robson, Melbourne. 2, R. Johnson, Kirk Ireton. *hc.* G. Meynell. *Aylesbury.*—1 and 2, G. A. Crew. *hc.* J. Wood. *c.* W. Hollingworth.

GESE.—1 and 2, C. R. Colville.

TURKEYS.—1, J. Matthews, Repton. 2, W. Faux, Coleorton.

PIGEONS.

ROCK OR DOVECOCK.—1 and 2, W. R. Dick, Ticknall.

ANTWERP OR BELGIANS.—1, F. Holbrook. 2, J. Langley, Mickelover.

TUMBLERS.—1, J. A. Wheatcroft. 2, W. E. Barrows, Derby.

FANTAILS.—1 and 2, F. Holbrook. *hc.* J. Wood, Soudon.

ANY OTHER DISTINCT VARIETY.—1, 2, and *hc.* J. Wood.

furnishing me with the name and address of any person who keeps this variety.—JOSEPH KING, Secretary.

WETHERBY POULTRY SHOW.

THE thirty-fourth Show of the Wetherby Agricultural Society was held in a field on Colonel Gunter's estate, on September 25th. The day was very fine, and a large number of fashionable people from the popular watering-place of Harrogate visited the Show. The poultry prizes were very poor, a policy the folly of which we wish to impress upon the Council of this Society; the entries, consequently, were not large, and yet there were some very good specimens. *Geese* were good, but both classes of *Ducks* were even better, *Rouens* and *Aylesburies* winning respectively in both young and old. The two pens of *Guinea Fowls* were fine; while *Cochins* and *Spanish* were very poor; but, as might be expected, the *Dorkings* in both classes were very good, the young, especially, being birds of great frame. *Game* were of moderate quality, while both *Polands* and *Hamburgs* were very poor. In the Variety class *Crève-Coeurs* were first, and very pretty *Silkie* second. In pullet and cockerel first were *Light Brahmas*, second *Black Hamburgs*.

In most of the classes of *Bantams* some misconception of the rules had led to the mixing of old and young in the adult class, and the consequence was that some of the best in the two classes had to be left out. In *Bantams* young *Game* were first and *Black* second.

PIGEONS had but one class with twenty-three entries, and some very good birds were shown. Prizes were awarded in duplicate. First, by a long way, was a very good pair of *Blue English Owls*; extra first, good *Red Pouters*. Second came a pair of *Silver Dun Antwerps*; extra second, young *Dun Carriers*. Third, *White Pouters*; and extra third, *Red Jacobias*.

RABBITS, one class, brought eight entries; the first were *Sooty Fawn Lops*, and second *Grey-and-white Lops*.

GESE.—1, J. Simpson. 2, O. A. Young, Driffield. *hc.* and *c.* J. Farrar, Brackenthwaite.

DUCKS.—1 and 2, Carver, Boroughbridge. *c.* O. A. Young. *Ducklings.*—1 and 2, Carver. *hc.* O. A. Young.

GUINEA FOWLS.—1, O. A. Young. 2, J. Farrar.

COCHIN-CHINAS.—1 and 2, R. J. Raworth, Harrogate. *c.* O. A. Young. *Chickens.*—1, Ibottson, Whitby. 2, W. Stanton, Driffield. *hc.*—Ibottson; W. Stanton.

SPANISH.—*Black.*—*Chickens.*—1, O. A. Young.

DORRINGS.—1, T. E. Kell, Wetherby. 2, J. Robshaw, Whitley. *Chickens.*—1 and *hc.* T. E. Kell.

GAME.—1 and *hc.* J. Watson, Knaresborough. 2, O. A. Young. *c.* J. Robshaw. *Chickens.*—1 and *hc.* J. Watson. 2, O. A. Young.

POLAND.—1, Miss Payne, Galway. 2, C. Walker, Boroughbridge. *Chickens.*—1, O. A. Young. 2, Miss Payne. *c.* C. Walker.

PHASANT.—*Golden.*—1, Carver. *Silver.*—*Chickens.*—1, J. Robshaw.

CHITTIPAT.—1, Wells & Sherwin. 2, B. Myers, Chint. *c.* J. Robshaw. *Chickens.*—1, N. Williams, Knaresborough. 2, B. Myers.

BAND OR CROSS BREED.—1, O. A. Young. *Chickens.*—1, Carver. 2, Blackborough & Holdsworth. *hc.* O. A. Young; J. Robshaw; N. Williams.

BANTAM.—*Silver or Gold-pencilled.*—1, F. Iswell, Knaresborough. 2, Wells & Sherwin. *Black.*—1, O. A. Young. *Any other variety.*—1, C. Triffitt. 2, Blackborough & Holdsworth. *Any variety.*—1, Wells & Sherwin. 2 and *hc.*—Carver. *c.* Wells & Sherwin.

PIGEONS.—1, T. E. Kell; Wells & Sherwin. 2, Carver; T. E. Kell. 3, Wells & Sherwin; O. A. Young. *hc.* T. E. Kell (2); Wells & Sherwin (2); O. A. Young. *c.* T. E. Kell; R. Pickersgill.

RABBITS.—1 and 2, J. Wharton, Bramham. *hc.* G. H. Atkinson, Wetherby.

JUDGE.—Mr. E. Hutton.

CHADDERTON POULTRY SHOW.

THE meeting of the Chadderton Agricultural Society was held September 26th, and in addition there was a magnificent collection of poultry, all of this year. The pens were roomy wire ones, and were well arranged on two sides of the field. The day was beautifully fine and warm, in fact a thorough summer day; and in the afternoon we were pleased to see indications of the Society not being without considerable funds for the next year, for visitors poured in by thousands.

The *Game* class was the first, they were all shown in pairs. There were eight entries, and the Judges awarded three high commendations besides the two prizes; the first went to a really grand pen of *Brown Reds*; the second to good *Piles*. The commended pens were all *Brown Reds*. The prize *Spanish* were very good, both first and second. In *Cochins*, the first went to a really good pen of *Partridge*, the second to nearly as good a pen of *Buffs*. In *Brahmas*, all were *Dark* except one pen. The first was a grand pen in all respects, the second nearly equal except the pullet. The very highly commended pen was really good, the pullet better than in the second-prize pen, but not equal in cockerel. Only the first-prize *Dorkings* possessed much merit. The *Golden-spangled Hamburgs* were good; the *Silver* very good. Of *Golden-pencilled* the prize birds were very good, and in *Silver-pencilled* the same. We now come to the best class in the Show, the *Black Hamburgs*, they were really grand—ten pens, and not an indifferent one among them. An extra second was given, one very high commendation, and two high commendations. The cup for the best pen of *Hamburgs*

was awarded here to one of the best pens we ever saw, good in comb, earlobe, and very brilliant in colour. They were bred and owned by one of the oldest breeders in that locality, and he has reason to be proud of his success. The Variety class were all poor. There were some good Game Bantams; first were Duckwings, second Black Reds.

The Aylesbury Ducks were a good class, but the Rouens were the best and the largest class, containing fourteen entries, and many of them were good large birds. Of Geese there were eight entries, the winners very large.

PIGEONS.—Tumbler came first in the list. First were good Mottles, second good Kites. Carriers were a medium class. In Owls there were fourteen entries, and four were highly commended besides the prize pens. This was a good class. In Dragons there were fifteen entries, some very good birds, but as a class we thought it not so good as some we have seen of late. Belgians were divided into two classes, Long and Short-faced; seven entries in the former, and eleven in the latter. Most of these were very good. In the Variety class there were twenty entries, and some extraordinarily good birds were amongst them.

RABBITS.—There were only two classes, Lop-eared and Any other variety, but there was nothing of great merit.

GAME—Chickens.—1, C. W. Brierley, Middleton. 2, J. Fortune, Morton Banks, Keigley. *he*, M. Ormrod, Walleden, Todmorden (2); W. Barker, Grexholme, Todmorden.

SPANISH—Chickens.—1 and 2, H. Wilkinson, Skipton.

COCHIN-CHINA—Chickens.—1 and 2, C. Sidgwick, Keighley. *c*, J. Crabtree, Tongue.

BRAMA—Chickens.—1 and 2, T. T. Ansdel. *the*, J. Walker, Rochdale. *he*, J. Loe, Bromley, Clonmore.

DORRINGS—Chickens.—1, J. Walker. 2, T. W. Winstanley, Hollinwood.

HAMBURG—Golden-spangled—Chickens.—1, J. Andrews, Waterhouses, Ashton. 2, J. Long. *he*, W. Simpson. *Silver-spangled—Chickens.*—1, J. Lancashire, Middleton. 2, S. Lancashire, Middleton. *the*, J. Long.

HAMBURG—Golden-pencilled—Chickens.—1, W. Clayton, Keighley. 2, J. Long. *he*, J. Chadwick, Higher Shore, Littleborough. *Silver-pencilled—Chickens.*—1, J. Long. 2, H. Smith, Keighley. *he*, S. Newton, Chadderton.

LANGSHIRE—Black—Chickens.—1, S. Lancashire. 2, M. Lancashire; J. Long. *the*, C. Sidgwick. *he*, H. Hoyle, Littleborough. *Newcastle—Chickens.*—1, J. Long. 2, H. Hoyle, Littleborough; J. Chadwick.

ANY OTHER VARIETY—Chickens.—1, N. Shore, Littleborough; J. Chadwick. **GAME BANTAMS—Chickens.**—1, R. J. Hartley, Altrincham. 2, W. Baskivell, Halliwell. *he*, R. J. Hartley; W. Baskivell.

SELLING CLASS—Chickens.—1, R. H. Ashton, Mottram, Manchester. 2, J. Ashton, Craggate, Hollinwood.

CHICKENS.—1 and 2, K. Dawson, Cowlshaw, Shaw. *he*, H. Hoyle, Newchurch. *Ducks.*—1, S. E. Kettlewell, Ashton. 2, R. White, Manchester. *he*, T. Wakefield, Golborn, Newton-Willows. *he*, R. Hutchinson, Shaw Moss, Littleborough (2).

ROUENS.—1, J. Walker. 2, T. Wakefield. *the*, S. Dronsfield, Werneth. *he*, J. Walker; W. H. Rothwell, Milnrow.

GEES.—1 and 2, J. Walker. *he*, S. Dronsfield, Werneth. *c*, N. Harrison, Middleton.

TURKEYS.—1, J. Walker. 2, J. & J. Jagger, Oldham.

PIGEONS.

TUMBLERS.—1, W. A. Hyde, Hurst, Ashton. 2, W. J. Warburton, Knowles, Stalybridge. *he*, J. Stanley, Blackburn.

CARRIERS.—1 and 2, J. Stanley. *he*, S. Dronsfield, Werneth.

DUCKS.—1, S. E. Kettlewell, Ashton. 2, R. White, Manchester. *he*, A. Hunter, Middleton. 1, W. J. Warburton, W. A. Hyde; R. White.

DRAGONS.—1, J. Stanley, Blackburn. 2, R. White, S. Dronsfield (2).

BELGIANS—Long-faced.—1 and 2, C. Hopwood, Rochdale. *he*, T. Grunby, Tongue. *Short-faced.*—1, C. Sutcliffe, Todmorden. 2, J. Stanley. *he*, C. Sutcliffe. *W. White* (2).

ANY VARIETY.—1, G. M. Gurtiside, Broughton. 2, S. Dronsfield. *he*, W. Richardson (2); W. A. Hyde.

RABBITS.—*Spanish—Buck or Doe.*—1, E. Higham, Middleton. 2, B. Consterline, Rochdale. *Any variety.*—1, J. S. Johnson, Oldham. 2, H. Scholes, Oldham.

Mr. James Dixon, Bradford, and Mr. Peter Eden, Manchester, officiated as Judges.

DENBIGHSHIRE AND FLINTSHIRE POULTRY SHOW.

This, in connection with the annual agricultural exhibition of the Society, was held on the 22nd of September at Ruthin. The Turkeys formed the finest class in the Show.

DORRINGS.—1, Col. T. N. Leyland, Ruthin. 2, T. Roddick, Penhebbwchaf, Nannerreh.

GAME.—1, A. Rickman, Ruthin. 2, C. Miller, Gwysaney, Mold.

SPANISH.—1, C. Miller. 2, J. Watson, Penbedw, Mold.

ANY OTHER BREED.—1, R. Taylor, Plas Captain, Denbigh. 2, Col. T. N. Leyland. *he*, G. T. Pelham, Wern, Abergel; A. Rickman.

TURKEYS.—1, J. Griffiths, Wrexham. 2, W. Smith, Plas Towerbridge.

DUCKS.—Aylesbury.—1, J. Watson. 2, J. F. Jesse, Caeflon, Ruthin. *he*, J. Griffiths; L. Roberts, Ruthin. *Any other breed.*—1, Col. B. G. D. Cooke, Colwynby. 2, C. Miller. *he*, C. Miller; C. T. Pelham; R. Bizard. *c*, R. Blexard.

GEES.—1, R. Taylor. 2, W. Humphreys, Denbigh. *he*, T. Roddick; J. Roberts, Bacheirig, Ruthin.

The Judges were Mr. James Dixon, Cheater, and Mr. W. Gamon, Brook House, Chester.

CRYSTAL PALACE CAT SHOW.

This opened on Saturday last, and was continued on the following Monday and Tuesday. The entries numbered more than 350 Cats and kittens, all of which were good specimens, and it would appear that the public are becoming educated in Cat Shows, for all specimens but two sent in were in accordance with the descriptions in the schedule, while formerly it was the exception to have them put in their proper classes. The Show was held in the north nave of the Palace, a double row of cages

extending down the centre of the nave, and a row on either side, backed up with green baize. Statuary and flowers were interspersed, which added to the general effect. The sales of Cats were very brisk in comparison with all previous shows. One Cat was sold for £10 lbs., and another for £5 5s. All the animals were well cared for; they had plenty of fresh milk twice a day besides boiled meat.

SHORT-HAIRD TORTOISESHELL-AND-WHITE (1 entry).—*Male*.—1, J. Hurry.

SHORT-HAIRD BROWN TABBY (11 entries).—*Male*.—1, Mrs. Spinks. 2 and 3, Mrs. E. Edwood.

SHORT-HAIRD BLUE OR SILVER TABBY (5 entries).—*Male*.—1, F. W. Reynolds.

2, E. Davy. 3, G. Ellis.

SHORT-HAIRD RED TABBY (3 entries).—*Male*.—1, T. Stratton. 2, Mrs. J. Rowley. 3, Withheld.

SHORT-HAIRD RED TABBY-AND-WHITE (4 entries).—*Male*.—1, T. Newmarch.

2, W. Birch. 3, Miss C. Moore.

SHORT-HAIRD SPOTTED TABBY (13 entries).—*Male*.—1, T. Weightman. 2, Mrs. Newton. 3, Mrs. C. Smith. *he*, F. Tyler.

SHORT-HAIRD BLACK-AND-WHITE (11 entries).—*Male*.—1, R. Penwill. 2, J. Bradden. 3, Miss Ferguson.

SHORT-HAIRD BLACK (5 entries).—*Male*.—1, J. Harpin. 2, Miss Terry. 3, Mrs. Shuckard.

SHORT-HAIRD WHITE (8 entries).—*Male*.—1, Mrs. Luckin. 2, Mrs. G. Kittlety.

3, W. Halley. *he*, Mrs. J. Humphrey.

SHORT-HAIRD UNUSUAL COLOUR (1 entry).—*Male*.—1, Mrs. S. Barnes.

ANY OTHER VARIETY OF COLOUR OR SINGULAR FORM OF SPECIES, MANX, &c. (5 entries).—1, P. Williams. 2, M. White.

SHORT-HAIRD TORTOISESHELL (7 entries).—*Female*.—1, J. T. Alcock. 2, E. Horner. 3, W. Clarke. *c*, J. Penwill; Miss B. Billett.

SHORT-HAIRD TORTOISESHELL-AND-WHITE (11 entries).—*Female*.—1, H. H. Wood. 2 and 3, H. Stroffon. *he*, J. Bathurst; Master A. W. Boatright; Mrs. Penwill. *c*, Miss B. Billett.

SHORT-HAIRD BROWN TABBY (7 entries).—*Female*.—1, A. Heller. 2, Withheld. 3, Mrs. J. Edwards. *he*, Mrs. Scott.

SHORT-HAIRD BLUE OR SILVER TABBY (3 entries).—*Female*.—1, M. White. 2 and 3, Withheld.

SHORT-HAIRD RED TABBY-AND-WHITE (2 entries).—*Female*.—1, T. Sayer. 2, W. Birch.

SHORT-HAIRD SPOTTED TABBY (4 entries).—*Female*.—1, Miss M. Moore. 2, Mrs. Newton. 3, Mrs. R. Martin.

SHORT-HAIRD BLACK-AND-WHITE (5 entries).—*Female*.—1, J. Harpin. 2, H. Ranson. 3, J. Gesssey.

SHORT-HAIRD BLACK (4 entries).—*Female*.—1, T. Weightman. 2, Miss Merchant. 3, Mrs. Shuckard. *he*, E. Perry.

SHORT-HAIRD WHITE (6 entries).—*Female*.—1, Miss Shears. 2, Miss M. A. Willman. 3, E. R. Caddon.

SHORT-HAIRD UNUSUAL COLOURS (8 entries).—*Female*.—1, Walter. 2, W. K. *he*, 3, W. Wooker. *he*, Miss A. A. Barrett.

ANY OTHER VARIETY OR ABNORMAL FORMATION (5 entries).—1, E. Palmer (Manx). 2, M. White (Manx). 3, R. Williams (Manx). *he*, Miss Sprague.

FOR THE TWO BEST MARKED KITTENS, ANY VARIETY, UNDER SIX MONTHS OLD (20 entries).—1, W. Sully. Equal 2, Misses Wragge; Miss Le Neve Foster. 3, Miss A. A. Barrett. *he*, Misses E. A. & F. Hounde; Mrs. H. C. Organ; Miss Brander; Mrs. M. Willmott.

LONG-HAIRD PURE WHITE (8 entries).—*Male*.—1, Miss E. Fogerty. 2, Miss A. Gannon. 3, T. Weightman.

LONG-HAIRD TABBY (4 entries).—*Male*.—1, S. K. Shalbolt. 2 and 3, Withheld.

LONG-HAIRD UNUSUAL COLOUR (2 entries).—*Male*.—1, Miss E. S. Thompson. 2, Mrs. Lee.

LONG-HAIRD PURE WHITE (13 entries).—*Female*.—1, Miss N. Martin. 2, H. M. Maynard. 3, Miss S. A. Pocock. *he*, Mrs. O. Roedel. *c*, J. S. Pocock.

LONG-HAIRD BLACK (1 entry).—*Female*.—1, Miss M. Ambridge.

LONG-HAIRD TABBY (12 entries).—*Female*.—1, Mrs. H. C. Organ. 2, W. Appleton. 3, Mrs. Thomson. *he*, Mrs. Eavie; F. F. Edwards.

LONG-HAIRD UNUSUAL COLOUR (5 entries).—*Female*.—1, Miss J. Amor. 2, Mrs. Brander. 3, J. Penwill.

FOR THE TWO BEST LONG-HAIRD KITTENS UNDER SIX MONTHS OLD (21 entries).—1, Mrs. F. Roth. 2 and 3, Miss M. Cottingham. *the*, J. S. Pocock. *he*, Mrs. H. C. Organ; Miss E. Ackland; R. Penwill.

FOR THE BEST ANGORA OR PERSIAN IN THE SHOW (2 entries).—*Male* or *Female*.—Medal, J. Brotherton.

CATS OF NO SEX, JUDGED BY WEIGHT ONLY.

HAVIEST SHORT-HAIRD—BLACK, BLACK-AND-WHITE (7 entries).—Equal 1, Mrs. W. Loree (13 lbs.); D. Taylor (13 lbs.). 2, P. J. Harrison (12 lbs.). 3, Mrs. E. Bain (12 lbs.).

HAVIEST SHORT-HAIRD—WHITE (4 entries).—Equal 1, Mrs. T. W. Minton (12 lbs.); C. W. Fletcher (12 lbs.). 2, Mrs. J. Isherwood (12 lbs.). 3, Withheld.

HAVIEST SHORT-HAIRD TABBY, ANY COLOUR (7 entries).—1, C. F. Smith (15 lb. 12 oz.). 2, W. Crole (15 lbs.). 3, Mrs. H. C. Organ (15 lbs.).

HAVIEST SHORT-HAIRD—UNUSUAL COLOUR (3 entries).—1, Mrs. Seaman (14 lbs.). 2, Mrs. Gunner (14 lbs.). 3, Withheld.

HAVIEST LONG-HAIRD—BLACK, BLACK-AND-WHITE (2 entries).—1, Mrs. Halsey (11 lbs.). 2, T. Weightman (10 lbs.).

HAVIEST LONG-HAIRD—WHITE (5 entries).—1, F. J. Goodall (12 lbs.). 2, G. Thompson (10 lbs.). 3, Mrs. F. Hodgson (9 lbs.).

HAVIEST LONG-HAIRD—TABBY, ANY COLOUR (4 entries).—1, Mrs. D. Hooper (9 lbs.). 2 and 3, Withheld.

HAVIEST LONG-HAIRD—UNUSUAL COLOUR (4 entries).—1, A. Mordredien (11 lbs.). 2, G. F. Cremer (10 lbs.). 3, H. Kuhlmann (9 lbs.).

ANY WILD OR HYBRID BETWEEN WILD AND DOMESTIC, OR OTHER (1 entry).—Withheld.

CATS BELONGING TO WORKING MEN.

BLACK-AND-WHITE (4 entries).—*Male*.—Prize, C. Vase. *c*, E. Mather.

TABBY-AND-WHITE (7 entries).—Prize, J. Smith. *he*, Mrs. T. Odle; W. Scrivener.

WHITE (4 entries).—Prize, J. W. Gesssey. *he*, Mrs. R. Day.

SHORT-HAIRD BLACK (7 entries).—Prize, W. Broderick. *he*, M. Odle; Mrs. Scott. *c*, E. Filler. *c*, Mrs. Gray.

LITTER OF SHORT-HAIRD KITTENS—ANY COLOUR (6 entries).—Prize, —Scalling. *he*, Mrs. J. Rowley; W. Hendle.

CATS OF NO SEX, BELONGING TO WORKING MEN, JUDGED BY WEIGHT ONLY.

HAVIEST SHORT-HAIRD—TABBY, ANY COLOUR (4 entries).—1, —Bryant (12 lbs.). 2 and 3, Withheld.

HAVIEST LONG-HAIRD—ANY COLOUR (2 entries).—1, J. Curtis (9 lbs.). 2, Mrs. Glendinning (9 lbs.).

JUDGES.—Mr. Harrison Weir, F.R.H.S.; Mr. J. Jenner Weir, F.L.S.; Mr. P. H. Jones.

BEE GOSSIP.

This year will not have proved an uninteresting or unimportant one in the annals of bee-keeping. There have been some discoveries made, as in the very curious account recently

given in these pages by unimpeachable eye-witnesses to the fact that bees will occasionally tolerate two queens in one hive, or what is perhaps equally strange, that two queens will live peaceably together, sharing the duties of royalty and maternity. It is only another instance of the old saying, that "there is no rule without an exception," albeit it is equally true that "the exception proves the rule." Once only in my experience have I met with a reported instance of a like kind, but it was hardly so well authenticated.

But it is chiefly in the science of bee-keeping as a profitable enterprise, and the attention which has been drawn to it publicly, that the year 1874 will be a notable one among bee-keepers. The establishment of a British Apian Society is a great fact, and it is to be hoped that no petty jealousies will stand in the way of its receiving the adhesion and support of all lovers of the "busy bee." It has always struck me as unaccountable that England should have been so behindhand in this respect, when our American and German brothers and cousins have for so long set us a good example. Pray do not let us pass by the present opportunity of retrieving our character for enterprise, but join the new confraternity with heart and purse. It is something to find the *Times* give space for column after column in consecutive numbers to a report of the Bee Show at the Crystal Palace; and now we have friendly reports coming in, as from "D., of Deal, whose tastes are various and extensive, ranging widely in the domain of art-assisted Nature.

Looking over the entries relating to hive-improvements, I am somewhat surprised to find none in the direction of self-adjusting hives, such as would give increase of space in an upward direction by means of a sliding case. Hives of this sort would be invaluable to those bee-keepers whose one object is honey, to the discouragement of swarming. They might be called "telescope" hives. I think I recollect some such hive being once described in this Journal, but it seems to have hardly obtained the attention it deserved—the principle of it I mean. Perhaps some of your readers have made trial of a hive of this sort, and would favour us with an account of it.—B. & W.

BEE-KEEPER'S CALENDAR FOR OCTOBER, NOVEMBER, AND DECEMBER.

UNDER proper management bees require no attention from September till March. Every hive should be examined after brood is all hatched to ascertain if there is any foul brood in it, and also to see if it has bees and honey enough to go well through the winter. Where feeding last month has not been attended to, it should be done as soon as possible. I have so often pointed out the danger of winter feeding that it need not be dwelt upon here. In cold weather bees can neither impart warmth nor food to their young; it is, therefore, desirable to avoid stimulating them unseasonably. By feeding them in October, especially if the weather be warm, it is easy to get a late hatch of brood. I frequently tried late feeding with a view to strengthen weak hives, but finding the loss greater than the gain have long since abandoned this practice.

The earlier autumn feeding is over the better. As soon as it is over, hives should be protected and covered well; indeed bees cannot be kept too warm in winter out of doors. Soft dry hay or grass 3 or 4 inches thick, placed compactly round every hive under the outer covering, is a good protection from the cold of winter. The earliest swarms last summer in this part of the world were those that were best covered and protected during the previous winter. Last month your readers were advised to contract the doors of their hives to keep out mice. When snow is on the ground bees should be kept in their hives. This cannot be too strongly insisted on. If bees come out when snow is on the ground they fall into it and perish. When there is no snow they may have a winter dance as often as they like.—A. PETTIGREW.

OUR LETTER BOX.

PULLETS LAYING (*Capt. L.*).—It is early, but not very unusual, therefore we need not trouble you further, but are equally obliged by your offer.

OLD BRAHMA COCK (*E. J. C.*).—We will not say the five-year Brahma cock is too old, but we should decidedly prefer something younger. We would not breed from him at that age.

ARRANGEMENT FOR POULTRY-KEEPING (*E. E. D.*).—Fifty fowls should have two acres if they are to be kept profitably. The information you quote is quite new to us, and we cannot think it is correct. Small chickens should be fed at first on boiled egg, bread and milk, cooked meat, curd, and meal. The next two months the chicken will eat more, but its food need not be so costly. It will, however, far exceed three farthings per week. The penny per week for an adult is marvellous, and on this small outlay she is to lay from 220 to 234 eggs; and these are to be sold at 1s. 3d. per dozen, making £14s. 6d. per annum. Cost according to Beaton's penny "Poultry Book," 4s. 6d. Profit for each hen, £1. As chickens are to cost one halfpenny per week for two months, then three farthings per week for two months, and one penny per week for the rest of life, this will, we think, be found a correct calculation. We wish the items of food had been given, with the addresses of those who sold them. We recollect when homo-opathically first came to the surface, it was defined as "a system by which the smallest possible dose was equal in its effects to the

largest." One of the early humorous prints said that a guardian of the poor, a thoroughly scientific man, applied the system to the dietary of the inmates of the workhouse. He gave six drops of gruel to a pailful of water. The inmates increased in weight. To gratify one of those philanthropic guardians who are always spoiling the poor, he added to each pailful six drops of rum. They made the inmates so quarrelsome, they were forbidden in future. Some such system must have been invented or discovered for chickens.

HOW TO BRAND HOUSING PIGEONS (*J. K. C.*).—The best way is to stamp with printer's ink on the flight feathers of the wing. Get a "die" made with your initials on it, and the number of the Pigeon, or, indeed, any mark on it according to your fancy. With a very simple arrangement of an inked flannel pad with which to ink the die, you can hand-stamp the wing. A dissembler would be the man to make the instrument you need.

BELGIAN HAIRE RABBIT—LOP-EAR SLIGHTLY WOUNDED (*Ignorance*).—A thoroughbred first-class Belgian Haire Rabbit should weigh from 7 lbs. to 8½ lbs. They sometimes reach 9 lbs. They should as nearly as possible approximate to the Haire in colour, shape, and habit. No visible white. Above all, no lop to the ears. They should be bright hare colour between the shoulders and towards the poll. They should sit as a Haire does in her form. They should carry their ears like a Haire, both upward and drooping. The small piece lost from the ear of the double-lop should not prevent you from showing it. In all adjudication, that which is perfect must take precedence of that which is defective, though the defect be the result of accident. There is too great a tendency in the present day to seek for dishonesty in exhibitions, and to tack on disqualified tickets. It is a pity, and it is often unjust. Where a feather is wanting in plumage which may be only of one colour there is room for suspicion, and the bird should be passed over; but where it is as likely to be from accident as design, and where there is apparently nothing to gain by it, it should be very leniently treated.

LOGHMAN BEES (*M. M.*).—Your safest course will be to write to the dealers in hives, &c., who advertise in our columns.

FEEDING BEES (*E. M. M.*).—Perhaps your simplest plan for feeding your bees is the bottle-feeder, as used and recommended by the late Mr. Woodbury. You can get it from Neighbour & Sons, High St. Born. Feed with a syrup made by pouring a quart of boiling water on 6 lbs. of good moist sugar. If too liquid add a little more sugar, if too thick a little more water. Stir well till the sugar is thoroughly dissolved. This is the food we are now using ourselves. Bees will feed from the bottle well in warm weather. The sooner you feed the better. Cover the mouth of the bottle with a bit of coarse lene. (*M. N. Carr*).—If you wish to preserve your bees in the empty hive, you must feed continuously for a month, giving them as much as they like to consume. They will require about 40 lbs. or 50 lbs. of sugar made up into syrup. Remember they have comb to make as well as to store the food. Unless you do the work thoroughly you will but spend money in vain.

REFUSE IN DESERTED HIVE (*G. H.*).—The piece of comb you sent from a deserted hive is loaded with bee-bread or pollen, but is in a sweet and natural condition. In this country bees gather far too much pollen, which occupies cells in the centres of hives that would be better employed for breeding purposes. The hive has, we think, lost its queen, and the bees have either deserted it or, more likely, dwindled gradually away. The deposit on the board is simply bee-bread which has fallen from the cells while robber bees were extracting honey from them.

METEOROLOGICAL OBSERVATIONS,

CAMDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W.; Altitude 111 feet.

DATE.	9 A.M.				IN THE DAY.					
	Baromet.		Hygromet.		Direction of Wind.	Temp. of Soil at 1 foot.	Shade Temperature.		Radiation Temperature.	
	at 32° and Sea Level.		Dry.	Wet.			Max.	Min.	In sun.	On grass.
1874.	Inches.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	In.
Sept.										
We. 23	29.988	55.5	51.6	N.	57.3	63.4	47.6	75.8	41.1	0.118
Th. 24	30.109	57.9	56.9	S.W.	57.3	67.2	51.9	97.2	48.3	—
Fri. 25	30.250	64.0	60.7	W.	57.8	72.3	52.3	122.1	49.6	—
Sat. 26	29.515	61.1	59.9	W.	57.5	73.3	49.0	106.6	47.5	—
Sun. 27	30.018	59.0	58.4	N.	57.9	75.8	48.6	110.0	44.9	0.081
Mo. 28	29.858	61.3	59.3	S.W.	58.0	68.9	52.2	106.8	49.6	—
Tu. 29	29.720	61.2	56.7	S.	58.6	67.7	57.3	110.2	53.9	0.126
Means	30.031	60.3	58.1		57.9	70.9	51.3	104.1	48.3	0.325

REMARKS.

23rd.—Dull morning, wet forenoon, fair afternoon, and fine evening.
 24th.—Very foggy early, clearer by 9 A.M., but dull; fine afternoon and evening.
 25th.—Hazy morning, but a very bright day and night. Evening.
 26th.—Very fine warm day, very little movement in the air; hazy evening.
 27th.—A warm and rather close day, hazy and dark at times, especially about noon, but at times the sun very bright; lightning at 10 P.M., and rain at midnight.
 28th.—Fine morning and very pleasant day, being much less oppressive than the one preceding it. Lunar halo at 9 P.M.
 29th.—Fine forenoon, but dull afternoon.
 A fine warm week, the 25th unusually hot for the date; rain still very slight.—G. J. SYMONS.

COVENT GARDEN MARKET.—SEPTEMBER 30.

No change, a good supply of everything. Trade quiet.

FRUIT.

	s.	d.	s.	d.		s.	d.	s.	d.		
Apples.....	1	0	1	0	Mulberries.....	3	lb.	1	0	0	0
Apricots.....	doz.	0	0	0	Nectarines.....	doz.	3	0	6	0	
Cherries.....	1	lb.	0	0	Oranges.....	100	12	0	24	0	
Chestnuts.....	bushel	0	0	0	Peaches.....	doz.	3	0	10	0	
Currants.....	1	sieve	0	0	Pears, kitchen.....	doz.	0	0	0	0	
Black.....	do.	0	0	0	dessert.....	doz.	1	0	3	0	
Figs.....	doz.	1	0	2	Pine Apples.....	lb.	2	0	6	0	
Filberts.....	lb.	1	0	1	Plums.....	1	sieve	3	0	4	0
Cobs.....	lb.	1	0	1	Quinces.....	doz.	0	0	0	0	
Gooseberries.....	quart	0	0	0	Raspberries.....	lb.	0	0	0	0	
Grapes.....	100	8	0	16	Strawberries.....	1	lb.	0	0	0	
Lemons.....	100	8	0	16	Walnuts.....	bushel	10	0	16	0	
Melons.....	each	2	0	6	ditto.....	100	1	0	2	0	

WEEKLY CALENDAR.

Day of Month.		Day of Week.	OCTOBER 8—14, 1874.	Average Temperature near London.			Rain in 43 years.	Sun Rises	Sun Sets.	Moon Rises.	Moon Sets.	Moon's Age.	Clock after Sun.	Day of Year.					
				Day.	Night.	Mean.	Days.	m. h.	m. b.	m. h.	m. h.	Days	m. a.						
8	TH			61.7	42.0	51.8	23	14	af 6	21	af 5	47	3	0	5	28	12	26	281
9	F			60.7	42.4	51.5	24	16	6	19	5	57	4	9	5	29	12	43	282
10	S	T. A. Knight born, 1758.		61.6	43.3	52.4	24	17	6	17	5	7	6	19	5	●	12	58	283
11	SUN	19 SUNDAY AFTER TRINITY.		61.7	42.4	52.1	23	19	6	15	5	17	7	30	5	1	13	18	284
12	M			59.2	41.1	50.3	23	21	6	12	5	24	8	43	5	2	13	28	285
13	TU	Twilight ends 7.4 P.M.		60.7	41.8	51.2	23	23	6	10	5	42	9	59	5	3	13	42	286
14	W	Fire insurance must be paid.		59.9	40.5	50.2	20	24	6	8	5	55	10	23	6	4	13	56	287

From observations taken near London during forty-three years, the average day temperature of the week is 60.8°; and its night temperature 41.9°. The greatest heat was 80°, on the 14th, 1861; and the lowest cold 25°, on the 11th, 1860. The greatest fall of rain was 1.00 inch.

THE DAVIS BEQUEST.

THE new schedule for 1875 of the Royal Horticultural Society has been issued, and there is no mention of the Davis bequest. Many people ask, What is to be done with it? It is already well known that an attempt was made to apply it for the encouragement of what we have heard called "A Horticultural Derby," but the experiment was attended with difficulties, and the competitors who entered for the prizes were so few as to reduce the interest in the competition, and to render the attempt a complete failure. We are not aware that anything has yet been done in the way of devising a scheme which would meet the object Mr. Davis had in view, or what the intentions of the Council may be in regard to it; but we think that something which would be worthy of the reputation of so old and honourable a Society as the Royal Horticultural ought to be forthcoming.

In the absence of any better proposal we offer one which appears to us to be worthy of the attention of the Society, and one also which would do honour to it while it was honouring others. It is to institute MEDALS FOR MERIT. All the leading societies possess this power of rewarding, or at least of recognising, merit. The Royal has its gold medal, the Society of Arts its Albert medal, the Institute of British Architects and that of the Civil Engineers their medals, and there are the medals of the Royal Academy—all rewards for merit, which are eagerly sought after—why should not the Royal Horticultural Society have its medals for merit? Horticulture has its distinguished men and its eager votaries; but with the exception of the prizes which are won at horticultural shows, there is no other recognition of horticultural merit; and these prizes are confined exclusively to rewards for culture. The scientific horticulturist, the traveller who goes out with his life in his hand to pursue untrodden paths, and to grope his way through tropical forests and malarious swamps among barbarous peoples, what is his reward? What order of merit have we for him? Or the painful hybridist, who in his quiet undemonstrative way plods along, and astonishes us now and again with some wonderful feat of creation which puts much money into the pockets of culturists and exhibitors, but too often very little in his own—what order of merit is conferred on him? And the skilful cultivators, who whether they are exhibitors and win prizes, or whether they are not, they, too, ought to be thought of. There are many of our very best gardeners who are not exhibitors, and who are, therefore, never recognised. Then there are the writers on horticulture who are fairly entitled to have their merits rewarded. Horticulture is much indebted to its writers, and we feel sure that horticulturists will not be slow to reward merit in literature where it is deserved.

Now, from what source could such honours flow more appropriately than from the Royal Horticultural Society? It has no medals of the kind to confer as medals for merit, and never has had. The Davis fund affords an

opportunity now for its doing so, and we can see no better or more creditable way of applying it than by creating such medals as we have indicated.

Let us, by way of illustration, indicate what we mean. Who would say David Douglas or Hartweg, or the Cunninghams, or Mr. Skinner, were not entitled to this medal for merit had they been alive? and yet we have among us Mr. Fortune who has contributed to our gardens as many trees and shrubs and lovely flowers as any of these have done—popular flowers, flowers to be met with in every cottage garden and cottage window, on market stalls and hucksters' barrows—surely he might have a medal of merit? Then there are the great hybridists, men like Mr. Dominy, Colonel Trevor Clarke, Mr. Rivers, Mr. Laxton, Dr. Denny, Mr. Sedden, and others—men who by mental ingenuity if not by physical exertion, like the travellers, have enriched our collections and added to our pleasures, with too often the travellers' scant reward. And the cultivators, are there not names which flash across the memory suggesting men worthy of such honour? The Thomsons, Mr. Hunter, Mr. Fowler, Mr. Speed, and others are but types of the class. And lastly, there are the literary workers, of whom there are now and then some who might be thus distinguished. Such a man was Mr. Loudon; and who would have denied to Donald Beaton and Robert Fish such an honour had they been alive? There are men among us still plying their brains in the interests of horticulture who have no other opportunity of a reward for merit except such a one as we have indicated; and among these there are the scientific horticulturists, they who apply science to practice, and combining the two render valuable services to horticulture. Such men are the Rev. M. J. Berkeley, Mr. J. G. Baker, and others.

We throw out this as a hint to the Council of the Royal Horticultural Society whom we know have the best interests of horticulture at heart, and we hope it may find such favour as to stimulate them to take some step towards promoting so laudable an object.

A PEEP INTO FROGMORE.

It is common to associate with royalty grandeur and magnificence. One is apt to fancy the royal scullery, royal kitchen, royal farm, and royal garden as superseding all and everything of the same nature to be found in the island over which our gracious Queen reigns so benignly and so well. We think that every latest improvement, every modern appliance, everything which money can buy and the heart wish for, is provided *ad lib.* for the convenience of the royal servants in all the respective departments. Mayhap it is so. But in glancing over the place—the garden at any rate—an idea takes hold of the mind and clings there, that the same principles which govern most places govern this—viz., that the means are not more than sufficient for the requirements. Utility might be written on every house, and plant, and man at Frogmore, for every house was full, every plant had a purpose, and every man was at work.

It was in April I had my peep. The majestic castle was closed, but the not less majestic Elm avenue was opening the fresh green foliage, and just adding another glow of life to the centuries of the past. The fruit trees were a mass of floriferous wreaths, bright with hope of a rich harvest of fruit. It may, however, have been, as it was in too many places, but the winding-sheet, emblematic of the death, almost before it had life, of the longed-for, the coveted, the useful fruit. But some trees were covered—that is, on walls, and they were covered, not merely veiled with a slender network of hemp, which is not to be depended on for keeping-out the frost, but with a closely-woven material affixed on rollers to draw-up and down as required. That is sensible covering, and in the end the most economical, judging it by the value of the crops produced. There are few things in gardening so half-done as fruit-tree covering. Better by far not cover at all than do it on the spider's-web principle, and disappointment will be the less. That is one specimen of the practical utility of Frogmore.

They were cutting Asparagus, forced of course. But it is not everywhere, not, indeed, in many places forced as for the royal table. The beds are covered-in with stont wood shutters—there may have been glass attached, I forget, it was only a rush through, as if the Guards were after us—but there appeared to be pipes running along the covered paths between bed and bed, and a boiler at the end to feed them. Simple and effectual again, and well worth the doing. But all over the beds were sticks stuck about. What for? Simply to tell where the blanks were, so that fresh roots could be put just where wanted at the right time for planting. A capital plan that. I know a garden where it is regularly adopted, and the beds are as fresh, and full, and good as they were forty years ago.

But a man is found to run us through the houses, they seemed so busy as hardly to be able to find one. He was very civil and obliging. Forcing of fruits and vegetables was, of course, in full swing. Dwarf Kidney Beans in enormous quantities were here, there, and everywhere. Shelves and stages were not only filled with pots, but borders were planted with them, and all bearing excellent crops. "What are the sorts you find the best? Some of the new ones must be splendid forciers," was innocently suggested. Mark the reply: "They may be good, but we find nothing so useful as the old Mohawk, and grow no other in quantity." And what is the quantity? The reply must be given by time instead of numbers. "We gather Dwarf Kidney Beans," said our guide, "nine months indoors and three months out." Dwarf Kidney-Bean forcing at Frogmore is evidently a gigantic work, well done, and the testimony to the old variety above named is no ordinary one. Moreover, it is as good outdoors as it is in, and for light soils especially it is a question if it has any superior, taking into account quality and productiveness.

Strawberry-forcing is another great work at Frogmore. Strawberries are grown by the thousand in large 48 and small 32-sized pots, the kinds used being Vicomtesse Hériart de Thury, Le Gros Sucré, Keens' Seedling, President, and Dr. Hogg. The second one named was very highly spoken of as a great-bearing excellent variety for forcing, and in truth it was then fine, but so also were the others. They were grown on shelves in different houses, yet one house was devoted entirely to this fruit. It was a span-roof with a high flat centre stage near the glass, and a table round the sides. The pots were plunged in leaves, and as the fruit was all neatly tied-up and supported above the foliage it was a fine sight. The man in charge was evidently proud of it, and well he might be, for it did him credit. The plants are not stacked to get root-dried in winter, but are simply protected by fern, and a portion, no doubt, in the fruit houses. So long as the drainage is right Strawberries will stand any amount of moisture at any season, as note the extraordinary crops of 1873 after the extraordinary downpour of rain of the preceding winter.

The Peach and Plum houses were carrying good crops, but we will glance at the Vines. No great attempts at gigantic bunches to startle the world and make we small fry stare, are evidenced in the vineries at Frogmore. The roof is made to carry as many rods as possible consistent with securing a great number of useful medium-sized bunches, and berries of good quality. In a word, everyday usefulness rather than show, excellence rather than size, would appear to be the ruling principle of Frogmore Grape-growing. The crops were heavy, and the inside borders were being fed with liquid manure. The foliage was disposed on what I always lay down as the right and safe guide, of light for every leaf, and always a leaf for light. If

those little words were always remembered it would, perhaps, be no worse for Grapes generally. Pot Vines, when I saw them, were on the point of ripening their fruit, and were heavily laden. They were trained-up the rafters, and if I remember rightly, the pots were plunged. Some of the canes had been purchased and some were home-grown, but all were good, the bought ones, perhaps, the best.

Let us look a moment at the Pines. It was only a walk down the pits and peep-in now and then. They are grown in deep pits filled with leaves to give the necessary bottom heat, for which there is no grand mechanical provision. But there are grand Pines. As seen in April they were simply in splendid order, and self and friend mutually agreed on the resolution that they would make somebody look-out before the season was over. They did so, and those staged at "the Palace" in September were right royal specimens. Than Pines nothing is better done at Frogmore, and if we do not envy, we may at least seek to emulate the skill of the able grower of them. The front walls of the pits are, perhaps, 4 feet high. Close to them was run a row of early Peas, to be followed by Tomatoes. Thus no space is lost, but every spot and site turned to useful account. To the plants. Well, plants here are grown to be spoiled. That is just it. They have to do duty in corridor and vestibule of the Castle, and the dry atmosphere, and draughts, and gas tell the old tale; yet clearly the best attention is given to cleanliness and cultural restoratives.

On the whole, Frogmore is managed excellently well, and worth a visit. But how did I get in? Patronage of course. A friend of mind was taking a pig to the royal farm—he is a royal pig now, and it was under the patronage of this animal, sharing the conveyance, that I got my peep into Frogmore, and was gratified. We cannot suppose that such influence is generally necessary to gain admittance, but it so happened, and I got a rush round without any fuss and was satisfied. I wrote my name in the visitors' book as I write it now.—J. WRIGHT.

NOVELTIES IN THE ROYAL GARDENS, KEW.

The Cape house is perfumed with the delicious odour of *Aponogeton distachyon*. It is flourishing in a large bell-glass of water, on which the leaves float, intermingling with the curious two-forked inflorescences. The pure white glistening bracts which subtend the flowers are the inevitable source of attraction. In contrast with these are the black anthers and dark green foliage. Its culture in this way is very simple. Select a bell-glass or other convenient vessel about 16 inches wide at the mouth, and about 22 deep. Place soil therein to a depth of 4 or 5 inches, and plant the roots just beneath the surface, three of which will be quite sufficient. Dung or other enriching material should be carefully avoided, as it merely serves to contaminate the water without conferring an equivalent benefit to the plant. Carefully pour in water so as not to disturb the soil; every week at least a portion should be drawn off and be replaced with fresh. It is convenient to do this by means of a siphon formed by bending a piece of small lead pipe or other tubing. The interest of this "thing of beauty" may be greatly enhanced by the addition of animal curiosities, and to those who possess aquariums containing such, this plant is to be earnestly recommended. To flower from the present onwards, plant about the end of August. There is yet time enough to have it in flower for the winter season. It is a native of the Cape of Good Hope.

Vitellia Canterburyana is one of the finest of all Palms. In the Palm house a well-developed specimen has long been grown as "*Areca* sp., from Lord Howe's Island," and has been recently proved the above. It is about 30 feet high, and is almost without doubt the finest in Europe. Those who are fortunate enough to obtain the seeds must not be surprised if they fail to grow. Seeds of the genus *Kentia* (of which this is a member), almost always reach this country dead. They should be sown in pots and plunged in a bottom heat of 85°. When the young plants are spreading their first leaf, pot in as small pots as will contain the roots without breaking, using a soil of equal parts peat and loam. Pure loam may be used when the plants are large, but for their infantile condition a lighter mixture is preferable. Small pots should always be used, as a quick growth is thereby favoured and less room required. It is of little moment if they become pot-bound; on receiving a shift young roots proceed from the stem, which supersede the old ones. When the plants are growing water

should be freely given at the roots, with plenty of syringing overhead. It does well in an intermediate house.

Cuphea silenoides is a very pretty annual with blood-purple-coloured flowers. It has been in flower several months in the herbaceous ground, and is still flowering freely. The plant is covered with clammy hairs. It is easily cultivated, as are, in fact, nearly all hardy annuals, a circumstance very greatly in their favour. Such being the case, and as many good things are amongst them, it is a mistake that they are not more grown than at present. An important point and one often neglected, is that sufficient room must be given for the development of each individual plant. It is an excellent plan to sow in a circular drill with an inside cross, the circle formed by pressing the rim of a large pot on the ground. In this way the patch can be more easily weeded and thinned than when sown broadcast.

Parrotia persica, a member of the Hamamelidæ, is one of the rarest of trees. Its leaves are now assuming their autumn colours, which render it very attractive during that season; they turn orange, yellow, and scarlet. Though quite hardy it is very suitable as a deciduous tree for planting against a wall. Indeed, in this position only does its beauty become well developed. It does exceedingly well with an eastern aspect. The best mode of propagation is to layer the lower branches; they root easily, and soon make symmetrical trees.

ELECTION OF ROSES.—No. 3.

In giving the lists of the nurserymen's votes, I may just mention that some persons appear to have considered that the Roses are placed by the electors in order of merit. In no single list is this the case. In the election of 1872 Mr. R. W. Beachey did place his in what he considered "order of merit;" he also wrote a very interesting article on the method of this voting, which appeared in "our Journal" about the same time as the election, but even his list is not thus given this year. The numbers are placed against them to insure the proper number of Roses being named, and they follow each other very often as they come in the catalogues. This accounts for the fact that Alfred Colomb is so often No. 1. Well, he is certainly A1, and therefore, perhaps, is somewhat entitled to head the list. There is one other way in which we may look at the election, and that is the position of the Roses as to quality—that is, as to being in the first twenty. This the following table shows, and if the two lists are compared it will be found that there is some difference—in some cases very marked—as to the position in order of merit.

VOTES.		VOTES.	
1, 2.	Maréchal Niel 38	20, 21.	Dr. Andry 12
3.	Alfred Colomb 38	22, 23.	Souvenir d'un Ami 12
3.	Charles Lefebvre 37		Ferdinand de Lesseps 11
4.	Madame Rothschild 35		Emilie Hansburg 11
5.	Marie Baumann 34	24, 25.	Camille Bernardin 10
6.	La France 34		Marguerite de St. Amand 10
7.	Comtesse d'Oxford 32	26, 27.	Eduard Morren 9
8.	Etienne Levet 31		Marie Rady 9
9.	Louis Van Houtte 31	28	Catherine Mernet 8
10.	Marquise de Castellane 26	to	Souvenir d'Elise 8
11, 12.	Madame Victor Verrier 24	30.	Horace Vernet 8
	Gloire de Dijon 21	31.	Niphotos 6
13, 14.	John Hopper 20		Xavier Olibo 4
	Duke of Edinburgh 20	32	Camille de Roban 4
15, 16.	Pierre Notting 18	to	Dupuy-Jamain 4
	François Michelon 18	to	Madame Lacharme 4
17, 18.	Mdlle. Eugénie Verdier 17	38.	Boule de Neige 4
	Deviensiens 17		Exposition de Brie 4
19.	Senateur Vaisse 13		Abel Grand 4

Those in italics seem to have altered their position the most. Gloire de Dijon, Marquise de Castellane, Emilie Hansburg, Edward Morren, Horace Vernet, Niphotos, Boule de Neige, and Madame Lacharme for the better; whilst Dupuy-Jamain, Marie Rady, and Xavier Olibo retrograde.

Mr. CHARLES BURLEY, *Paradise Nursery, Brentwood*.—1, Fisher Holmes; 2, Comtesse d'Oxford; 3, Camille Bernardin; 4, Alfred Colomb; 5, Madame Clémence Joigneux; 6, Senateur Vaisse; 7, Marie Baumann; 8, François Michelon; 9, Marguerite de St. Amand; 10, La France; 11, Miss Ingram; 12, Madame Rothschild; 13, Boule de Neige; 14, Souvenir de Malmaison; 15, Madame Willermoz; 16, Maréchal Niel; 17, Gloire de Dijon; 18, Madame Margottin; 19, Cécile Forestier; 20, John Hopper; 21, Duchesse de Morny; 22, Duchesse de Edinburgh; 23, François Fontaine; 24, Duke of Edinburgh; 25, Maurice Bernardin; 26, Charles Lefebvre; 27, Baron Haussmann; 28, Maréchal Vaillant; 29, Marie Rady; 30, Reynolds Hole; 31, Camille de Roban; 32, Annie Wood; 33, Monsieur Bonneau; 34, General Jacqueminot; 35, Baron A. de Rothschild; 36, Beauty of Waltham; 37, Madame Victor Verrier; 38, Madame C. Craplet; 39, Madame Hippolyte Jamain, &c.; 40, Niphotos; 41, Princess Mary of Cambridge; 42, Caroline de Sausal; 43, Deviensiens; 44, Belle Lyonnaise; 45, Triomphe de Reunes; 46, Abel Grand; 47, Victor Verrier; 48, Capt. Christy; 49, Lyonnais; 50, Mdlle. Eugénie Verdier.

Mr. C. TURNER, *Royal Nurseries, Slough*.—1, Alfred Colomb; 2, Catherine

Mermet; 3, Charles Lefebvre; 4, Comtesse d'Oxford; 5, Exposition de Brie; 6, Duke of Edinburgh; 7, Etienne Levet; 8, François Michelon; 9, Gloire de Dijon; 10, Louis Van Houtte; 11, John Hopper; 12, Madame Rothschild; 13, Marquise de Castellane; 14, Prince Camille de Rohan; 15, Maréchal Niel; 16, La France; 17, Marie Baumann; 18, Princess Beatrice; 19, Madame Victor Verrier; 20, Deviensiens; 21, Abel Grand; 22, Alba Rosea; 23, Annie Laxton; 24, Baron de Bonstetten; 25, Belle Lyonnaise; 26, Cécile Forestier; 27, Dr. Andry; 28, Edward Morren; 29, General Jacqueminot; 30, Horace Vernet; 31, Lucia; 32, Madame Caroline Kuster; 33, Madame Clémence Joigneux; 34, Madame Faleot; 35, Madame Willermoz; 36, Marie Van Houtte; 37, Mdlle. Thérèse Levot; 38, Mdlle. Eugénie Verdier; 39, Marguerite de St. Amand; 40, Marquise de Gibot; 41, Paul Neron; 42, President; 43, Perle de Lyon; 44, Reynolds Hole; 45, Senateur Vaisse; 46, Souvenir d'Elise; 47, Souvenir de Malmaison; 48, Victor Verrier; 49, Xavier Olibo; 50, Camille Bernardin.

Mr. B. R. CANT, *St. John Street Nursery, Colchester*.—1, Alfred Colomb; 2, Madame Rothschild; 3, Charles Lefebvre; 4, Dr. Andry; 5, Comtesse d'Oxford; 6, Elie Morel; 7, Etienne Levet; 8, Ferdinand de Lesseps (Exposition de Brie); 9, François Michelon; 10, Horace Vernet; 11, La France; 12, Louis Van Houtte; 13, Marguerite de St. Amand; 14, Marie Baumann; 15, Marquise de Castellane; 16, Maurice Bernardin; 17, John Hopper; 18, Deviensiens; 19, Maréchal Niel; 20, Souvenir d'Elise; 21, Abel Grand; 22, Beauty of Waltham (Madame C. Craplet); 23, Duke of Wellington; 24, Duchesse de Caylus; 25, Dupuy-Jamain; 26, Duke of Edinburgh; 27, Emilie Hansburg; 28, François Louvat; 29, Fisher Holmes; 30, General Jacqueminot; 31, Gloire de Vitry; 32, Duchesse de Morny; 33, Hippolyte Flandrin; 34, Mdlle. Marie Rady; 35, Mdlle. Eugénie Verdier; 36, Madame Charles Wood; 37, Madame Clémence Joigneux; 38, Madame Victor Verrier; 39, Madame Caroline Kuster; 40, Madame Willermoz; 41, Mons. Noman; 42, Pierre Notting; 43, Camille de Roban; 44, Senateur Vaisse; 45, Vicomte Vigier; 46, Gloire de Dijon (not for exhibition); 47, Niphotos; 48, Rubens; 49, Souvenir d'un Ami; 50, Xavier Olibo.

Mr. H. MAY, *Bodale, Yorkshire*.—1, Alfred Colomb; 2, Charles Lefebvre; 3, Maréchal Niel; 4, Madame Rothschild; 5, Madame Lacharme; 6, Madame G. Schwartz; 7, La France; 8, Etienne Levet; 9, Comtesse d'Oxford; 10, Princess Beatrice; 11, Gloire de Dijon; 12, Camille Bernardin; 13, Marquise de Castellane; 14, Exposition de Brie; 15, Camille de Roban; 16, Edward Morren; 17, Lyonnais; 18, Pierre Notting; 19, Marie Rady; 20, Souvenir d'un Ami; 21, Louis Van Houtte; 22, Centifolia Rosea; 23, Mdlle. Eugénie Verdier; 24, Mdlle. Thérèse Levot; 25, Duke of Edinburgh; 26, Marie Baumann; 27, Reynolds Hole; 28, Victor Verrier; 29, Emilie Hansburg; 30, Xavier Olibo; 31, Antonio Duche; 32, Princess Mary of Cambridge; 33, Madame Victor Verrier; 34, Madame Charles Wood; 35, Emma Conley; 36, Dupuy-Jamain; 37, Baronne de Frailly; 38, Monsieur Noman; 39, Marquise de Mortemart; 40, François Michelon; 41, Duchesse de Caylus; 42, Duchesse de Morny; 43, Abel Grand; 44, Paul Neron; 45, Deviensiens; 46, Richard Wallace; 47, Senateur Vaisse; 48, Marguerite de St. Amand; 49, Elie Morel; 50, Pierre Seletzky.

MESSRS. MITCHELL & Co., *Pittdown Nurseries, Uckfield, Sussex*.—1, Alfred Colomb; 2, Madame Rothschild; 3, Charles Lefebvre; 4, Dr. Andry; 5, Duke of Edinburgh; 6, Ferdinand de Lesseps; 7, Horace Vernet; 8, La France; 9, Louis Van Houtte; 10, Madame Victor Verrier; 11, Mdlle. Eugénie Verdier; 12, Marie Baumann; 13, Marquise de Castellane; 14, Paul Neron; 15, Pierre Notting; 16, Senateur Vaisse; 17, Xavier Olibo; 18, Madame Margottin; 19, Maréchal Niel; 20, Souvenir d'Elise; 21, Baron A. de Rothschild; 22, Baron de Bonstetten; 23, Comtesse d'Oxford; 24, Duke of Wellington; 25, Edward Morren; 26, Etienne Levot; 27, François Michelon; 28, General Jacqueminot; 29, John Hopper; 30, Jules Margottin; 31, Baronne Haussmann; 32, Baronne Maurice des Gravières; 33, Leopold Haussburg; 34, Madame Fillion; 35, Marie Rady; 36, Thérèse Levot; 37, Marguerite de St. Amand; 38, Mons. Noman; 39, Perfection de Lyon; 40, Princess Mary of Cambridge; 41, Camille de Roban; 42, Triomphe de Reunes; 43, Deviensiens; 44, Jean Pernet; 45, Josephine Malton; 46, Madame Willermoz; 47, Marie Van Houtte; 48, Souvenir d'un Ami; 49, Maréchal Vaillant; 50, Souvenir de Paul Neron.

MESSRS. DAVISON & Co., *White Cross, Hoveford*.—1, Alfred Colomb; 2, Charles Lefebvre; 3, Comtesse d'Oxford; 4, Duke of Edinburgh; 5, Edward Morren; 6, François Michelon; 7, Horace Vernet; 8, La France; 9, Louis Van Houtte; 10, Madame George Schwartz; 11, Madame Rothschild; 12, Madame Victor Verrier; 13, Etienne Levot; 14, Pierre Notting; 15, Senateur Vaisse; 16, Xavier Olibo; 17, Niphotos; 18, Deviensiens; 19, Maréchal Niel; 20, Gloire de Dijon; 21, Abel Grand; 22, Dr. Andry; 23, Camille Bernardin; 24, Emilie Hansburg; 25, Exposition de Brie; 26, Dupuy-Jamain; 27, General Jacqueminot; 28, Lyonnais; 29, Madame Fillion; 30, Claude Levot; 31, Mdlle. Eugénie Verdier; 32, Mdlle. Marie Rady; 33, Maurice Bernardin; 34, Marguerite de St. Amand; 35, John Hopper; 36, Marquise de Castellane; 37, Monsieur Noman; 38, Princess Beatrice; 39, Camille de Roban; 40, President Thiers; 41, Reynolds Hole; 42, Souvenir de J. Gould Vetch; 43, Victor Verrier; 44, Catherine Mernet; 45, Souvenir d'un Ami; 46, Souvenir d'Elise; 47, Souvenir de Paul Neron; 48, Marie Van Houtte; 49, Ferdinand de Lesseps; 50, Marie Baumann.

Mr. G. PRINCE, *The Nurseries, Oxford*.—1, Alfred Colomb; 2, Charles Lefebvre; 3, Comtesse d'Oxford; 4, Emilie Hansburg; 5, Etienne Levot; 6, François Michelon; 7, Horace Vernet; 8, Louis Van Houtte; 9, Madame George Schwartz; 10, Madame Hippolyte Jamain; 11, Madame Victor Verrier; 12, Madame Rothschild; 13, Mdlle. Marie Cointet; 14, Marie Baumann; 15, Marie Rady; 16, Mons. Noman; 17, Xavier Olibo; 18, Anna Olivier; 19, Maréchal Niel; 20, Souvenir d'Elise; 21, Annie Wood; 22, Auguste Jugotard; 23, Baron A. de Rothschild; 24, Baronne Haussmann; 25, Baron Bonstetten; 26, Camille Bernardin; 27, Clémence Raoux; 28, Devienne Lamy; 29, Dr. Andry; 30, Duke of Wellington; 31, Dupuy-Jamain; 32, Exposition de Brie; 33, Ferdinand de Lesseps; 34, Madame Lacharme; 35, Mdlle. Eugénie Verdier; 36, Maréchal Vaillant; 37, Marguerite de St. Amand; 38, Marquise de Castellane; 39, Maurice Bernardin; 40, Pierre Notting; 41, Camille de Roban; 42, Senateur Vaisse; 43, Victor Verrier; 44, Catherine Mernet; 45, Deviensiens; 46, Comtesse de Nadallac; 47, Souvenir de Paul Neron; 48, La France; 49, John Hopper; 50, Gloire de Sautenay.

Mr. GEORGE COOLING, *Bathaston Nurseries, Bath*.—1, Alfred Colomb; 2, Annie Laxton; 3, Camille Bernardin; 4, Charles Lefebvre; 5, Comtesse d'Oxford; 6, Duke of Edinburgh; 7, Ferdinand de Lesseps; 8, John Hopper; 9, La France; 10, Louis Van Houtte; 11, Madame Rothschild; 12, Madame Victor Verrier; 13, Mdlle. Eugénie Verdier; 14, Marquise de Castellane; 15, Etienne Levot; 16, Pierre Notting; 17, Senateur Vaisse; 18, Gloire de Dijon; 19, Niphotos; 20, Maréchal Niel; 21, Abel Grand; 22, Baron Louise Uxkull; 23, Beauty of Waltham; 24, Capitaine Lamure; 25, Comte de Nanteuil; 26, Dr. Andry; 27, Comtesse de Chabranat; 28, Dupuy-Jamain; 29, Fisher Holmes; 30, François Michelon; 31, General Jacqueminot; 32,

Jules Margottin; 33, Lælia; 34, Lord Macanlay; 35, Madame Bellon; 36, Madame Charles Wood; 37, Mdlle. Bonnaire; 38, Marie Baumann; 39, Marie Raby; 40, Marguerite de St. Amand; 41, Paul Neron; 42, Camille de Rohan; 43, Princess Beatrice; 44, Princess Mary of Cambridge; 45, Richard Wallace; 46, Xavier Olibo; 47, Devoniensis; 48, David Pradel; 49, Souvenir de Malmaison; 50, Souvenir d'un Ami.

Mr. R. SMITH, *St. John's Nurseries, Worcester*.—1, Alfred Colomb; 2, Charles Lefebvre; 3, John Hopper; 4, Marie Baumann; 5, Souvenir d'un Ami; 6, Sénateur Vaisse; 7, Comtesse d'Oxford; 8, Etienne Levé; 9, Duke of Edinburgh; 10, Marquise de Castellane; 11, La France; 12, Maréchal Niel; 13, Madame Lacharme; 14, Madame Victor Verdier; 15, Madame Rothschild; 16, Gloire de Dijon; 17, Pierre Notting; 18, Louis Van Houtte; 19, Boule de Neige; 20, Mdlle. Eugénie Verdier; 21, Devoniensis; 22, Madame Willermoz; 23, Madame George Schwartz; 24, Madame Jules Margottin; 25, Madame Vidot; 26, Mdlle. Marie Raby; 27, Mdlle. Annie Wood; 28, Mdlle. Bonnaire; 29, Perfection de Montplaisir; 30, Souvenir d'Elise; 31, Marguerite de St. Amand; 32, Edouard Morren; 33, Xavier Olibo; 34, Dr. Andry; 35, Ferdinand de Lesseps; 36, Emilie Hausburg; 37, Paul Neron; 38, Céline Forestier; 39, President Thiers; 40, Richard Wallace; 41, Princess Beatrice; 42, François Michelon; 43, Baronne de Maynard; 44, Elise Boelle; 45, Abel Grand; 46, Duke of Wellington; 47, Dupuy-Jamain; 48, Reynolds Hole; 49, Abbé Bramet; 50, Perle de Lyon.

Messrs. CURTIS, SANDFORD & Co., *Devon Rosey, Torquay*.—1, Alfred Colomb; 2, Camille Bernardin; 3, Centifolia Rosea; 4, Charles Lefebvre; 5, Comtesse d'Oxford; 6, Devoniensis; 7, Duke of Edinburgh; 8, Etienne Levé; 9, Ferdinand de Lesseps; 10, Gloire de Dijon; 11, La France; 12, Lælia; 13, Louis Van Houtte; 14, Madame Rothschild; 15, Madame Victor Verdier; 16, Maréchal Niel; 17, Marie Baumann; 18, Marquise de Castellane; 19, Pierre Notting; 20, Souvenir d'un Ami; 21, Alba Rosa; 22, Antoine Ducher; 23, Baron de Bonstetten; 24, Bessie Johnson; 25, Bonquet d'Or; 26, Catherine Mermet; 27, Céline Forestier; 28, Cloth of Gold; 29, Dr. Andry; 30, Duc de Rohan; 31, Duke of Wellington; 32, Dupuy-Jamain; 33, Emilie Hausburg; 34, François Michelon; 35, Général Jacqueminot; 36, John Hopper; 37, Jules Margottin; 38, Madame Berard; 39, Madame Willermoz; 40, Mdlle. Marie Raby; 41, Mdlle. Eugénie Verdier; 42, Marguerite de St. Amand; 43, Marie Van Houtte; 44, Niphotos; 45, Paul Neron; 46, Camille de Rohan; 47, Rubens; 48, Souvenir d'Elise; 49, Victor Verdier; 50, Xavier Olibo.

Messrs. EWING & Co., *Norwich*.—1, Alfred Colomb; 2, Madame Rothschild; 3, Charles Lefebvre; 4, Comtesse d'Oxford; 5, Duke of Edinburgh; 6, Edward Morren; 7, Elise Boelle; 8, Etienne Levé; 9, John Hopper; 10, La France; 11, Louis Van Houtte; 12, Marie Baumann; 13, Mdlle. Eugénie Verdier; 14, Sophie Coquerel; 15, Devoniensis; 16, Gloire de Dijon; 17, Niphotos; 18, Maréchal Niel; 19, Mrs. Rosanquet; 20, Boule de Neige; 21, Anna Diesbach; 22, Comtesse de Chabrilant; 23, Dr. Andry; 24, Elie Morel; 25, Exposition de Brie; 26, François Michelon; 27, Horace Vernet; 28, Imperatrice Eugénie; 29, Lord Clyde; 30, Madame George Schwartz; 31, Madame Victor Verdier; 32, Paul Neron; 33, William Bull; 34, Mdlle. Bonnaire; 35, Camille de Rohan; 36, Xavier Olibo; 37, Sénateur Vaisse; 38, Vicomte Vigier; 39, Souvenir de Romain Desprey; 40, Queen of Bourbons; 41, Souvenir de Malmaison; 42, Louise de Savoie; 43, Madame Bravy; 44, Madame Charles; 45, Madame Jules Margottin; 46, Perle de Lyon; 47, Sombreuil; 48, Souvenir d'Elise; 49, Cloth of Gold; 50, Madame Caroline Kuster.

Mr. FRASER, *Lea Bridge Road Nurseries, Leyton, E.*—1, Alfred Colomb; 2, Charles Lefebvre; 3, Comtesse d'Oxford; 4, Duke of Edinburgh; 5, Elie Morel; 6, La France; 7, Louis Van Houtte; 8, Madame Lacharme; 9, Mdlle. Eugénie Verdier; 10, Marguerite de St. Amand; 11, Marie Baumann; 12, Marquise de Castellane; 13, Etienne Levé; 14, François Michelon; 15, Richard Wallace; 16, Belle Lyonnais; 17, Devoniensis; 18, Maréchal Niel; 19, John Hopper; 20, Madame Rothschild; 21, Abel Grand; 22, Auguste Rigotard; 23, Dr. Andry; 24, André Ducaud; 25, Duke of Wellington; 26, Edward Morren; 27, Elise Boelle; 28, Ferdinand de Lesseps; 29, Fisher Holmes; 30, Horace Vernet; 31, Lyonnais; 32, Madame C. Wood; 33, Madame Noman; 34, Madame Victor Verdier; 35, Marie Raby; 36, Paul Neron; 37, Camille de Rohan; 38, Reynolds Hole; 39, Sénateur Vaisse; 40, Xavier Olibo; 41, Victor Verdier; 42, Souvenir de la Malmaison; 43, Souvenir d'Elise; 44, Souvenir d'un Ami; 45, Rubens; 46, Marie Van Houtte; 47, Niphotos; 48, Madame Falcot; 49, Vicomtesse de Cazez; 50, Catherine Mermet.

Mr. WALTERS, *Mount Radford Nursery, Exeter*.—1, Alfred Colomb; 2, Camille Lefebvre; 3, Comtesse d'Oxford; 4, Dr. Andry; 5, Etienne Levé; 6, John Hopper; 7, La France; 8, Louis Van Houtte; 9, Madame Rothschild; 10, Madame Victor Verdier; 11, Marie Baumann; 12, Marquise de Castellane; 13, Sénateur Vaisse; 14, Marguerite de St. Amand; 15, Camille de Rohan; 16, Victor Verdier; 17, Maréchal Niel; 18, Devoniensis; 19, Gloire de Dijon; 20, Souvenir d'un Ami; 21, Abel Grand; 22, Antoine Ducher; 23, Beauty of Waltham; 24, Camille Bernardin; 25, Centifolia Rosea; 26, Duchesse de Caylus; 27, Duke of Edinburgh; 28, Duke of Wellington; 29, Edward Morren; 30, Elie Morel; 31, Ferdinand de Lesseps; 32, Jules Margottin; 33, François Michelon; 34, Madame Charles Wood; 35, Madame George Schwartz; 36, Madame Willermoz; 37, Maurice Bernardin; 38, Paul Neron; 39, Mdlle. Marie Raby; 40, Mdlle. Bonnaire; 41, Mdlle. Eugénie Verdier; 42, Mdlle. M. Dombain; 43, Pierre Notting; 44, Sénateur Vaisse; 45, Xavier Olibo; 46, Céline Forestier; 47, Souvenir de Malmaison; 48, Catherine Mermet; 49, Niphotos; 50, Princess Mary of Cambridge.

Mr. B. CRAIG, *Car Colston, Bingham, Notts*.—1, Alfred Colomb; 2, Charles Lefebvre; 3, Comtesse d'Oxford; 4, Comtesse de Chabrilant; 5, Duke of Edinburgh; 6, Emilie Hausburg; 7, Etienne Levé; 8, Ferdinand de Lesseps; 9, François Michelon; 10, La France; 11, Louis Van Houtte; 12, Madame Victor Verdier; 13, Madame Rothschild; 14, Marie Baumann; 15, Marquise de Castellane; 16, Pierre Notting; 17, Sénateur Vaisse; 18, Gloire de Dijon; 19, Maréchal Niel; 20, Mdlle. Eugénie Verdier; 21, Abel Grand; 22, Camille Bernardin; 23, Dr. Andry; 24, Duchesse de Caylus; 25, Dupuy-Jamain; 26, Edouard Morren; 27, Exposition de Brie; 28, Félix Genero; 29, John Hopper; 30, Hippolyte Flandrin; 31, Lord Macanlay; 32, Horace Vernet; 33, Louise Peyronny; 34, Madame Caillaud; 35, Madame C. Wood; 36, Madame C. Craplet; 37, Madame Clémence Joigneux; 38, Xavier Olibo; 39, Mdlle. Marie Raby; 40, Mdlle. Thérèse Levé; 41, Mdlle. Annie Wood; 42, Maréchal Vaillant; 43, Marguerite de St. Amand; 44, Sophie Coquerel; 45, Victor Verdier; 46, Catherine Mermet; 47, President; 48, Souvenir d'un Ami; 49, Souvenir de Malmaison; 50, Maurice Bernardin.

Mr. H. BENNETT, *Stapleford, Wilton*.—1, Alfred Colomb; 2, Baron de Bonstetten; 3, Charles Lefebvre; 4, Capt. Christy; 5, Comtesse d'Oxford; 6, Dr. Andry; 7, Duchesse de Edinburgh; 8, Emilie Hausburg; 9, Etienne Levé; 10, François Michelon; 11, La France; 12, Louis Van Houtte; 13, Madame

Louise Levéque; 14, Madame Rothschild; 15, Madame Victor Verdier; 16, Mdlle. Eugénie Verdier; 17, Mdlle. Marie Cointet; 18, Marie Baumann; 19, Maréchal Niel; 20, Marquise de Castellane; 21, Auguste Rigotard; 22, Devienne Lamy; 23, Duke of Edinburgh; 24, Duchesse de Caylus; 25, Duchesse de Moroy; 26, Duchesse d'Orléans; 27, Dupuy-Jamain; 28, François Louvat; 29, Hippolyte Flandrin; 30, Madame Boutin; 31, Madame Charles Wood; 32, Madame Hippolyte Jamin; 33, Madame Lacharme; 34, Madame Willermoz; 35, Marquise de Gibot; 36, Xavier Olibo; 37, Pierre Notting; 38, Paul Neron; 39, Madame Marguerite Jamin; 40, Pauline (salabot); 41, Sénateur Vaisse; 42, Ferdinand de Lesseps; 43, Marguerite de St. Amand; 44, Camille Bernardin; 45, Catherine Mermet; 46, Souvenir d'un Ami; 47, Souvenir d'Elise; 48, Niphotos; 49, Horace Vernet; 50, Madame George Schwartz.

Mr. CRANSTON, *King's Acre, Hereford*.—1, Alfred Colomb; 2, Charles Lefebvre; 3, Comtesse d'Oxford; 4, Horace Vernet; 5, La France; 6, Louis Van Houtte; 7, Madame Rothschild; 8, Madame Victor Verdier; 9, Mdlle. Eugénie Verdier; 10, Marguerite de St. Amand; 11, Marie Baumann; 12, Marquise de Gibot; 13, Marquise de Castellane; 14, Etienne Levé; 15, Pierre Notting; 16, Devoniensis; 17, Gloire de Dijon; 18, Niphotos; 19, Souvenir d'un Ami; 20, Maréchal Niel; 21, Alice Dureau; 22, Annie Laxton; 23, Annie Wood; 24, Baron Bonstetten; 25, Captain Christy; 26, Comtesse de Chabrilant; 27, Duchesse de Caylus; 28, Duke of Edinburgh; 29, Dupuy-Jamain; 30, Edward Morren; 31, Emilie Hausburg; 32, Exposition de Brie; 33, John Hopper; 34, Jules Margottin; 35, Madame Chate; 36, Madame Charles Wood; 37, Madame George Schwartz; 38, Madame Laurent; 39, Madame Vidot; 40, Mdlle. M. Dombain; 41, François Michelon; 42, Paul Neron; 43, Camille de Rohan; 44, Victor Verdier; 45, Xavier Olibo; 46, Alba Rosa; 47, Catherine Mermet; 48, Madame Willermoz; 49, Perle de Lyon; 50, Souvenir d'Elise.

Mr. J. HARRISON, *North of England Nursery, Darlington*.—1, Annie Laxton; 2, Alfred Colomb; 3, Catherine Mermet; 4, Charles Lefebvre; 5, Comtesse d'Oxford; 6, Duke of Edinburgh; 7, Dr. Andry; 8, Etienne Levé; 9, Exposition de Brie; 10, Ferdinand de Lesseps; 11, François Michelon; 12, Horace Vernet; 13, Louis Van Houtte; 14, Madame Auguste Verdier; 15, Marie Van Houtte; 16, Maréchal Niel; 17, Marquise de Castellane; 18, Marie Baumann; 19, Pierre Notting; 20, Vélours Pourpre; 21, Abel Grand; 22, Bessie Johnson; 23, Madame Rothschild; 24, Cheesnut Hybrid; 25, Duke of Wellington; 26, Emilie Hausburg; 27, Gloire de Dijon; 28, John Hopper; 29, La France; 30, Lyonnais; 31, Duchesse de Moroy; 32, Lælia; 33, Madame V. Verdier; 34, Madame Berard; 35, Mdlle. Eugénie Verdier; 36, Pierre Selyetzky; 37, Claude Levé; 38, Mons. Woolfield; 39, Princess Louise; 40, Princess Beatrice; 41, Prince of Wales; 42, Reine du Midi; 43, Richard Wallace; 44, Sophie Coquerel; 45, Sénateur Vaisse; 46, Souvenir d'Elise; 47, Thérèse Levé; 48, Victor Verdier; 49, Xavier Olibo; 50, Marguerite de St. Amand.

Mr. WHEELER, *Warminster*.—1, Alfred Colomb; 2, Antoine Ducher; 3, Charles Lefebvre; 4, Comte de Nanteuil; 5, Comtesse d'Oxford; 6, Duchesse de Edinburgh; 7, Edward Morren; 8, Etienne Levé; 9, Exposition de Brie; 10, Félix Genero; 11, Ferdinand de Lesseps; 12, Madame Filion; 13, Madame Moreau; 14, Marguerite de St. Amand; 15, Marie Baumann; 16, Marquise de Mortemart; 17, Pierre Notting; 18, Souvenir d'un Ami; 19, Maréchal Niel; 20, Mrs. Veitch; 21, Bessie Johnson; 22, Beauty of Waltham; 23, Charles Ronillard; 24, Devenue Lamy; 25, Duke of Edinburgh; 26, Dupuy-Jamain; 27, Elie Morel; 28, Emilie Hausburg; 29, François Michelon; 30, François Lacharme; 31, Hippolyte Flandrin; 32, Horace Vernet; 33, John Hopper; 34, La France; 35, Louis Van Houtte; 36, Marquise de Castellane; 37, Paul Neron; 38, Maurice Bernardin; 39, Sénateur Vaisse; 40, Madame Creyton; 41, Madame C. Craplet; 42, Madame Charles Wood; 43, Madame Rothschild; 44, Madame Victor Verdier; 45, Mdlle. Feraude de la Forest; 46, Devoniensis; 47, Gloire de Dijon; 48, Madame Berard; 49, Princess Beatrice; 50, Princess Mary of Cambridge.

Mr. J. DURBIN, *Englischemoor Rosery, Bath*.—1, Alfred Colomb; 2, Charles Lefebvre; 3, Comtesse d'Oxford; 4, Duke of Edinburgh; 5, Edward Morren; 6, Duchesse de Moroy; 7, John Hopper; 8, La France; 9, Madame Rothschild; 10, Madame Clémence Joigneux; 11, Madame Hippolyte Jamin; 12, Mdlle. Bonnaire; 13, Mdlle. Eugénie Verdier; 14, Marie Baumann; 15, Maréchal Niel; 16, Etienne Levé; 17, Souvenir d'un Ami; 18, Devoniensis; 19, Catherine Mermet; 20, François Michelon; 21, Souvenir de Malmaison; 22, Gloire de Dijon; 23, Gloire de Vitry; 24, Mdlle. Sertot; 25, Mdlle. Annie Wood; 26, Paul Neron; 27, Madame Scipion Couchet; 28, Madame Victor Verdier; 29, Marquise de Gibot; 30, Marquise de Mortemart; 31, Marquise de Castellane; 32, Sophie Coquerel; 33, Louise Peyronny; 34, Louis Van Houtte; 35, Lord Macanlay; 36, Princess Mary of Cambridge; 37, Sénateur Vaisse; 38, Marguerite de St. Amand; 39, Jules Margottin; 40, François Lacharme; 41, Emilie Hausburg; 42, Anna de Diesbach; 43, Black Prince; 44, Camille Bernardin; 45, Dupuy-Jamain; 46, Pierre Selyetzky; 47, Elise Boelle; 48, Pierre Notting; 49, Charles Lee; 50, Boule de Neige.

—JOSEPH HINTON, *Warminster*.

I THINK that many readers of "our Journal" will be anxious, like myself, to thank Mr. Hinton for the treat he has been giving us during the last fortnight. The trouble he has taken must be immense, and it is pleasant to congratulate him on complete success.

In reading over the amateurs' lists I must confess to an individual feeling of work somewhat imperfect. "Were things to be done over again all would be wise." If my list were to write again, dear old Général Jacqueminot, Reynolds Hole, Devoniensis, and Boule de Neige would not be omitted; Madame Lacharme's place would be greatly endangered, and Captain Christy must have come in. But I have felt the difficulty strongly, which Mr. Hinton rather raises. What is a best Rose? I incline to think that, if asked to name twenty-four of the best exhibition, the best garden, and the best good all-round Roses, we should most of us give in three different lists; at any rate in the two former there would be considerable divergence. It is with great grief I see Charles Lefebvre displaced from the premier Rose throne, nor can I quite acquiesce in the sentence. I venture also to think that Ches-

hant Hybrid will certainly be seen high up at the next election. Why Abel Grand has been promoted into such a place of honour by a high authority in one instance puzzles me; nor am I quite satisfied with the way in which the "Old Glory," as my gardener calls it, has been treated. The once well-known owner of Brockham Lodge, here, used to sing—

"If ever condemned in the country to dwell,
Oh! give me the sweet shady side of Pall Mall."

And if restricted to one Rose, I believe that many would say, Give me Gloire de Dijon!

I must confess to disappointment at the way the summer Roses have fared. Surely Paul Rieaut has not even yet forfeited his place in "the box!" Charles Lawson is most vigorous, and of a lovely colour. I have not the pleasure of knowing your genial correspondent "D., Deal," in the flesh, but I greatly admire the Rev. H. Dombrain in the Rose bed. Referring to one other remark of Mr. Hinton, if he wishes to eliminate, why not restrict himself to those electors who agree in some certain number out of the fifty he asks for? and he might classify if he liked north, south, and mid-England. Roses evidently are very different in different localities.—ALAN CHEALES.

I WANT to thank Mr. Hinton and the electors for providing such a useful guide to small purchasers, who, like myself, cannot afford to buy a lot of new sorts with perfectly gorgeous descriptions, and in many instances nothing else to recommend them. The six Roses at the head of the poll in 1873 are all in the first fifteen of this year's election. Can anyone desire better advice than this? Does it not show that whilst there will always be great differences of individual opinion, not to say whimsical fancies, as to the merits of some Roses, yet the best will be first if proper means be used to arrive at an unprejudiced and impartial judgment? Let those who are about to begin Rose cultivation be advised to take the first six, twelve, eighteen, twenty-four, or more of the list published in the Journal of September 24th, and they may depend upon having, whichever number they decide on, a really unique and thoroughly satisfactory collection of its kind. By the time their ideas have enlarged to fifty or more varieties, enough experience will have been acquired to do without assistance, except in the selection of new sorts, and they may then indulge in as many whims and extravagancies as the state of their finances will permit.

That there are no really good white Hybrid Perpetuals is well known, yet perhaps for the sake of effect it would be desirable for everyone to have a plant of Boule de Neige, No. 77, or Louise Darzens, not placed, but more hardy and free-flowering than Boule de Neige. I will conclude with the hope, which will find an echo in the hearts of all Rose lovers, that we may soon have a snow-white Alfred Colomb or Charles Lefebvre.—E. L. W., Yeovil.

MR. HINTON is quite right in recommending beginners to try Marie Baumann. It is a mistake to consider this Rose a weak grower; Mr. George Paul in his last catalogue describes it as vigorous. Budded on the Briar it is a good healthy grower, rather strong than weak. Possibly Mr. Radelyffe has grown it only on the Manetti. I found it did not succeed so well on that stock, and I have of late grown it on the Briar only. I have nearly a hundred plants, and I am undecided whether this or La France is the best Hybrid Perpetual ever yet seen; one or the other is—at least in my estimation. The only fault I can find with Marie Baumann is that the flower-stalk being rather long and thin the Rose is apt to hang its head, as pointed out by Mr. Hinton. I wish Mr. Radelyffe lived nearer to me, and I would get him to come and see my plants of this lovely Rose when in full bloom. He would be delighted, and I am sure would say, "Marie Baumann for ever!" Louisa Van Houtte is robust here on the Briar, and Felix Genero strong on the Manetti. Louis XIV. used to grow very strongly with me here on the Manetti, but it was such an uncertain flower that I long since discarded it. It is a splendid flower, and not yet equalled in its colour when it comes in character, and its perfume is exquisite.

Madame Vidot should be worked anew every year on the Briar; the blooms on once-cut-back plants will in anything like a Rose soil be found on such plants all that can be desired. Of course this will only suit enthusiasts. People who buy their plants and "stick them in," and take no further trouble with them, cannot grow Madame Vidot, a Rose which, in my opinion, is not sufficiently valued. I think, however, that this

Rose is too formal in outline to suit the tastes of many. I was particularly struck last summer by the fact that several times when I pointed out what I thought a splendid bloom of this Rose to ladies—and ladies of taste too—that I got a very reluctant assent to my remark, "There is a fine Rose!" and on following the question up, I found that the Rose was "too formal." The best bloom of Madame Vidot I ever saw was shown by Mr. Cant several years ago at Epping. Although I find it do best on the Briar, I understood that this bloom was cut from a maiden Manetti plant. Madame Rivers, which seems to be closely related, curiously enough does here much better on the Manetti than on the Briar.—R. H. P.

You will, I am sure, be pleased to hear that Capt. Christy, Lacharme's new Rose, is a beauty. I cut my first bloom this morning. It will gladden the hearts of exhibitors, as it is full of substance, good foliage, the whole bearing of the plant first-rate.

Though rather exposed at Yatton, Somersaet, I can still cut really nice blooms of Fisher Holmes, Annie Wood, Vicomte Vigier, La France, Dupuy-Jamain, Pitord, Ferdinand de Lesseps, Capt. Lamure, Louisa Wood, John Keynes, Céline Forestier, Reine du Midi, Boule de Neige, David Pradel, Madame Bravy, Climbing Devoniensis, Paul Neron, America, and, of course, Gloire de Dijon, my desk looking quite gay as I write, Capt. Christy being a good centre.—J. HOBBS.

THE PELARGONIUM SOCIETY.

I THINK the meeting the other day at Kensington was quite as successful as we could anticipate. To start a society, form a committee, and be able to offer a few good prizes for next year, is not a bad beginning. The offer of £8 8s. for twelve plants is sure to produce competition, whilst good prizes for collections of small plants will insure variety, and the conditions insisted upon that the raiser's name shall be attached will satisfy the *amour propre* of those who produce new kinds. The public will be sure to benefit by seeing the best sorts in cultivation, whether raised here or on the Continent, and the raisers will be enabled to introduce fresh blood into their strains.

It was also pointed out by Dr. Masters that the species of Pelargonium being so numerous, the stimulus of our Society was very likely to result in fresh tribes of hybrids, which might be quite as ornamental as the Zonals and Nosegays already produced. Those who will help us ought to know that Dr. Denny, of Stoke Newington, is the treasurer; but I hope we shall soon see a list of the members published, and any of us will be glad to receive subscriptions: for such an object I do not object to beg. The subscription of members is 21s., but any sum shall be acknowledged by me with thanks.

I am looking out for ornamental species of Geraniums, and anyone having such to dispose of which they think might be useful for cross-breeding would oblige by letting me know. Can any of your readers inform us of the collections there may be in existence? It is a pity any material should lie dormant which might give rise to new beauties.—J. R. PEARSON, *Chilwell*.

VALLOTA PURPUREA.

I LATELY saw a notice of a seedling of this with a white spot on one of the petals. I have known the Vallota for thirty-two years, but this new variety I have not had the pleasure of seeing. It is rather odd to hear this Vallota named purplea, as it is not purple, but the late Mr. McNab, of the Edinburgh Botanic Gardens, told me that it took its name from the purple colour of the leaves at the top of the bulbs; but this seems to me an odd way of naming a plant.

I think the Vallota one of our best of bulbous-rooted plants, it blooms so freely every year; and though I used to see it grown in a stove, it will do equally well in a greenhouse; and it is so accommodating that it is grown out of doors as a hardy plant in Ayrshire, and at flower shows is exhibited as a hardy herbaceous plant. If it can stand our winters it will become a great addition to our hardy plants; a bed of it in bloom in September would be something desirable. I saw a pot plant of it last week in full bloom, and there had been thirty-four stems on it, but a few were cut when I saw it. It was grown in a pot a size larger than a No. 1, and was in fine health. The grower told me there were several varieties; but very possibly some plants may appear a little different, according as they are well or ill grown. The plant was brought from

the Cape of Good Hope a hundred years ago.—J. ADDISON, *Ormiston, Tranent, N.B.*

ROYAL HORTICULTURAL SOCIETY.

OCTOBER 7th.

THE exhibition of Fungi, which was the principal feature at this meeting, although of a most interesting character, was by no means large—indeed, in only two of the classes was there more than one exhibitor. The arrangement of having white labels for the edible kinds, red for the poisonous, and yellow for those which come under neither category, is an excellent idea, and adds much to the instructive character of the exhibition. In Class 1, for a collection arranged according to botanical affinities, equal first prizes were awarded to Mr. B. J. Austin, 6, Russell Street, Reading, and Mr. J. English, of Epping, who have each distinguished themselves at former shows. Among the edible species we noticed *Agaricus rubescens*, *procerus*, *nebularis*, *personatus*, *Orcella*, *prunulus*, *Oreades* (*Mouceron*) *sylvaticus*, *campestris*; *Coprinus comatus*, the *Maned Agaric*, one of the best; *Fistulina hepatica*, the *Liver* or *Beef-steak Fungus*, which is also excellent; *Russula heterophylla*, which must be carefully distinguished from a poisonous species having also a green tint; *Sparassis crispa*, *Hydnum repandum*, *Clavaria vermiculata* and *coralloides*, *Lycoperdon saccatum*, *Cantharellus cibarius*, or the highly-esteemed *Chantarelle*, *Boletus edulis*, *Hygrophorus virgatus*, and *Tremella foliacea*.

In the next class the best collection of edible Fungi came from Mr. B. J. Austin, and included most of the above, as well as *Lactarius deliciosus*, the *Giant Puffball*, but not large; *Boletus scaber*, *Tricholoma alba*, &c. Mr. English was second, and the same exhibitor was first with the only collection of new or rare species. In this were *Hydnum ferrugineum*, *Hymenochaete tabacina*, *Lentinus cochleatus*, *Helvella lacunosa*, *Cortinarius decolorata*, *Tremella tremulina*, and several others, all of which are of a doubtful character. There was also a class for cultivated edible Fungi not now known in a cultivated state, but it would appear as if no recent attempts have been made by private individuals in this direction, as no one came forward to claim the prizes.

Mrs. Chapman, 36, Lancaster Gate, exhibited a number of admirably-executed portraits of Fungi.

FRUIT COMMITTEE.—Alfred Smee, Esq., F.R.S., in the chair. Specimens of Gourda came from the Society's gardens, and among them was a variety of the *Bottle Gourda*. A dish of Shallots, very fine, was sent by Mr. Garland, of Killerton Gardens, Devon, which the Committee considered a good variety.

Messrs. Maule & Sons, Bristol, sent cut specimens of the fruit of *Pyrus* or *Cydonia japonica*, also marmalade made from the fruit, which fully confirms the first-class certificate awarded to it at the Society's Show at Bath. From Mr. Chamberlain, The Warren, Bushy Heath, came a handsome specimen of *Charlotte Rothchild Pine Apple*, weighing 8 lbs. 13 ozs., which received a commendation. A similar award was given to two handsome specimens of *Smooth-leaved Cayenne*, weighing 19½ lbs., from Mr. Jones, the Royal Gardens, Frogmore.

Mr. W. Paul, Waltham Cross, sent specimens of his new *Grape Waltham Cross* in good order, of fine colour and good flavour. He also sent a bunch of his new *Grape Winter Muscadine*, which the Committee requested should be seen again in January next. From Harrison Weir, Esq., Weirleigh, Brencley, came a seedling *Black Grape* named *The Artist*, grown in his ground viney—a good-looking *Grape*, which the Committee recommended should be grown in heat and sent again. *Madresfield Court* grown under the same conditions was shown by Mr. Weir in capital condition, and a cultural commendation was awarded. Another *Grape* came from Mr. Peter Grieve, of Culford Hall, but it was not ripe; the same exhibitor sent a *Pear* named *Lucy Grieve*, which also proved to be unripe. Mr. Bennett, of Hatfield Gardens, exhibited a dish of *De l'Archipel Figs*. The same exhibitor sent some hybrid *Melons*, which were passed. A seedling *Pear* from Mr. Stevens, Trentham Gardens, was likewise passed.

A dish of *Portugal Quinces* came from D. Baker, Esq., of Shirley Road, Southampton, which were awarded a letter of thanks. Mr. Webster, of Gordon Castle, Aberdeenshire, sent a seedling *Apple* called *Northern Dumpling*, which when judged with several other well-known and approved sorts was considered a very good sort for that locality. Messrs. Carter & Co., High Holborn, sent a new *Tomato*, a sport from *Hathaway's Excelair*, but yellow in colour. It was awarded a first-class certificate. A seedling *Apple* came from Mr. Perry, Albion Hotel, Woking Station, which was passed. It had a very high colour. Mr. Hooker, Toddington, Beds, sent a plate of a seedling *Damson* which was not ripe.

FLORAL COMMITTEE.—R. B. Postans, Esq., in the chair. From Messrs. Veitch, of Chelsea, came a large collection of *Orchids*, including a number of the hybrids raised at their establishment by Mr. Dominy. Among them were the lovely *Calanthe Veitchii*,

Cattleya Dominiana, *superba*, *hybrida picta*; several *Cypripediums*, as *Ashburtoniae*, a pan of the beautiful and very distinct *Cypripedium Sedeni*, and a seedling raised from C. Fairriannum and *insigne*. *Cattleya fausta*, a hybrid between C. Loddigesii and *exoniensis*, lilac purple, with a purple lip, rich yellow at the base, was awarded a first-class certificate. In the same group was a splendid specimen of *Odontoglossum grande*, with *Dendrobium McCarthiae*, the *Dove Plant*, and other species. Some cut blooms of Japanese *Chrysanthemums* also came from the same firm.

Messrs. E. G. Henderson & Son, St. John's Wood, sent pot plants of *Cratægus Pyracantha* loaded with fruit, a collection of *Pompon Dahlias*, and *Golden Chain* variegated *Thyme*, apparently an improvement on *Thymus aureo-marginatus*, along with which it was shown. Mr. J. Chambers, Westlake Nursery, had a first-class certificate for *Begonia Royalty*, with very large pale red flowers, and the plant of compact growth. *Odontoglossum crispum* (Alexandre) with a fine spike, but a poor variety as regards the size and colouring of the flower, was shown by Mr. G. Toll, Hullard Hall Nursery, Manchester. *Kniphofia McOWani*, with small heads of flowers, in fact a miniature *Tritoma*, exhibited by Mr. Green, Holmesdale Road, Regent's Park, received a first-class certificate. It seems likely to be useful, as being dwarfer than *Tritoma Uvaria*.

Mr. Marchant, gardener to General Haukey, Sandgate, sent shoots of the *Sweet Bay* finely berried, and of the *Tamarisk* densely set with bloom. From Mr. Crusell, Fairy Croft Nursery, Safron Walden, came *African* and *French Marigolds*, the former large, and the lemon and orange varieties of the latter excellent. Mr. B. Porter, gardener to Mrs. Benham, Sion House, Isleworth, sent a number of seedling varieties of *Tropæolum Lobbianum*, and of *Pentstemon*, which do not call for special remark; Messrs. Jackson & Son, Woking, *Rhododendron aureo-limbatum*, of which the leaves are partially edged with yellow, but the variegation is somewhat irregular, and chiefly confined to the upper portion of the leaf. The plant, however, is very neat in habit.

A few seedling *Dahlias* were exhibited, but the only one that gained an award was *Sarah McMillan*, deep rose, from Mr. Rawlings of Romford.

Mr. W. Paul of Waltham Cross sent six boxes of cut *Roses*; Messrs. Maule & Sons, Bristol, a few cut *Orchids*; and Mr. Woodbridge, gardener to the Duke of Northumberland, Sion House, shoots of *Vitis heterophylla* beautifully berried, and than which few plants could look more elegant and ornamental. A first-class certificate was awarded.

PORTRAITS OF PLANTS, FLOWERS, AND FRUITS.

CRINUM MOOREI. *Nat. ord.*, *Amarylhidaceæ*. *Linn.*, *Hexandria Monogynia*.—Native of South Africa. Flowers pink. "A hardy *Crinum* is a rarity in English gardens, and, except the beautiful *C. capense*, I know no other but this now in open-air cultivation; and beautiful as *C. capense* is, it is far exceeded in size, foliage, and colour by the subject of the present plate.

"*Crinum Moorei* was introduced into the Glasnevin Gardens in 1863 by a friend of Dr. Moore's, Mr. Webb, who had served on the commissariat staff of our army in South Africa, and had brought the seeds from the interior—as Dr. Moore thinks—of Natal. During the last five years the specimen from which the drawing was made has been planted in a border fronting the conservatory range at Glasnevin, without getting the slightest protection, flowering sometimes in autumn and at other times in spring. The leaves are cut up in winter, but the bulbs are not seriously hurt, and soon recover themselves, when they push out a fresh set of their broad, peculiarly-ribbed leaves, 18 to 20 inches long. The bulb is remarkably long, sometimes reaching 18 inches."—(*Bot. Mag.*, t. 6113.)

BRACHYSEMA UNDULATUM. *Nat. ord.*, *Leguminosæ*. *Linn.*, *Decandria Monogynia*.—Native of South-western Australia. Flowers purple and yellowish green. "*Brachysema undulatum* is a hard-wooded greenhouse shrub, requiring the same treatment as *Chorozemas*, &c. It was raised by Mr. Bull, with whom it flowered in April of the present year. A shrub, 4 to 6 feet high."—(*Ibid.*, t. 6114.)

DECAELONE ELEGANS. *Nat. ord.*, *Asclepiadaceæ*. *Linn.*, *Pentandria Monogynia*.—Native of Angola. Flowers yellow, with brownish-purple long spots. "During the month of June of the present year this extremely interesting plant flowered for the first time in England, in the collection of J. T. Peacock, Esq., of Sudbury House, Hammersmith. A few weeks later flowers were also produced by plants in the Royal Gardens, Kew. The plate has been drawn from Mr. Peacock's specimen, a compliment which is no more than is due to the zeal and enterprise which he has shown in the cultivation of

succulent plants. His plant has been grafted on a *Stapelia*, probably *S. Plantii*."—(*Ibid.*, t. 6115.)

KNIPHOFIA ROOPERI. *Nat. ord.*, Liliaceæ. *Linn.*, *Hexandria Monogynia*.—Native of South Africa. Flowers orange, tipped with scarlet. It is about 2 feet high.—(*Ibid.*, t. 6116.)

ACHILLEA AGERATIFOLIA. *Nat. ord.*, Compositæ. *Linn.*, *Syn-genesia Superflua*.—Native of Greece. Flowers white, with yellow disk. "This charming little plant is a native of the mountains of Greece, and was first detected (in Crete?) by Sibthorp, and it has since been gathered on the mainland by Prof. Orphanides, of Athens, in the middle region of Mount Olympus, at an elevation of 5-7000 feet.—(*Ibid.*, t. 6117.)

WESTWARD HO!—No. 2.

THE kindly influences which the *Journal* exercises on many of its supporters came to my aid at my next resting place, and to it I owe my pleasant *sojourn* at Cheltenham. My friends were (as nearly all Cheltenham was) away from home, and an acquaintance originated by our mutual love of flowers and our interest in the *Journal* stood me in good stead. I have previously described Dr. Abercrombie's garden in Suffolk Square, and the wonderfully fine *Pelargoniums*, *Carnations*, and *Pico-tees* grown by him. To him, as to a great many, this has been a trying season—to him more than many, for the soil of his garden is very light, and many plants which ought to have grown out and filled up their spaces did not do so; while what he calls his gem beds—small beds filled with different plants, were quite a failure. I noticed one very good effect produced on his long border by *Crystal Palace Gem Geranium*, the flowers being left on, which gave a very beautiful hue of colour. Owing to a change of gardeners and to an interregnum of some time his *Pelargoniums* were not quite up to the mark of last year, although very fine. Of course I could not be at Cheltenham without giving a look-in at Mr. Cypher's, who, however, seems at this season of the year to be in a chronic state of exhibiting. Travel where you may in the "west country," probably you will see huge vans, with "James Cypher" on them, performing an up-and-down movement, as I saw them at Bristol, or impeding your own train while they are being shunted. At such a time your ideas of flower shows are not of a very rosy character. Suffice it to say his plants, which were in the act of being packed when I was there, were of their usual excellence, and that the bouquets which Miss Cypher was making up were of that excellence which has won her so good a name not only in Cheltenham but all through the west.

Amongst those ornaments of a profession which can boast of so many good men and true with whom it has been my good fortune to make acquaintance, are men of very different bearing; and at the Taunton show last year I had promised Mr. Cramb, in response to his most pressing invitation, that I would if possible pay him a visit; and although it was a very hurried one, and although the glories of the place where he so ably acts as gardener have been amply detailed in the pages of this *Journal*, yet must I say something of my visit to

TORTWORTH.

Hurried it was indeed. I had promised to be at Bath in the evening, and I could not get away from Cheltenham until twelve; and when I arrived at Charfield station I found that I had to walk some two miles and a half to the house. The day was lovely, the country beautiful; and although I was companionless, I most thoroughly enjoyed a delightful walk. As I neared the well-known seat of Lord Ducie, on every side one saw the signs of a thoughtful landlord, for the delightful residences and well-kept grounds would strike any stranger; and when once entered the gardens, the care and skill manifested everywhere bore witness to the fact that it was under the management of a first-rate gardener, everything was in such perfect order. The kitchen gardens are at a good distance from the mansion, and are contiguous to a very excellent house in which Mr. Cramb resides, Lord Ducie being one of those employers who consider that their gardener is worthy of some better home than oftentimes falls to their lot.

In going through the long range of vineries I was particularly struck with the uniform goodness of both Vines and Grapes. It is well known that Mr. Cramb has been engaged in a controversy on the subject of calcareous soil and the injury it does to the Grape. Various statements have been made *pro* and *con* on the subject; but as Mr. Cramb truly said, "The proof of the pudding is in the eating. While I had the lime-

stone here I could not grow my Grapes properly; I took it all out, and you now see the result." And certainly nothing could be grander than they were. Along the back wall of the houses were some remarkably healthy plants of *Camellias* from which he had, he told me, taken an immense quantity of bloom. At the mansion all was in confusion. The conservatory erected a few years ago had become rotten, and a new one was in course of erection at a cost of £1000. In front of the house a very beautiful *parterre* was in full bloom; but I had only time to take a rapid glance over it, and the very beautiful stretch of landscape beyond, with its picturesque lake and surroundings.

I could only give this rapid glance at the beauties of Tortworth, but I made a promise, which I hope to fulfil, of spending a long day there next year, when I shall be able to say more about it to the readers of our *Journal*. I hurried on to Bath, where I meant to have visited Vellore, the beautiful seat of my much-esteemed friend the Rev. Charles Kemble, rector of Bath; but alas! when I arrived it was but to hear that he was laid low in illness, and that to the great regret of his fellow citizens he had that day resigned his living. I saw something, however, in the way of fruit-growing which I hope to tell about by-and-by.—D., *Deal*.

UTILISING LAWN MOWINGS.

A FRENCH correspondent sends the following on this subject, but there are few of our English gardeners who are not alive to their value. They are, he remarks, a manure but little used, but nevertheless useful in the garden. I refer more particularly to the grass cuttings of large parks, which, if collected in a heap and frequently watered, would in the course of two years form a manure suitable for kitchen-garden crops, and at the end of five or six years would be reduced to a vegetable mould especially suitable for Peas when mixed with the natural soil. This mould is particularly suitable for sandy soils, where it gives the best results; it may also be used in composts for herbaceous plants and Pine Apples. It would therefore, adds our French correspondent, be very desirable to turn to account in the above way the cut grass from the many beautiful parks and lawns of England.

THE BEAUTIFUL AND USEFUL INSECTS OF OUR GARDENS.—No. 25.

LISTENING one day to an individual who was humming an old English song, expressing the romantic wish, "I'd be a butterfly," &c., we suggested to a friend who, with some modifications of his own, holds in the main to the theory of evolution as propounded by certain philosophers of our time, that the words of this piece might be modified to suit modern knowledge, and made retrospective instead of prospective. "We do not really hope to be butterflies," said I; "but on your hypothesis we might sing, 'I was a butterfly' in the person of some ancestor." My friend assumed a severe look at such trifling with science. "No!" he replied, "there's no reason to suppose mankind passed through that stage of existence. From the successional order there were various offshoots during a long course of ages. Man, in the progress of his development, touched the borders of insect life, he may even have been an insect, but hardly a butterfly: he must have been one of the elementary types. Supposing I had a great aunt who married a John Smith, you would not say that I am the host of Smiths that may have descended from him, though these might claim me as a very distant relation." I politely acquiesced, and remarked, "Then, though Tennyson, in his call to us urging us to a nobler life, is right in saying—

"Live upwards, working out the best,
And let the ape and tiger die,"

we have no occasion to repudiate the qualities of a butterfly, because we haven't got them." But I have since thought how these qualities, or instincts if they are to be so called, are misunderstood by the most of us. The traditional character of a butterfly is that of a selfish, indolent, foolish creature, to whose career a speedy close seems a fitting penalty. Much of this is a mistake. On the other hand, as I am reminded by these sunny autumn days, there are numerous butterflies flying hither and thither, prudently filling themselves with honey while they can get it, in preparation for their life of repose during the winter. With prudence, too, these will ere long seek out fitting works in which they can await the call of the

spring, which summons them to preparation for the continuance of the species.

But of the seeming relationship between one species and another, in what we denominate "insect mimicry," we have some curious instances in the moth tribes. Thus, in the "Puss" (see fig. 90) and the "Kittens," of the genus *Dicranura*, the perfect insect looked at from below, as through the lid of a gauze-covered box on which it is resting, reminds us of the head of a white cat in miniature. The caterpillars also when in the dainty stage of their early life, as they rest on the leaves of the Willow, with their "horns" stretched out horizontally from the extremity of the body, look like black kittens greatly reduced, the similarity being increased by two little points on the head projecting like ears. These disappear at a later stage. Reference has been made to the Puss Moth (*D. vinula*) in a former series of papers, as associated with the Willow tree, but

back. The appendages or tubes at the anns (from the interior of which the caterpillar can at its will project slender filaments) are green, ringed with brown. Having arrived at maturity, the next thing one of these caterpillars requires is an abode for the winter. Accordingly, quitting the leaves it crawls to the trunk of some tree, and selecting a suitable spot between 2 and 4 feet from the ground, it forms a cocoon of strong glutinous silk with which it mingles fragments of the bark. This is ingeniously contrived so as to resemble the bark in which it is embedded, and only the eye of an expert can detect it. In a few weeks after it is finished, it is so hard that some force is required to penetrate the exterior with a knife.

The moth, as it is presumed, though its history is not so well known as that of the familiar *D. vinula*, is furnished with a solvent fluid, by means of which it dissolves away the wall of the cocoon when the time of emergence arrives. It is a furry-

looking creature, measuring about 2 inches across the expanded wings. These are of a pale grey, with a broad band of dark grey edged with a black and yellow line; beyond this are several waved black lines, and numerous black spots of small size are sprinkled over the wings. The grey body is surrounded by dingy bands. A slight mention should be made of the closely-connected species called the Sallow Kitten (*D. furcula*), a much rarer insect seemingly, yet which has many localities recorded. In Surrey, not far from London, I have taken the caterpillar on Sallows growing in a nursery garden. The perfect insects are so much alike that the distinctions are not easy to state in words, but if we examine a series of each we then see shades of difference. *D. furcula* is also a smaller insect than *D. bifida*. The adult caterpillars are, however, so far dissimilar that there cannot be a doubt about the distinctness of the two species, and in addition to that fact, we have also the one that each keeps to its

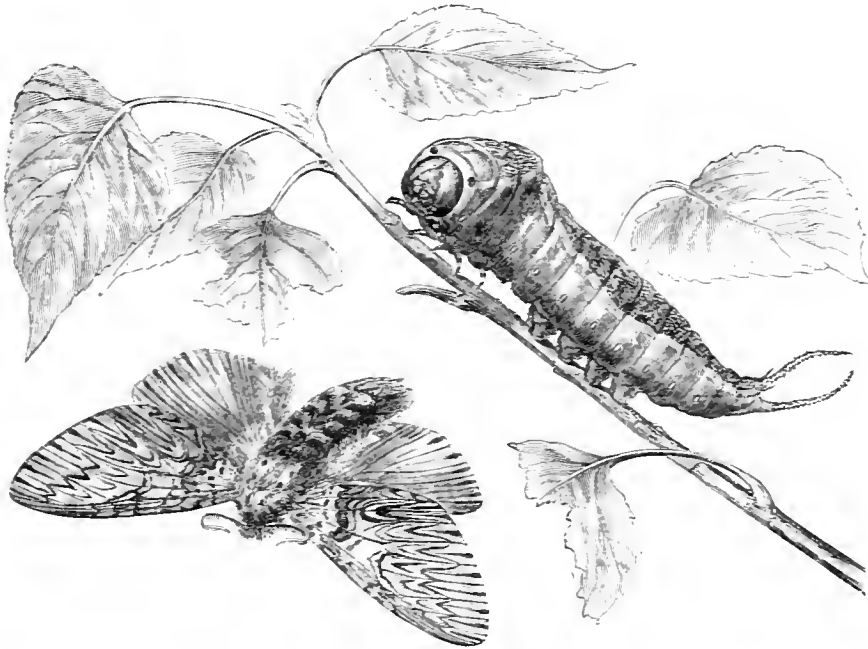


FIG. 90.—MALE PUSS MOTH AND LARVA.

its lesser relatives claim a notice as being occasional visitors to gardens, pretty, and decidedly non-injurious. The Poplar Kitten (*D. bifida*) need to occur about London pretty generally some years ago, though now growing scarce; it is, doubtless, still common in many counties of England, though not easy always to find. In gardens the caterpillar feeds on the *Taxus* *Populus* (*Populus balsamifera*), and I have taken it on a dwarf hedge of the black species (*P. nigra*) in Brompton, which bordered some pleasant gardens now occupied by a row of houses, in which there may be kittens and cats also of a different sort. The mother moth usually deposits her eggs by ones, twos, or threes, sometimes in June, although occasionally it may be later. The caterpillars when hatched hold very firmly to the leaves, liking best to attach themselves to the midrib; nor can these be shaken or beaten from a tree in the way the entomologist finds so efficacious with many kinds that drop at a sudden alarm. I fancy that the caterpillar of the Poplar Kitten must be in its habits not unlike the fat boy depicted by Dickens, with so shocking a propensity to sleep at unreasonable times, for Mr. Newman remarks that he has observed this caterpillar after it has done eating still continue clinging to the edge of the leaf in a torpid attitude. I am not sure, however, that Mr. Newman is right in assuming that it only feeds at night; at least, such is not the case in confinement. Its favourite position when not eating is the "upside attitude," with the head and the hinder segments raised. The head and face are brown, marked with delicate wavy lines, the body of a greyish brown, also marked, and edged with bright yellow; beneath, the caterpillar is of a fine apple green with purplish dots, this colour extending up the fifth segment till it touches a ridge which is situated on that part of the

particular food plant as a rule. One of the habits of the caterpillar of *D. furcula* is a "teaser" to the insect-hunter; it is fond of leaving the growing portions of the plant or tree, and settling on some withered leaf or dry twig when not actually in need of food. There is a far greater variety of colour in this caterpillar than in that of *D. bifida*, which makes it quite a beautiful object. The ground colour is white on the back, and apple green on the sides, the two shades being separated from each other by an irregular purple stripe; there are also lateral stripes of a deeper green. Besides these markings purple spots are arranged at intervals along the back and sides, some of them having white centres. There are also two orange patches on the seventh and eighth segments. The head is grey bordered with purple, the anal horns purple and white. In July, August, or September, we may find this on the Sallows; the cocoon made towards the close of the summer is like that of others in the genus, and in it the chrysalis remains till May or June. We have in Britain one more "Kitten," not a garden species, but it may be named here. This is the Alder Kitten *D. hibernica*, only discovered as yet in a few English counties, and seemingly most partial to the "Weald of Sussex." The food plant of this is the Alder.

Two moths, which are the English representatives of the genus *Chamaea*, resort to our gardens in September and October after dusk, attracted by the yet remaining flowers. I have not noticed them close to the metropolis; in Hertfordshire, especially in the districts about Brexbourne and Ware, which yield an abundance of the marsh plants that are the favourite food of the caterpillars, they are tolerably common, or were a few years ago. Not only do the moths hover over the flower beds, but they resort to Ivy-mantled walls, intent

on the honey afforded by the greenish blossoms of that late-flowering plant. These insects, popularly designated the "Sword-grasses," come eagerly also to the sugar spread as a trap for moths by the entomologist. The beauty of both is more conspicuous in the larval than in the moth state; still some persons much admire the rich tints of brown displayed on the wings of the Red Sword-grass (*C. vetusta*); the dark and crested thorax is also handsome. *C. exolita* has a certain similarity to its relative, though lighter in colour, and a trifle larger. Both have long and narrow wings, curiously puckered up when the moths are at rest, and giving them rather the aspect of withered leaves. An entomologist of some repute in our day, slightly given to exuberance of language in his earlier writings, tells us that when he first saw the caterpillar of *C. exolita* he "nearly screamed with delight." It was a pity he did not quite scream; and as he has given me an opportunity of outdoing him, I intend to scream when I see one, which is a pleasure yet in store, as circumstances have prevented me as yet from looking after these caterpillars at the right time and in the likely localities. This wonderful caterpillar is usually bright green, with two yellow stripes running from head to tail, and besides these a scarlet stripe edged above and below with white; there are also white spots on most of the segments, some of them surrounded with black. It has been observed feeding on the Creeping Plume Thistle (*Carduus arvensis*), and manages somehow to escape all injury from the sharp prickles of the plant. Other food plants are the Nest-harrow and the Bladder Campion, also the species of Scabious. If disturbed, these caterpillars fall from the plants on which they are feeding, bent in a loose ring. The caterpillars of *C. vetusta* are darker in colour, striped with yellow and black, and particularly distinguished from the preceding by the absence of the scarlet streak, and the presence of a much larger number of black and white dots. This species has been taken on the Docks, on Sedges, and other marsh plants. The chrysalis state lasts but a short time, as the caterpillars of these moths are full-grown in July. Where the ground is moist below they are said to avoid entering it, and undergo their change on the surface. Lastly, it should be added that the moths of both species hibernate, sheltering themselves from the cold and damp of winter in outhouses, barns, &c. They are seldom seen in the spring, when they reappear.—J. R. S. C.

GARDENING AT HOXTON IN OLDEN TIMES.

Hoxton was a favoured home of some of the most noted gardeners in the seventeenth and eighteenth centuries. One of the earliest of these was Gourle, who flourished in the reign of Charles II., and whose name has come down to us in an anagrammatic form attached to the Nectarine he successfully raised—viz., the Elruge. George Ricketts, Pearson, and William Darby are all three mentioned in Gibson's curious account of gardens near London, in December, 1691. Ricketts cultivated more than 100 kinds of Tulips, and he possessed the richest and most complete collection of flowering trees and shrubs in the kingdom; Pearson had the best assortment of Anemones about London, and sold them only to gentlemen; and Darby was known as one of the first in England to cultivate exotic plants. He was succeeded by John Cowell, in whose garden flourished the Cereus and the Glastonbury Thorn. A great American Aloe was bought by Darby when it was twenty years old, and it remained in his garden for forty years, after which it came into Cowell's possession. When it was seventy-two years old it began to open its crown for flowering, and in June, 1729, it flowered magnificently. Large numbers of visitors were drawn to the gardens to see this curiosity.

Another noted Hoxton gardener was Benedict Whitmill; but the most distinguished of the fraternity was Thomas Fairchild, who, by the judicious bequest of the small sum of £25, has succeeded in preventing his name from ever being forgotten. Fairchild united a love of science with the practice of his art, and contributed a paper on the motion of sap in plants to the Royal Society, which was printed in the "Philosophical Transactions." His grounds were afterwards known as Selby's Gardens, and extended from the west end of Ivy Lane to the New North Road. Here he cultivated a vineyard as late as 1722, which is said to have been one of the last in England.

Fairchild, by his will, dated February 21st, 1728, "gave and bequeathed to the trustees of the charity children of Hoxton, and their successors, and the churchwardens of the parish of St. Leonard, Shoreditch, and their successors, the sum of £25,

to be by them placed out at an interest for the payment of 20s. annually, for ever, for the preaching of a sermon in the said church of St. Leonard, Shoreditch, by the lecturer of the said parish, or such other person as the said trustees and churchwardens and their successors should think proper, in the afternoon of the Tuesday in every Whitsun week in each year, on some subject relating to natural history." Among the noted men who have delivered the lecture may be mentioned Dr. Stukely; the Rev. William Jones, of Nayland; the Rev. Samuel Ayseough; and Dr. Wilberforce, when Bishop of Oxford. In 1750 Stukely made a note in his journal of a visit to hear the lecture; and as the passage gives us a picture of the state of the neighbourhood of Hoxton at that date, we will quote it here:—"I went with Dr. Felke and other fellows to Shoreditch, to hear Dr. Denne preach Fairchild's sermon on the Beauties of the Vegetable World. We were entertained by Mr. Whetman, a merchant, at his elegant house by Moorfields, a pleasant place, encompass'd with gardens, stored with all sorts of curious flowers and shrubs, where we spent the day very agreeably, enjoying all the pleasures of the country in town."

Hoxton was once noted for balsamic wells, and a book was written upon them. Sir Philip Skippon, writing to Ray (December 13th, 1667), refers to "the sweet-smelling earth found in Captain Massey's garden, at Hogsden;" and eighteen years afterwards Sir Hans Sloane, in a letter to Ray (November 10th, 1685), gives a full account of the earth, and an analysis of the water found "near the new square at Hogsden." Whatever charms Hoxton may once have possessed, they are all gone now, and yet not many months ago, a London merchant purchased ground there, and built himself a house, which was finished, and fitted up with an elegant conservatory.—(Builder.)

NOTES AND GLEANINGS.

WE are gratified to find that Mr. JAMES SMITH, who has been so long at Exton Park, Rutlandshire, has been appointed to the gardens of the Earl of Dartmouth at Fatchull, near Wolverhampton; and in making this announcement we can but say that a better appointment could not have been made. He is succeeded by Mr. Aherne, from Arundel Castle Gardens.

—THIS season the VINTAGE OF CALIFORNIA will, it is estimated, amount to 10,000,000 gallons, against 4,000,000 in 1873, and 2,500,000 in 1872.

—IN St. Joseph County, Michigan, the YIELD OF PEPPER-MINT is not more than half a crop. It is estimated this year at 8000 lbs. Dry weather is the cause.

STRAWBERRY CULTURE.

I HAVE read a discussion between Dr. Roden and Mr. Douglas; and though on the whole I agree with the former, the latter, I believe, is quite right in saying a number of his plants die-out yearly; and Dr. Roden says what is likely to be true, that the soil with Mr. Douglas is not congenial for these plants, and such I have seen more than once. This district is famous for growing Strawberries, Raspberries, and Gooseberries. Fordell Dea, a place celebrated in Scotland for growing Strawberries, is within three miles of this; and the late Mr. Moffat, whose name is celebrated in Edinburgh for Fordell Dea Strawberries, told me he grew them for fourteen years without renewing them, and then he rested the land one year, manured it, and planted on the same land. But it is a deep heavy soil, and such the Strawberry delights in, while on land the reverse the plants will die-out yearly. I have been acquainted with Strawberries for forty-seven years, and the best I ever saw was at Glamis Castle, Forfar, this year. The sorts were Eclipse and Elton. Keens' Seedling was about past. At Yester, Haddingtonshire, the seat of the Marquis of Tweedale, they were equally good. The soil in both places is very strong and deep, and a little cold. About 1½ lb. would be gathered off one plant, but the plants were nearly 2 feet between each other, and nearly 3 feet between the rows. It was a treat to see the berries hanging round the plants. Within four miles of this there are two hundred acres of Strawberries grown, but at Ormiston three to four crops only are got, when the plants must be cleared off. The soil is lightish, with a gravelly sub-soil. The fruit is sent to Edinburgh, Glasgow, Dundee, and Aberdeen, often in barrels, but for the Edinburgh market it is sent in small round baskets which hold 1½ lb., and sell from 6d. to 1s. each. At 6d. they give a good return if the

crop is good. When planted in April the fruit is by far the largest the following year, but the crop will not be over half of what it will be the second year.—J. ANDERSON, *in situ*, Trenton, N.B.

LIQUORICE.

The root of this plant (*Glycyrrhiza*) has been commended as a pleasant and efficient medicine from the time of Theophrastus, and in every country it has a name meaning either "a sweet root" or "pleasant savour." Its botanical name, *Glycyrrhiza*, is literally "The Sweet Root." Lyte, writing in 1578, seems to have thought it almost the universal medicine, for he says, "Licorice and the juice thereof is a very good and wholesome medicine, fit to assuage paine, to soften, and make whole; very proper and agreeable to the breast, the lungs, the reins, the kidneys and the bladder." It is a native of southern Europe, but especially of Spain, where it is largely cultivated, and its insipid juice exported and known in commerce as "Spanish Licorice." Snow records that "the planting and growing of Licorice began in England about the first year of Elizabeth," 1558. It became so large a produce of the neighbourhood of the town in Yorkshire, the name of which was applied, that the dried juice acquired the name of "Pomewater Cakes."

HEATING BY GAS.

I noticed a short time ago one of your contributors recorded some of his failures for the guidance of others. I would like to communicate my experience in heating a greenhouse by gas, and in so doing my object is to deter others from trying gas for that purpose unless the experimenters have unlimited means, and the cost is quite a secondary consideration.

My house is shaded on three sides by high walls. The only sunny side is the east, and I get very little heat from the sun. The house is a span-roof about 8 feet 4 inches long by 7 feet wide. I have a gas boiler made by one of the best-known makers of gas boilers, and represented as intended to heat 50 to 60 feet of 2-inch piping. The boiler is outside the greenhouse, but joins quite close up to it, and is well covered-in by a small glazed potting-shed entirely protected from the weather. Up each side of the house are four rows of 1-inch piping—in all about 70 feet of 1-inch piping. The gas is conveyed from my kitchen. During the month of June I used gas for heating. In the town in which I live it appears that at 11 o'clock p.m. half the force of gas is turned off at the gasworks. From seven to eleven in the evening I got a very fair heat from it. After eleven the temperature fell very considerably; indeed, the heat was insufficient for the few exotic Ferns I

have. In order to get this temperature I burned (from 7 a.m. to 7 p.m.—that is, in twelve hours) 120 feet of gas. That means 240 feet a-day, or about 1750 feet a-week. I cannot infer from this exactly how much gas would be required to keep a sufficiently high temperature during twenty-four hours, but I should suppose it would require something like 2350 feet to keep my house at a suitable heat for exotic Ferns for a week's time. If so, and I do not think this would be sufficient, with gas at 4s. a thousand, this means 9s. a-week to heat a house 7 feet by 5 feet 4 inches. That the pipes and boiler were properly arranged I have no doubt, having since attached an ordinary coke boiler to the pipes.

If any of your correspondents can give information on this subject I am sure there are many people who would be most happy to learn how to heat their greenhouses at a reasonable cost without the trouble of spring-up. I enclose my address, and should be glad to avail myself of an opportunity of seeing some place heated by gas, and being assured about the cost. But from my experience I would caution others not to try it on the strength of *oukair de rose* advertisements and flattering reports. If any of your readers will communicate through the Journal where a house heated by gas can be seen, with the opportunity of seeing what gas is consumed, I will at some time avail myself of a visit; and if I find it can be done at a moderate cost I will try and spread the information to the extent of my ability, in the confidence that small greenhouses would spring-up by hundreds, and society would be benefited by the information.—A. SNOW.

LATE PEAS.

If I might venture to tack an addendum to Mr. Abbey's notes on Peas, I would name one I recently saw in the celebrated garden of Drumlanrig Castle. It is, Mr. Thomson assured me, the *Pea of Peas* for late work, and even *Ne*

Plus Ultra, good as it is, was set aside for extended plantations of the one I saw doing so well. I never heard the name nor saw the *Pea* before, but was at once arrested by its appearance. It is a tall grower, full of pods and blossom, and will go on producing until frost. As to quality, unless it was very good we may be very certain it would have no place there. Lynn's Black-eyed Marrow is its name. I have not seen it in any list. Mr. Thomson's supply is from Mr. Mathew, Edinburgh. Late Peas are such an important crop, that nothing really and specially good should be permitted to escape notice, and I note this variety because I saw it in such fine form, and because the authority as to its excellent qualities is so reliable.—J. WATSON.

EXTRACTION OF PLANTS.—The Commissioners of Her Majesty's Works and Public Buildings intend to give this

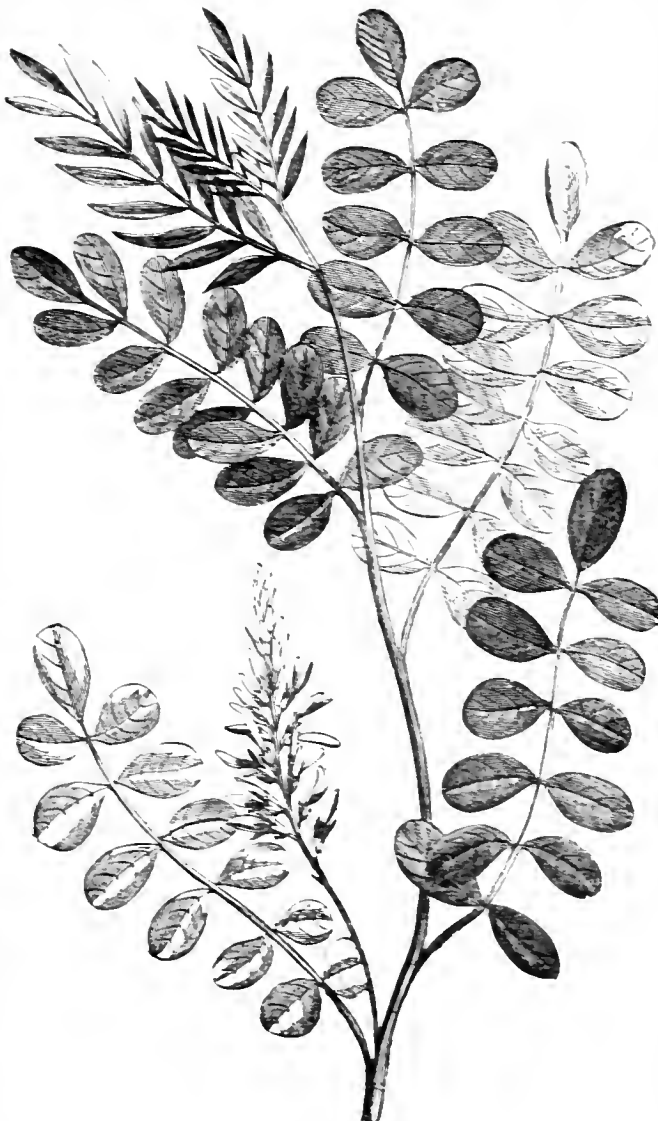


Fig. 11.—Licorice.

autumn, among the working classes and the poor inhabitants of London, the surplus bedding-out plants in Battersea, Hyde, the Regent's, and Victoria Parks, and in the Royal Gardens, Kew, and the Pleasure Gardens, Hampton Court. If the clergy, school committees, and others interested will make application to the Superintendent of the park nearest to their

respective parishes, or to the Director of the Royal Gardens, Kew, or the Superintendent of Hampton Court Gardens, in the cases of persons residing in those neighbourhoods, they will receive early intimation of the number of plants that can be allotted to each applicant, and of the time and manner of their distribution.

THE CARPET AND TAPESTRY BELLS AT HAMPTON COURT.—No. 4.

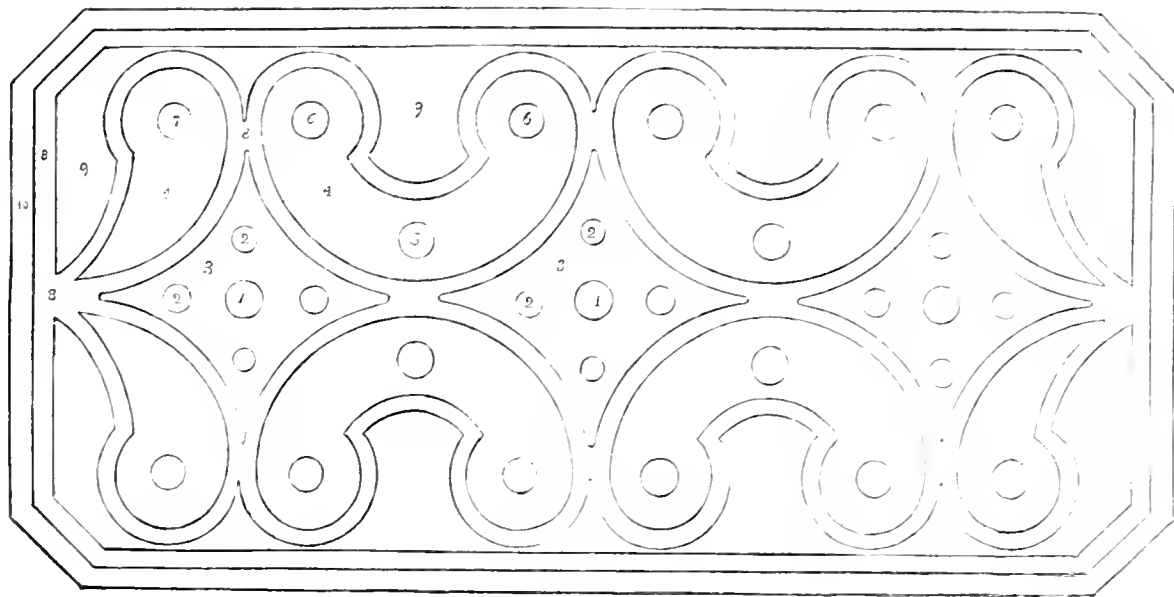


Fig. 92.

- 1, *Agave americana* variegata, young plant.
2, *Echeveria metallica*.
3, *Alternanthera amabilis*.
4, *Lobelia pumila grandiflora*.

- 5, *Cotyledon bracteata*.
6, *Echeveria metallica glauca*.
7, *Cotyledon pulverulenta*.
8, *Sempervivum californicum*.

- 9, *Echeveria secunda glauca*, mixed with
Sedum glaucum.
10, *Echeveria secunda glauca*.

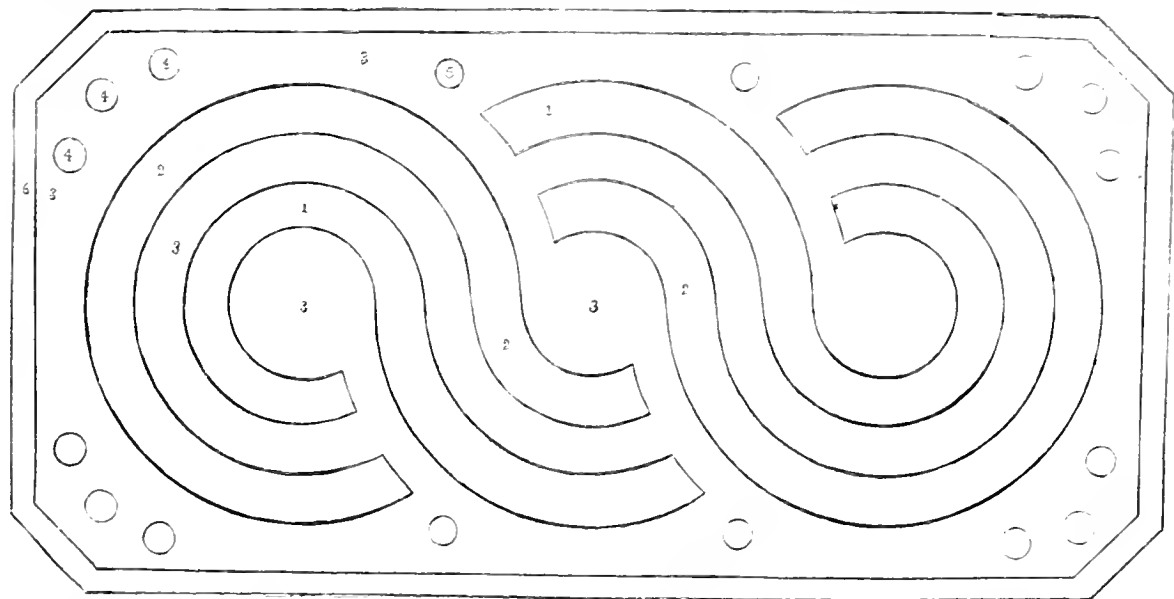


Fig. 93.

- 1, *Cerastium Biebersteini*.
2, *Pyrethrum parthenifolium* Golden Feather.

- 3, *Alternanthera amabilis*.
4, *Echeveria metallica glauca*.

- 5, *Echeveria metallica*.
6, *Echeveria secunda glauca*.

—N. COLE, Kensington Gardens.

SEEDLING BRIARS.

In answer to Mr. R. W. Beachey, the fault is not in the Briar, it is for the want of not having been earthed-up after planting. The seedling Briar is quite as easy to bud as the

Manetti stock; it requires no pruning, except a slight root-pruning when planted.

The Briars are best planted with a dibber, and in rows about

10 to 12 inches apart, flush to the surface, and 30 inches between the rows, and then well earthed-up like Potatoes. They must be kept well earthed-up until the day one is ready to bud them; then carefully unearth them, taking the soil well away from the stock on each side close to the root. Clean the stocks from earth or damp before budding. Bud low, and bind the cotton well round so as to cover up every part of the incision made by the knife; leave the cotton on for three weeks before untying. Be very careful to keep the earth well away from the bud so as to keep the cotton dry, or the buds may probably damp-off. Allow the Briars to remain until the following spring, then cut-off to the eye the same as standards.

Good Briars are the most essential things you have to seek after, and I think it is very doubtful if they can be purchased at the low price mentioned.—J. Mayo, Corn Market Street, Oxford.

NOTES ON VILLA AND SUBURBAN GARDENING.

PERHAPS out of the whole year there is not a month which brings more important work with it than October. The garden ought to be thoroughly overhauled, and any alterations contemplated must be now planned; and in my opinion it is the best of all seasons for planting and root-pruning fruit trees, and, in fact, plants in general may now be safely transplanted. All evergreen shrubs may also be removed, especially those of large dimensions which have been previously prepared. It is a very good plan, where the soil is not well drained or is naturally heavy and wet, to dig out the holes some time before planting, and allow the soil to be exposed to the weather and become somewhat sweetened. Some gardeners insist upon this being done in every case, and as it is a step in the right direction good results may be expected from it. The holes should also be dug up at the bottom fully a foot more in depth than that at which the plant is to be placed, and in filling-in the soil the sides of the hole should be broken down. The principal advantage in this is that it allows the water to pass away, instead of holding it there in the form of a basin to the great injury to the plant; and again, when the roots reach the outside of the hole proper, there is no check to their taking hold of the fresh soil.

It is time now to finish the planting of Winter Greens and Coleworts; and, in fact, everything that has yet a little season before it, should be planted without delay. Earth-up the later crops of Celery at every opportunity during the month in fine weather, and take care in doing so that the earth is first broken up fine, and at every earthing the first lot of earth should be put round with the hand and pressed tightly, none being allowed to go into the heart of the plant, otherwise it will most likely cripple the latter, and by its holding moisture will cause decay. While the weather is mild Celery may be expected to continue growing, therefore do not throw the earth up too high, but at the last earthing it will not matter so much.

Take up the crops of Carrots, Beetroot, Salsafy, Scorzonera, and some of the Parsnips. Do not trim any of the former too closely at the crown, and with Beet the root should not be broken, or both colour and flavour leave it in the cooking. Asparagus beds must now be attended to by cutting off the summer's growth. Clear the beds, cover the roots or crowns with a little manure, and on the top of this put a little soil. Cut down the sides, and let them remain for the winter. Lettuces—plant-out as many as possible in every available corner, and means must be taken to place a quantity of them in frames for early spring planting; the same may be said of Cauliflowers, a few protected in frames are very handy if the winter should prove severe. Last winter, the weather being so mild, they stood remarkably well under walls without protection. Prepare places to receive the earliest crops of Endive, which may be taken up by the root with a little soil adhering to it and kept all the winter. The roots of the Broad-leaved Batavian and of Fraser's Broad-leaved, if preserved in winter and planted again in dry soil, throw up some fine, fresh, tender leaves, which, if blanched the same as Chicory, are very nice, and come in useful when the supply of salading is short. Gather the ripe fruit of Tomatoes, and that which is just begun to change may also be taken off, and if laid in the sun under cover for a few days it soon ripens. The wet cracks the fruit if hanging out of doors too long, and then it rots suddenly.

It is time now that all fruit were housed, therefore gather every sort, and in the most careful manner too, for the slightest bruise at this time tells upon the fruit hereafter, and affects its keeping properties. About here Apples are rather a short crop, and therefore every care must be taken not to spoil them. This month is the time when such tender trees as the Peach are much benefited by the sun in so far as the ripening of the wood goes; therefore any superfluous wood which will hinder the ripening process should be taken out, and that left to form the trees should be assisted towards the above object. I presume that since rain has fallen some of the trees are starting into growth

again; now this should be checked or removed, for it will do no good whatever.

Let us now look into the flower garden; and here I must remind everyone that it is time to take up all plants required for autumn decoration, and to have places prepared for the reception of other stock when the time comes. I allude to such things as old plants of bedding Geraniums which it is desired to preserve, and other things as well: all these may be potted-up with the view of keeping them in as close quarters as possible. In order to be safe with all sorts of pot plants that have been standing out of doors, and the autumn-struck bedding plants also, they should all be now placed under cover. When this is done let every plant be cleaned and the pots washed. Afterwards allow them plenty of air when the weather is favourable, and in order to make sure of health in the plants they should be fumigated with tobacco within a fortnight after admission. As I presume that all propagation except that of Calceolarias is finished, it will be time to prepare a frame for these. I would advise that, first, the frame have a foot of rough manure at the bottom pressed firmly, then 6 inches of common soil, and afterwards about the same of soil finely sifted, and a good quantity of sand mixed with it. Let the whole be thick enough to bring the soil up to within 8 or 9 inches of the glass; level it down, and beat it firm. In this place the cuttings in rows 3 inches apart, water them afterwards, and keep the lights close; and although the cuttings do enjoy the light, they must on no account be allowed to flag from the force of the sun; the object should be to keep the cuttings as fresh as possible, and therefore it will do them good to be occasionally sprinkled with water. After they are rooted air must be given freely; for they ought not to grow much during the dull days of winter. They must be protected from frost, and therefore material for that purpose should be prepared. Doubtless before next month is out the frame will require to be protected round the sides by a lining of leaves or any other rough rubbish to keep out the frost. Herbaceous Calceolarias and Cinerarias must be potted this month; the latter will, no doubt, take their blooming pots, but the former will require another shift or two in November, as they grow very fast at this time of year. Prepare soil for Hyacinths, Tulips, &c., of which next week I will give a list of a few good varieties.—T. RECORD.

DOINGS OF THE LAST AND PRESENT WEEKS.

KITCHEN AND FRUIT GARDEN.

THE season is now upon us when we are driven to our wits' end to continue a supply of the choicer description of vegetables. As usual the later-sown Peas did badly, and this can only be accounted for by the nature of the soil. Light soil on a gravelly subsoil does not suit any crops of vegetables, and Peas succumb to the nature of the soil more readily than any other crop, with the exception of Broccoli, which refuses to grow under any circumstances. It is almost enough to make one envious to see the fine crops of Peas this month in Scotland; but then the soil is rich, well worked, and resting on a clay subsoil. A very little mildew only was present on the plants. The varieties that looked remarkably well were Veitch's Perfection and Bishop's Dwarf. One would have thought that the last-named variety would have been elbowed out of existence by the new introductions. Not so, however: it still boldly held its own against such a fine variety as Perfection. When sowing for the latest crops it is always best to sow the early and late varieties at the same time. It is likewise important to allow sufficient space between the rows, not less than 4 feet—4½ feet would be better—and let the rows run north and south. We remove Cauliflowers to a dark shed as they are ready for use. They will not keep long in a condition for the table under any circumstances. We have stripped the outer leaves off, and cut the others close over with the top of the head; the stalks were left long enough to be inserted to the depth of 3 or 4 inches in damp sand. The other method, which is preferable, is to strip a few of the outer leaves and hang up with the heads downwards. The heads not yet sufficiently advanced to use have the leaves bent or broken over them.

We still under all favourable circumstances keep the hoe at work amongst all growing crops, not only because the weeds grow like magic, but because all vegetables are much benefited by the ground being frequently stirred amongst them, even more so at this season than at any other. Forwarding digging and trenching. It is well to let the ground be thrown up to expose it to the action of the atmosphere; and how much more tidy a garden looks in the winter, when the quarters are all dug, than when they are left as the crops were taken from them and also partly covered with weeds!

GREENHOUSE AND CONSERVATORY.

Removing *Chrysanthemums* into the house. Last year the buds were touched with a rather sharp frost that we had in the first week in October, and the result was a large proportion of malformed flowers on the plants that were grown for exhibition, and the outer petals of many of them were killed outright. Where it is intended to grow flowers for exhibition it is quite

as well not to have too many on one plant. We usually grow two or three plants in one pot, and from three to six flowers on a plant, according to the variety. Some sorts have not the least tendency to become coarse, grow them as strongly as it is possible to grow them. Of this class may be named Antonelli, Mrs. Rundle, Little Harry, Little Pet, Her Majesty, Lady Talford, and all small and medium-sized flowers. Not all the large flowers have a tendency to become coarse; Princess Teck, Pink Perfection, and others of that class, are never coarse. Queen of England, Prince Alfred, Jardin des Plantes, and more especially the Bronze variety of it, White Globe, &c., should be allowed to carry six flowers on a plant. In this, however, as well as setting the buds, experience is the best teacher. For instance, the buds of such sorts as Princess of Wales and Princess Teck should be set about the last week of August or the first week of September; whereas such varieties as Mrs. G. Rundle may be set two weeks later. In tying into position the growths of such Pompon varieties as are intended to make specimen plants, do not tie in closely, which causes the plants to assume an unnatural appearance. Pyramid-trained plants look well, but are not quite so effective as those trained in the bush form. A few standards placed amongst the others serve to brighten the effect. The specimens of the large-flowering varieties will not require any training until the flowers are well advanced, when each flower will require to be trained separately to a neat stick. It has been necessary to dust the plants occasionally for mildew with flowers of sulphur, driving the dust underneath the plants with an appliance made for the purpose.

A few days ago, when writing of the Camellias, it was advised to place some of the plants early in heat and keep them there until the buds were well formed. Such plants will be opening their flower buds now, and will continue to do so for four months. Of course the plants are large. Those plants that have not been forced in any way will just succeed them. Tree Carnations have also been removed from out of doors into the house; the plants tied-up to the sticks and cleaved from green fly. The secret of success in the culture of the Tree Carnations is to pot in good loam, leaf mould, and a little rotted manure. The plants must be kept free from green fly, and should be placed near the glass in a temperature of 50° for a minimum; a rather dry atmosphere suits them best.

Potting the earliest Tulips and Hyacinths; this should have been done early in September if the plants were wanted in flower about Christmas. All those intended for early flowering should be potted in 5-inch pots, and plunged out of doors in some light material free from worms—spent tan, cocoa-nut fibre refuse, leaf mould, or sawdust from any hard-wooded trees. Coal ashes, which have sometimes been recommended, will oftentimes injure the crowns when they begin to push. Potting Roses, some of them being large specimens; others which are new varieties are smaller. The large specimens are potted in the same sized pots after reducing the ball of earth sufficiently to allow of an inch or 1½ inch of fresh compost all round between the roots and the sides of the pot; good turfy loam with a small portion of crushed bones and a little rotted manure is well adapted for them. Smaller plants are potted in a size-larger pot from that in which they had been previously. Ram the compost in pretty firmly, and plunge the pots out of doors the same way as that recommended for Hyacinths. Tea Roses should be kept under glass, as they will not succeed if they are drenched by the autumn rains. Double Italian Tuberoses are also showing flower, and are a very nice feature in the furnishing of the greenhouse at this season. We pot these much in the same way as Hyacinths, and start them into growth in the early summer months by placing the pots in a frame in a gentle bottom heat. Red spider is the inveterate enemy of this plant; it attacks the leaves furiously, and will soon cause the whole plant to look sickly if not washed off.

FLOWER GARDEN.

It is now quite time that all cuttings of zonal Pelargoniums and other such bedding plants as were struck out of doors in boxes were placed in their winter quarters. Even if they are not liable to be destroyed by frost, it is not desirable to have the soil in which they are growing soaked with rain. We have put in all cuttings of such bedding plants as Verbenas, Heliotropes, Lobelia, &c. Calceolarias will be in good time about the end of the present month. Lobelia speciosa is invaluable as a blue bedding plant, and is most readily propagated from seeds, a superior stock being kept up by saving seeds only from the best coloured and best habited plants. It is not yet too late to sow the seeds, though ours were put in about three weeks ago. The double blue variety of *L. speciosa* has been much lauded by a few, and as resolutely condemned by the many. It is certainly not to be depended upon to flower as freely as the single sort. Old plants flower well; spring-struck cuttings have made a miserable figure. No doubt if it would flower as freely as the single sorts it would be a very useful plant. Messrs. Downie, Laird, and Laing have a very fine free-flowering variety at present in their winter garden; it is named Lady McDonald. The flowers

are very large, and said to be almost white in the summer months; at present they are creamy white, edged and suffused with corselean blue.—J. DOUGLAS.

PROVINCIAL HORTICULTURAL EXHIBITIONS.

[SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held. Although we cannot report them fully, we shall readily note anything especially excellent, and we wish for information on such specialities to be sent to us.]

OCTOBER.		NOVEMBER.	
Meldrum	13	Jersey	11
Jersey	14	Cambridgeshire	19
NOVEMBER.		DECEMBER.	
Bury St. Edmunds (Chrysanthemums)	17 and 18	R. H. S. of Ireland	26
		York	1, 2, and 3

TRADE CATALOGUES RECEIVED.

William Paul, Waltham Cross, London, N.—*Rose Catalogue*.
Louis Van Houtte, Ghent, Belgium.—*Catalogue of Azalea indica, Rhododendrons, Hardy Azaleas, &c.*

Davidson & Whitten, White Cross Nurseries, Hereford.—*Catalogue of Selected Roses*.—*Catalogue of Shrubs, Fruit and Forest Trees*.

Groux et Fils, Vallée d'Aulnay, Sceaux (Seine).—*Prix Courant des Arbres Fruitières, Arbres et Arbustes d'Ornement, &c.*

TO CORRESPONDENTS.

* * It is particularly requested that no communication be addressed *privately* to either of the Editors of this Journal. All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only.

We also request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

POTATOES (*T. P., Canterbury*).—There will be collections of Potatoes at the Royal Horticultural Society's Show on November 11th, also at the Cattle Show.

VARIEGATED PLANTAIN (*An Old Subscriber*).—This is a very pretty variegated form of *Plantago major*, and is not at all common, though we have seen it before. If you can get enough of it no doubt it will make a good permanent edging. Do not risk the whole of the plants exposed all the winter, for we once found a beautifully variegated plant of *P. lanceolata*, and thinking it would be perfectly hardy left it out in the open ground, and it perished by the frost. We hope you will have better success. The Forget-me-not is *Myosotis dissitiflora*.

IRENE LINDEN LOSING ITS LEAVES (*A. W.*).—The leaves fell owing to the plants being kept in too cold an atmosphere, and not being well established before winter. To winter fresh they require a temperature of not less than 50°, doing better in one of 55° to 60° at night. In a low temperature they should not have more water than sufficient to keep them fresh, introducing them to heat in spring. Alternantheras can be wintered in a lower temperature than Irene, but not much less than 47°, watering carefully and only as required to keep the plants from shrivelling. They are also the better of heat in spring.

EDGING PLANTS (*Diligent Reader*).—*Santolina incana* and *S. Chamæcyparissus* are not identical. *S. incana* we consider the better for edgings, but both are good. Golden Feather Pyrethrum is better as a golden edging plant than *Arabis lucida variegata*, which does not grow freely nor is so certain as could be wished, but *Stellaria graminea aurea* is more effective than the Golden Pyrethrum; both, however, are excellent. *Dactylis glomerata elegans* differs from *D. glomerata variegata* in being of dwarfier and flatter growth, the latter being strong in growth and subject to become green or lose its variegation. In well-drained light sandy soil it is perfect ly hardy, but in wet heavy soil it is not so, the plants dying off. Dell's Crimson Beet is the dwarfest and best.

WINTERING SEEDLING CINERARIAS (*An Amateur of One Year's Standing*).—The seedling Cinerarias may be wintered in a pit or other place where they are near the glass and safe from frost. They cannot be wintered in a house from which frost is not excluded. They ought to have a temperature of 40° to 45° from fire heat so as to keep them slowly growing. A moist air freely.

CAMELLIA BUDS IN CLUSTERS (*Idem*).—Your Camellias with the buds in large bunches or clusters of seven to ten should be reduced to at most three on a shoot. Reduce the number at once, but gradually at intervals of a few days, removing the smallest first, and carefully, so as not to dislocate the remaining buds.

CAMELLIA BUDS THINNING (*Anxious to Learn*).—Thin the buds to two or three on a shoot, removing the smallest buds. Weak shoots ought not to be allowed more than one bud. The flowers will be larger than were you to leave all the buds, and the plants will grow more vigorously another season. If all are left they would be small; probably a great many would fall, often most. The centre stage will be the most suitable place for them, also for Azaleas. *Cobaea scandens* should not be cut down now, but have only water to keep it fresh, and be pruned in February or March.

HYACINTHS IN GLASSES (*A Lady Amateur*).—Place the bulbs in the glasses after filling the latter with soft water so that the base of the bulb just or barely touches it, always keeping the water to that level, and removing it whenever it becomes impure, as may be known by the ends of the roots looking woolly; then replace with fresh which has been kept overnight in the room with the plants to acquire the same temperature. To keep the water longer sweet, a piece of charcoal about the size of a small walnut may be placed in each glass. Set the glasses in a cool and dark cupboard until the roots have formed, but remove them to the light before the crown has grown an inch, and then give air daily if mild weather, but do not stand the glasses on stone, brick, or iron, but on wood. The plants may be sprinkled overhead every day with rain water until they come into flower, which greatly invigorates them. Avoid frost, wind, and a close room, and keep them off the mantelshelf. A window is the best place. October is the best time to place the bulbs in the glasses.

AUGA REPTANS PURPUREA PROPAGATION (*C. P. R.*).—It has dark purple bronze foliage, and forms a good contrast to Golden Feather Pyrethrum, and is best in spring, being very valuable for spring bedding. It is propagated by cuttings of two joints and the growing point inserted in sandy soil, kept moist, and shaded from sun; or they may in summer, or even now, be put in on a north border, but would root at this season more freely in a frame. Plants for spring bedding ought to be struck early in summer, and should be nice plants by autumn. It is perfectly hardy.

GARDENIA RADICANS IN WINTER (*A Young Gardener*).—The soil should be kept moist through the winter, but the plant needs much less water at that season than when growing freely; enough, however, should be given to keep the foliage from flagging. Being in a warm house, you will not need to place the plant in extra heat to produce flowers now and in succession. It is a stove plant. You would gain nothing by placing it in greater heat, though you would certainly insure the expansion of the larger buds, and the remaining buds would be needlessly excited. Keep it, therefore, in a temperature of 60° to 65°. An increase of heat in spring, with bottom heat and a moist atmosphere, would be advantageous.

EMPHYLLUM CULTURE (*Idem*).—They should have enough water to keep the soil moist, but not sodden, and after flowering they should have no more than sufficient to keep the stems plump until they are started into growth in spring, then water freely and keep moist. They will flower well in a temperature of 45°, but may be forwarded in a stove. The flowers endure longer in a greenhouse than in a stove. A greenhouse is most suitable for them, with extra heat when making new growth.

SENSITIVE PLANT IN SITTING-ROOM WINDOW (*Miss Cattle*).—You have begun at the wrong end of the year, the Sensitive Plant being an annual. It is not likely that you will in a sitting-room window succeed in wintering the plants, but you may pot them off singly in 3-inch pots at once, draining well, using a compost of sandy loam, leaf soil, and sandy peat in equal parts, with a sixth of silver sand. Water very carefully, giving only enough to keep the plants fresh. It is possible they may survive the winter, and if so, you may shift them into 6-inch pots when they have filled the 3-inch pots with roots; water more freely as the growth progresses, and abundantly when growing freely. It would have been better had the seed been sown in a hotbed in spring, the plants potted off when about an inch high and returned to the hotbed, shifting into 6-inch pots when the 3-inch pots were full of roots, not removing them to the sitting-room until the plants were well established in the 6-inch pots.

CAMELLIA BUDS NOT OPENING (*Wordsley*).—The Camellia buds you sent us are in no way imperfect, the bud being hollow in the centre solely in consequence of the outer petals being more advanced than the central and smaller ones. The flowers would probably open more freely in a higher temperature, say of 55° from fire heat. Give them time.

WINTERING BEDDING GERANIUMS (*E. R. M.*).—You do not say what convenience you have for wintering them, therefore we may not meet your case by our reply. Take up the plants early in this month, or after the first frost which cuts off or blackens the buds, and strip off all the large leaves—in fact, all the leaves that are larger than a shilling. Cut back any straggling about to a young one, trim the roots a little and pot singly in 4-inch pots, or such a size as will hold the tubers, using sandy fibrous loam with a third of leaf soil and a sixth of sand. Place in a light airy position in a house with a temperature from fire heat of 40° to 45°, and water to keep the soil just moist, and when they are growing freely water more copiously. Any irregularities of growth may be removed by cutting-in the plants in March, and if put into 6-inch pots then they will be strong by May.

PROPAGATING ZONAL GERANIUMS (*Beginner*).—Shift the plants at once into 4-inch pots, and place them on a shelf about 18 inches from the glass in the Cucurbit house. When they have taken to the fresh soil they may probably have shoots for cuttings. If they have, insert the shoots singly in small pots, and strike them in bottom heat. They will soon root, but be careful not to keep them too moist, otherwise they may damp. The parent plants should be well but not excessively watered, and when the pots fill with roots shift into 6-inch pots, and on becoming again established examine them for cuttings, and shift into larger pots. When you can get a cutting with two joints and the growing point, leaving three joints on the plant for future growth, take off the cutting. This remark applies to the old as well as young plants, and by following this treatment through the winter, shifting the plants into larger pots as the growth requires, and taking cuttings as they present themselves, you will have a number of good plants by May. Cuttings may be taken up to the close of March, or even early in April. Do not overpot, nor, on the other hand, allow them to become pot-bound, and water carefully.

EDGING PLANTS FOR BORDER ON LAWN (*M. H. M.*).—For a permanent edging to a border on grass, Ivies of the green kinds would not be suitable, as they would not contrast unless you had the border raised, and then they would answer admirably. The small-leaved kinds are most suitable, as *Hedera Donoliensis* and *H. taurica*. The best silver is *H. Helix elegans*. *H. Helix folio-variegata* is also good. The edging may be raised with stones, over which the Ivies will run and cling to, and soon form a close edging. The *Euonymus radicans variegatus*, with green leaves broadly margined with white or silver, is excellent for edging; *E. flavescentis*, with leaves of a deep chrome yellow, is also good, and might with cutting be kept to the height you require, it being of free growth, but compact. The variegated *Thymes* are desirable edging plants: one variegated yellow, *Thymus citriodorus aureo-margitatus*; and the other white, *T. variegatus*.

EVERGREEN SCREENS FOR SHELTER (*Idem*).—Ivy screens are not equal to those of Yew, Holly, or Landri. For an outer screen Beech and Hornbeam, also Thorn hedges are better, because quicker-growing than Holly or Yew,

which are excellent nevertheless. Evergreen Privet is also good as a screen, and quick-growing. *Arbutus* is desirable as a screen for separating grounds; but the best evergreens are Yew, Holly, and Privet, and the Beech and Thorn among deciduous trees. If you had Ivy you would need a strong rustic fence or larch stakes for the Ivy to cling to, and when the woodwork decayed, as it would do in a few years, the wind would blow it down, and the Ivy along with it.

FERN FOR STAND IN NORTH WINDOW (*L. C.*).—It is not possible to determine the name of a Fern from a single division of the fronds, but we think it is *Cyrtomium falcatum*, which is nearly if not quite hardy, and as such would be suitable for a stand in a north window. *Asplenium flabellifolium* is a charming small Fern for suspending in glass cases, but in the position you name it would not succeed in winter. It requires to be kept from frost.

ELECTION OF ROSES (*Amateur, South of Ireland*).—On referring to this week's number, and the preceding two, you will see how Mr. Hinton has carried out the election and its results.

BOXES FOR EXHIBITING ROSES (*E. F. W.*).—The following are the dimensions of the boxes for exhibiting Roses:—

	Length.	Breadth.	Height.
For 24 Roses ..	4 ft. ..	1 ft 6 ins. ..	6 ins. back, 4 ins. front.
" 18 ..	3 ft. ..	" ditto ..	" ditto
" 12 ..	2 ft. 2 ins. ..	" ditto ..	" ditto
" 6 ..	1 ft. 6 ins. ..	" ditto ..	" ditto

Two 24-boxes are constantly used for exhibiting forty-eight trusses, and could not be objected to unless one box were specified in the schedule.

YELLOW ROSE (*M. H. B.*).—The petals fell when the box was opened; but from the shape of the petals, scent, and foliage, we think it is the old Tea *Sulphurea odorata*, sometimes called *Crystallina*.

PLANTING ROSES ON OWN ROOTS (*Idem*).—As soon as received they should have all weak growths pruned short to two or three eyes, and the stronger shortened to five or six. Cloth of Gold and Marchal Niel on Briar stocks should have weakly shoots cut out altogether, and all strong ones trained in to full length. The above are to be trained against a wall. Of vigorous climbers to be similarly trained, shorten the very strongest growths slightly. *Blairi No. 2* does not endure cutting. *Gloire de Dijon* and *Devoniensis* may be shortened more, but as a rule fasten plenty of wood in, and encourage strong growth.

VINES AGAINST END OF HOUSE (*F. I.*).—Plant the Vines a yard apart 18 inches from each end, and the rods we should take upright, and cut them back to 3 feet, depressing the canes in spring so as to ensure their eyes breaking regularly. When these have broken disbud so as to leave the shoots at 18 inches apart on both sides of the rod, taking the first at about 1 foot from the soil. You will require to retain one shoot as a leader in addition to the side shoots. Vines trained upright always break much more strongly at top than bottom, hence it is good practice to train the rods in the serpentine form, and originate the shoots from the horizontal parts at 18 inches apart, that distance being left between one curve and the other next above it.

GRAPES DISEASED (*R. S.*).—The centre stalk of each bunch is severely shanked. Apply tepid weak manure water copiously to the roots of the Vines bearing the shanked bunches. It will not cure them, but it will check other bunches being affected. Remove the soil of the border in the autumn, and replace it with good loam mixed with leaf mould and limy rubbish. (*Green*).—The above applies to your case; try the treatment we have recommended, and spare the Vine another year.

GRAPES CRACKING (*E. M. Dublin*).—They are severely mildewed, and that induced cracking. The berries are small, and indicate that the soil is not suitable. When the crop is off and the leaves fallen the whole house and Vines should be thoroughly painted with a mixture of lime and flowers of sulphur, and the border enriched with a mixture of decayed leaves and limy rubbish.

QUINCE UNFRUITFUL (*Juliah*).—We fear that the cause of the small production of your tree is frost in spring; and if the sun shone early in the day on the blossom after a frosty night, the sunny situation would increase instead of diminishing the injury. The quince thrives best in a somewhat strong and rather moist soil, and moisture at the roots would benefit it in your ground.

PLYM TREES UNFRUITFUL (*Amateur*).—The trees would be best lifted as soon as the leaves turn yellow and begin to fall. Take out a trench about 3 feet from the stem, cutting off all roots, and lift the trees with the roots in the space towards the stem, cutting off any roots that go down. After putting some soil under, replace the tree and fill up, treading the ground firmly. The trees should be kept rather high, the uppermost roots about 6 inches above the surrounding ground level, and cover them about 3 inches deep with fresh soil, making firm, and mulching over the roots with littery manure. It is not desirable to defer the pruning until spring with a view to protect the blossom from frost. If summer pruning were properly attended to, very little winter pruning would be required.

PLANTING SHALLOTS (*Idem*).—In a light soil you may plant Shallots in November and cover them with a-bes, which keep them from being acted on by frost. If the soil is heavy, February planting is preferable.

RED CURRANTS (*Idem*).—A selection of six will almost include the whole of the varieties of Currant:—Houghton Castle or Victoria is the best, but rather late; *La Hative* is very fine and early; *La Versailles*, being excellent. These will give you all you want; but to make six—Red Dutch, Cherry, and Knight's Large.

SPLITTING THE STEM OF MOORPARK APRICOT (*H. S. N.*).—By making an incision through the bark down to the wood and the length of the stem you would probably cause gum to issue, and disease of the heart to set in. What your tree wants is more support, which you may afford by copious waterings of liquid manure during growth. From the gravel path it is likely the soil is dry and poor. To allow of water entering, holes may be made in the walk about 9 inches apart, and through the gravel with a crowbar. Guano, 1 lb. to twenty gallons of water, would be a good application every fortnight in dry weather, from the time the fruit is the size of a horse bean until it is ripe.

FUNGUSES (*L. E., Diss.*).—The long-stalked fungus enclosed is the *Cham-pignon*, and edible; the other specimen was a mere decomposing mass not recognisable. (*G. S.*).—If it was left under your initials we are afraid we never received it.

GROUND BARE BENEATH CEDAR TREE (*Peter*).—We presume it is a Cedar of Lebanon, and has a considerable spread of branches, which causes the grass not to grow, the ground being poor and dry. Any growth other than

grass would spoil its appearance, and as grass does not grow it would be too dry for Ivy, unless it were planted outside the spread of the branches, so that its roots would have moisture, the shoots being trained inwards. *Vine* minor, if planted about a foot apart, would give you a close green covering, and would not injure the tree if care were taken in planting. We should make another effort to secure grass. Loosen the surface with a fork now, not deeply—an inch or two will do—give a top-dressing an inch thick of rich compost, and sow over it *Poa nemoralis* sempervirens and *Festuca duranensis* rather thickly. Sow at once, roll well, and after rolling water thoroughly through a rose watering-pot. We think you will have a green surface soon.

GARDEN SHORT OF MANURE (S. B.).—Salt would not be a bad application in spring, sowing the whole garden over in March at the rate of twenty bushels per acre. Nitrate of soda is also good; apply it at the rate of 1 lb. per square rod—3¼ square yards. It may also be applied in a liquid state, and at the rate of 1 lb. to twelve gallons of water. Guano is also very serviceable, applying 2 to 3 lbs. per rod, or if in a liquid state 1 lb. to twenty gallons of water. We cannot recommend dealers, but you will see where such things may be had from our advertising column. Solid manure, especially cow dung, would be much more serviceable for your soil than those named.

SEWAGE (H. L. E.).—Sewery drainage is worth preserving, and may be applied to kitchen-garden crops at any time of their growth. The name of the Pear is mis-spelt; it is *Doyenne d'Eté*. Dr. Hogg's "Fruit Manual" says it is "a most delicious Pear; one of the best; ripe in December."

HOT-WATER PIPES (E. W.).—Your two 3-inch pipes the length of the house and across one end, or part of the end, would give you in a house 10 feet wide and 7 feet high in the centre, a temperature of 45° to 50° in frosty weather, and not much less in severe weather, the pipes being kept hot. In the most severe weather they will be ample to exclude frost.

PIPING TO HEAT STOVE (A Devonshire Subscriber).—To heat your stove satisfactorily you will require four rows of 4-inch piping—i.e., two flow and two return pipes along both sides and the ends, or omitting 4 feet for each doorway, you will require about 384 feet; and to heat the water you will need a boiler, taking an improved form of saddle in preference to the old one (such being more powerful and economical of fuel, 24 inches long, or the work would be done better by one of 20 inches and 18 inches wide).

HEATING GREENHOUSE (Biceps).—A gas stove would be practically useless in a house the length of yours, and a stove without a flue would be very injurious to plants. A gas-heated boiler placed at one end, and with a funnel to carry off the fumes of the burning gas, which should pass into the external air, and with two 1-inch pipes along one side of the house, and the same number returning to the boiler—viz., two flow and two return 1-inch pipes, would give you all the heat you require to keep out frost. You would need to write to those advertising in our columns, stating what length of piping you would need, and asking for price of boiler to heat, or they would probably state price of the apparatus complete. Your house getting little sun would be admirably suited for *Camellias*, especially the wall, if you could have a border to plant them in, or both walls could be covered with them. The slight in winter would be grand.

THRIPS ON MYRTLES AND OTHER PLANTS (A. S. B.).—The leaves were destroyed by thrips, which you will find especially on the under surface of the leaves. The best remedy for the Myrtles would be to sponge the leaves and stems with soft soap, 4 ozs. to the gallon of water, and all other smooth-leaved plants may be treated in the same way; but those with soft and hairy leaves, as *Geraniums* and *Ferns*, should not be sponged in this way, but may be dipped in tobacco water, one gallon of tobacco juice being diluted with six of water. Plants so badly infested as yours are will lose their leaves. In the course of a fortnight after the application examine the plants, and if any insects are seen fill the house with tobacco smoke so that a plant cannot be seen from the outside, shutting up closely. Being a conservatory it is likely the fumigation may be objectionable, therefore employ the soap solution and the tobacco water, syringing the plants about three hours after the application on the under as well as the upper surface of the leaves. To keep thrips down in future maintain a moist atmosphere, syringing morning and evening in summer, and occasionally in winter.

NAMES OF FRUITS (T. F.).—1, *Souvenir du Congrès*; 2, *Beurre Superfin*. (*A Fruit-Grower*).—1, *Bleheim Pippin*; 2, *Franklin's Golden Pippin*; 3, *Trumpington*. (*W. J. S.*).—1, *Bonne D'Inde*; 2, *Verulam*; 3, *Beurre Bosc*; 4, *Corish Gilliflower*; 5, *Calville Mahague*. (*P. Q.*).—Your Pear is not *Grey Doyenne*, but *Fondante d'Automne*.

NAMES OF PLANTS (H. H. W.).—The tiny plant you sent was shrivelled and dry. It was impossible to make anything of it. You should always wrap specimens in damp material. (*Co. Antrim*).—1, *Fraxinea ramosa*, *Hook.*; 2, *Nepeta mollisefolia*. (*L. E. P.*)—*Tecoma Marum*, *L.* (*C. B. Marsden*).—*Cassia Sophora*, *L. No.* (*New Forest*).—*Polygonum multiflorum*. (*J. G.*).—*Nicotiana glauca* or *N. Langsdorffii*, specimen very bad. (*E. J.*).—1, *Pteris caerulea alb-fluata*; 2, *P. tremula*; 3, *P. heterophylla*; 4, *Asplenium angulare*; 5, *Asplenium obtusatum*; 6, *Blechnum* or *Lomaria* sp. (*T. B. G.*).—1, *Asplenium (Dore)* *Bolangeri*; 2, *Gymnogramma tartarea*; 5, *G. chrysophylla*; 6, *G. cal melanos*; 3, *Pteris arguta*? 4, *P. tremula*. (*J. C.*).—1, *Cystopteris fragilis*; 2, *Polypodium (Phymatodes) scandens* or a near ally; 3, *Davallia novae-zelandiae*.

POULTRY, BEE, AND PIGEON CHRONICLE.

ALTRINCHAM POULTRY SHOW.

This was a complete success as regards the number of entries, the weather, and the attendance of visitors. The pens used for the poultry were square wooden coops with wire fronts, but we regret to have to record the fact that we saw neither food nor water given to the birds, except by those exhibitors who attended to their own stock; and the Show lasting two days, we fear that many birds would arrive at home in an awful plight.

Turkeys and aquatic birds headed the list, Mr. Walker winning nine prizes in four classes, and being beaten for first only in the case of the *Aylesbury Ducks*, and here only with a most extraordinary pen. Of *Spanish* there were but four entries for six prizes, and the birds nothing of note. In *Black Red Game* cockerels Mr. Platt won with a good bird, the second being good

but sadly oversown, and the third very poor. The three winning pullets were also very good. The first in *Brown Red* cockerels was a bird with a combination of good qualities, which it is difficult to get in individual specimens; a very dark, long, strong head and black eye combined with the finest plumage. Second was the *Farnworth* cup bird, and the third of but moderate quality. The pullets were of rare quality. In the next a *Pile* cockerel was first, a moderate *Duckwing* second, and a good *Pile* third; while the only other bird was a *White* one, value 2s. 6d., but which served to set off the quality of the rest. In pullets the first *Duckwing*, rather light on the breast, was otherwise good; the third, *Pile*, much too light, while the second was good. *Dorking* cockerels were good, except the third, which had not good feet; and the pullets were poor. *Cochin*, *Buff* and *Cinnamon*—(by the way, where are the *Cinnamon* now?)—cockerels produced some grand birds, the champions only competing; but in pullets the entries were more numerous, Mr. Crabtree here also taking both first and second prizes, the third, however, being in our opinion too meanly. In the following cockerel class *Partridge* won the prizes, and in pullets *Partridge* were first and second, and *White* third.

The entries in *Brahmas* were very good. In cockerels Mr. Lingwood was to the front; the second-prize bird, a very good one, was in the catalogue at £5 5s. only; while in pullets Mr. Watts was first, but we thought Mr. Walker's second quite equal, to say the least. *Hamburgs* were mixed classes, and the competition only poor in consequence. In the class for *French* fowls, cockerels, all the winners were *Houdans*, as also in the pullets, which were very good. In *Polands* the first and second were *Golden*, and third *White-crested Blacks*, all being good. *Game Bantams* made a grand display, the quality being very high indeed; and it is seldom we see so many birds noticed in a section, the *Black Red* cockerels being all noticed, the first a grand bird in all points, second very small, and third of rare colour and style. In pullets of that variety Mr. Hall showed a beautiful specimen. The third was really good, but we thought the highly commended bird superior to the second. Two classes were provided for *Brown Reds*, the first and second cockerels being perfect; the third, a very stylish bird, was rather light in colour. In pullets Mr. Hartley showed three grand birds, winning the first and second prizes and a high commendation. The third was grand in all points except the head, which was rather short. In Any other variety of cockerels a small neat *Duckwing* was first, a good *Pile* second, and a very handsome *Duckwing* third; and in pullets Mr. Hall showed a *Pile* of great beauty, a *Duckwing* of rare colour being second, a *Pile* also being third. A cup for the best pen of *Bantams* of Any other variety was won by a fine laced pen of the old colour of *Silver Sebrights*, the second and third being *Black*.

Pigeons were a capital collection, shown partly in bell-shaped and partly in square wooden coops; the cup for the first seven classes going to a *Dan Carrier*, and the cup going to capital *English Owls*, the awards being generally well made.

There was a small show of *Rabbits*, but we failed to get particulars of the measurements.

We published the prize list last week.

AYLESBURY POULTRY SHOW.

(From a Correspondent.)

This Show was held on September 23rd in the Meat Market, a building most admirably suited for a show, it being roomy, well ventilated, and brilliantly light. The pens were *Billet's*, and they were ranged round the whole building, and placed on the same level, consequently all the birds could be most beautifully seen. The attendance was good, and the cards were quickly put up. Mr. Hewitt judged. It was a Show everyone could enjoy, for all the attendants were courteous; and Mr. Fowler, whose name is a household word in all poultry matters, here in his own town was most hospitable. We should have liked to have seen more entries, and a double tier of pens consequently necessary; but there were four more shows being held at other places, and no one can be at more than one place at once.

We have always been taught our old friends the *Dorkings* came first, and very good they were. The cup cock was simply superb; he had mounted-out as clean as possible, and was in grand condition. The pullet with him was also good. The second-prize birds were chickens; the cockerel very dark, but his comb was not very good, still he looked well in the pen and stood like a man. His pullet was a nice one, though she looked a little set. The third went to most exquisite *Silver-Greys*; the cockerel quite superb in colour and legs, the pullet very large, and promising to be a tremendous hen. A fair pen of *Whites* (*William*) were highly commended. *Brahmas* came next, *Dark* and *Light* together. Next year, Mr. Fell, you must separate these varieties. *Darks* won the cup. These were in glorious condition, and so young, yet they were immense for their age. The pullet was of lovely colour, she was grandly pencilled, and her comb very good; the cockerel honestly was

rather too mottled on the breast and thighs to please us, and we think the pullet won the cup; but they were a lovely pen, and we liked them on the whole extremely. The second-prize cockerel was a nice bird, but the pullet too light; had she been well pencilled this pair would have run the first-prize pen closely for the cup. A good pen or two of Lights were highly commended. *Spanish* were a very fair lot—nine pens. A good pen of old birds won the cup; second and third were chickens. The cockerel in the latter pen was good, and will be better still every week if he go on as he has done since we saw him last. The *Cochin* classes were wonderful—Buffs, Partridge, and White. We mentioned in a former report that Stoke Park had some good birds coming out, and we were not wrong. Lady Gwydyr won the cup with a capital pair. They were not so large as those she won the Aylesbury cup with last year, but then they were not so old. The pullet was of exquisite colour and of fine shape; the cockerel good in all respects. The second and third should, we think, have changed places; the third were also of such fine colour and shape. The second were old birds; the hen did not look very fresh; the cock a good bird. Mrs. Tindal had two nice pens highly commended, but they were old cocks, and not well through the moult. Partridge Cochins were admirable. The first-prize pen of chickens were of fine colour and good shape; the second were only fair, the cockerel best; the third went to huge undeveloped chickens. The cockerel must make an immense bird, and one which will win. White Cochins were a large class. Mr. Woodgate cleared the prizes with three pens of chickens, good in combs and colour. A pen of old birds of Mr. Bloodworth were good, and Mrs. Tindal had a nice very young pair of chickens. *Game* were all in one class. A very good pair of Black Red chickens won the cup; second good Brown Reds; the third were Duckwings. The cockerel in this pen was of splendid colour; he wants dubbing, and then will want a lot of beating. *French* mustered well. *Crève* first; *La Flèche*, out of condition, second. A good pair of *Crève* chickens (Tindal) were most promising. *Hamburghs* were most creditable. The *Spangled* were much the best. So good were the second-prize Golden, that before the awards were up we asked the exhibitor to have us to tea, the pen seemed safe for the cup, which was a cream-jug in this instance; but Silvers won it, and this pen was placed second. Certainly the Silvers were very grand, and it must have been close. Third also good.

Bantams (*Game*) were numerous. We did not care for the first-prize pen; the cock's wings almost touched the floor of the pen, but the plumage was fair. Nice *Piles* were second; the third went to Duckwings; the hen good, the cock poor in colour. A good pen of Duckwings (Adams) seemed worthy of more than *h.c.* In the Variety Bantam class poor Pekins were first; the cock good in colour, but the hen very pale and dirty, and poorly feathered. Second, Silver-laced; these birds were genuine silver colour, and should, we thought, have been near first. Third, nice Gold-laced. Two good pens of Blacks (Leno and Mayo) were highly commended.

The *Ducks* were, of course, grand. Everyone expects to see something wonderful at Aylesbury in the Duck way, and they were not disappointed this year. We may safely say we never saw such a drake as the cup one was; the Duck, too, grand. Second immense also; third very large and good too. In Rouens Mr. Evans cleared the prizes with wonderful specimens, good in colour and size. In Variety Ducks *Vidnatas* won first; a nice pen; *Cayugas* second. We were indeed glad to see this useful hardy breed at last recognised; the colour bids fair to equal their East Indian—may we say?—relations. American breeds had a class and a cup; this went to a good pair of White Leghorns, Brown Leghorns taking second. We do not care for this colour, they look so common. A nice pair of Plymouth Rocks were highly commended. We hope societies will follow Aylesbury and imitate Oxford in giving these breeds a class.

Lastly, but not at all least, came the Variety class. We were amazed at Aylesbury, of all places, where Mr. Fowler grows his huge specimens, to find Turkeys and Geese in this refuge. It seems hard lines, too, for a Silky or a Poland to be side by side with a gander. This class was splendid. First went to Black *Hamburghs*; the hen in this pen was like a mirror, such lustre we never saw; we almost think this was the best hen in the Show. Second went to huge Geese; third to White *Silkie*s, the pullet with a splendid crest. Mr. Taylor's hens in his pens of *Polands* were quite pictures, but the cocks not sufficiently through the moult. A good pen of Black *Cochins* (Darby) was highly commended, the hen, which we have so often noticed before, a wonder. A Selling class ended the lot. Poor White *Cochins* were first, good *Aylesburys* second, and Silver *Polands* third. We hope next year the Show may be as good in quality and ten times better in quantity.

TEST FOR COLOURING MATTER IN WINE.—M. De Cherville gives the following test for the detection of false colouring matter in wine:—Pour into a glass a small quantity of the wine under examination, and dissolve in it a morsel of potassa. If there is no deposit, and if the wine takes a greenish tint, it has not been

artificially coloured. If a violet deposit be formed, the wine has been coloured with elder berries or mulberries. If the deposit is red, beetroot or peach wood has been used; and if violet red, logwood. If the sediment is violet blue, privet berries have been employed; and if a bright violet, litmus.—(*Medico-Pharmaceutical Abstract and Review*.)

THE POULTRY-KEEPER.—No. 22.

COCHIN-CHINA OR SHANGHAI.

PARTRIDGE VARIETY.—HEN.

THE hen of the Partridge variety is regularly marked with dashes of dark black, or mixed with grey, and on a buff ground more or less dark. Each feather has marks which, though different, are very analogous on each part.

The general appearance is a mixture of colours not separable at first sight, but the markings can be distinguished by examining each feather. The hackle feathers (*fig. 94*) are nearly covered

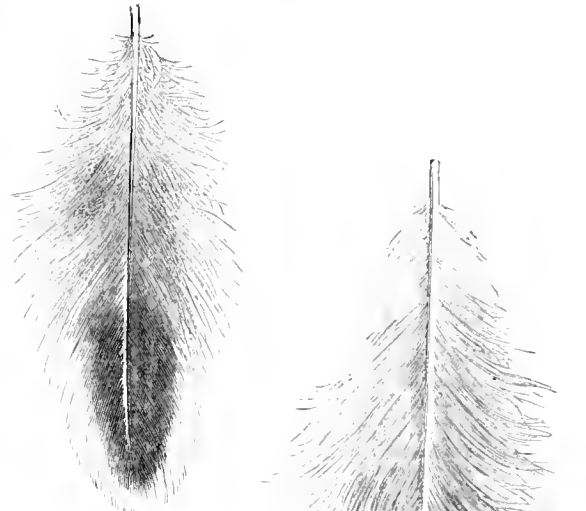


Fig. 94.—Hackle Feather.

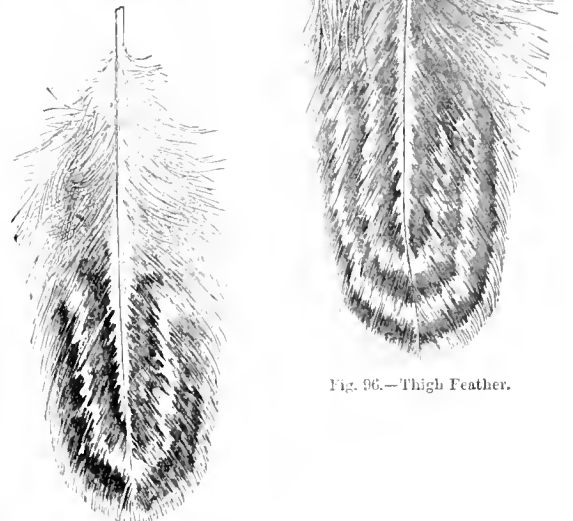


Fig. 95.—Wing Covert Feather.

with black, occupying the middle part from one end to the other, and to which the borders of the feather form a buff edging. The hack feathers—those forming the tail coverts, those of the thighs and the breast, and those which surround the stern, are nearly similar (*fig. 96*). They have three dark-grey demicircular bands on a buff ground. They only vary slightly in the details or in the proportions, and the bands fade towards the fluffy part and towards the under parts of the body. The front feathers of the neck are buff and nearly whole-coloured; those of the abdomen, the sides, the inside of the thighs, and those of the feet are yellow, mingled with light grey. The covert

Fig. 96.—Thigh Feather.

feathers of the wings (fig. 95) have peculiar markings—two semi-elliptical bands nearly black on a buff ground. The large wing feathers (fig. 97), especially of its lower part, are not visible when the wing is closed; they are blackish brown, and in the

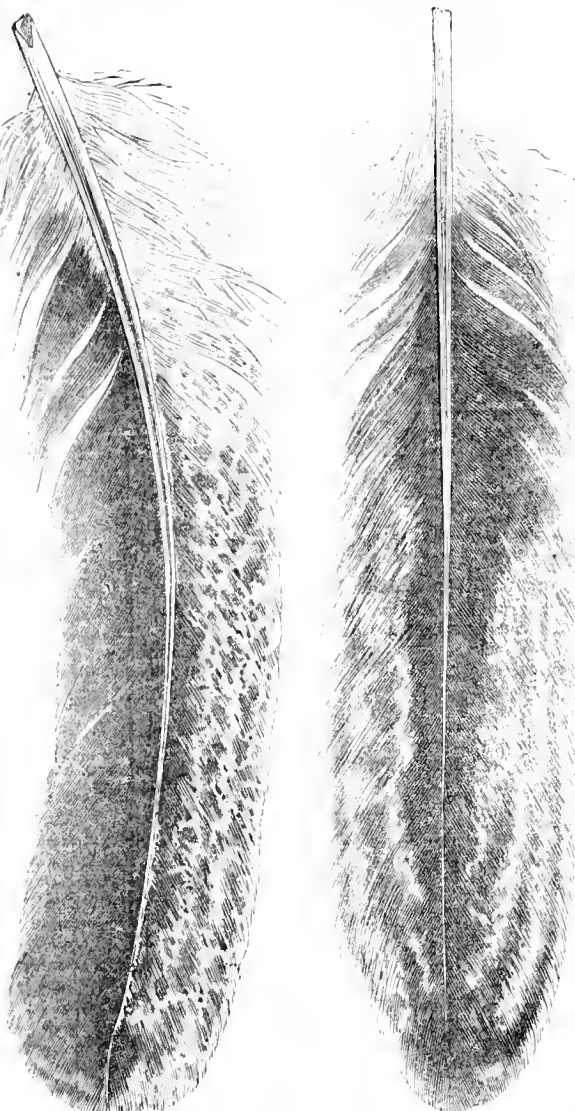


Fig. 97.—Large Wing Feather.

Fig. 98.—Large Tail Feather.

visible half marked like the rest of the plumage. The large tail feathers (fig. 98), though very dark, have the same characteristic marks.

MANUFACTORY'S POISONOUS SUBLIMATIONS.

THE *Irish Farmers' Gazette* states that "One of the most extraordinary cases of poisoning of cattle and poultry that have ever been known has taken place within the last few days at the hamlet of Swinford, near Bath. For many years a considerable business in metal-smelting has been carried on in the neighbourhood, and in the centre of the hamlet stands the lead mill of Messrs. Weston & Son, of Bristol. Within the past few months a sediment, resembling hoar frost, has been noticed to settle upon the land within a radius of a mile of the mill; but the nuisance has been more intense on the land closer to it. Messrs. Freeman, Taylor, and Davis have each lost scores of hens, Geese, Galenas, and Ducks from eating the grass and drinking the water in the neighbourhood, the deadly sediment having settled upon them. Mr. Davis has been the greatest loser, as, in addition to poultry, three of his most valuable cows have, he is satisfied, died from the same cause. In both the case of the poultry and the cattle the symptoms have been those of paralysis. The birds first lose the use of their wings and

legs, and the cattle are rendered unable to move, and after frothing at the mouth and lying, some in the greatest agony, become at times almost frantic, having by this time been reduced to a condition of the utmost attenuation. Mr. Davis has submitted the intestines of the fowls to Mr. Stoddart, the analyst for the county of Somerset, and his certificate states that there was sufficient arsenic in the intestines of each bird to kill a dozen fowls. Complaints have been made to the local sanitary authorities; but, after considering the matter, they have decided they are unable to interfere."

We think that no such decision can have been arrived at. If animals are killed by the exhalations, human health and life must be deteriorated. In other districts we know that deleterious exhalations have been removed by force of law.

NOTTINGHAM POULTRY SHOW.

This was held from the 2nd to the 6th inst., and was highly successful in point of entries, especially in the Pigeon classes, the total number amounting to considerably more than seven hundred. Annexed is the list of awards.

GAME (Black or Brown-breasted Reds).—Cock or Cockerel.—1, J. Chesters, Newark. 2, H. E. Martin, Souththorpe. 3, G. H. Fitzherbert, Sevenoaks. 4, H. Smith, Maiton. *vhe*, A. Cameron, Epworth, Rotherham. *he*, Earl of Loudoun, Donnington Park; A. Cameron; J. Chesters. *Hen or Pullet*.—1, Earl of Loudoun. 2, G. H. Fitzherbert. 3, J. Chesters. 4, H. Beldon, Bingley. *vhe*, W. E. Little, Chester; J. Lane, Burton-on-Trent; J. Chesters. *he*, Earl of Loudoun; H. E. Martin, Souththorpe; B. Cox, Moulton, Northampton.

GAME (Any other variety).—Cock or Cockerel.—1, E. Aykroyd, Ecclehill, Leeds. 2, H. E. Martin. 3, L. Lane. 4, E. Bell, Burton-on-Trent. *c*, B. Mallett, Balham. *Hen or Pullet*.—1, Wilson & Hodgson, Ilkworth. 2, E. Aykroyd. 3, G. H. Fitzherbert. 4, E. Bell. *vhe*, W. Smith, jun., Easthorpe. *he*, Fisher & Charnock, Ilkworth.

DONKIOS (Coloured).—Cock or Cockerel.—1 and 2, Mrs. Arkwright, Sutton Scarsdale. 3, M. Rames, Stirling. 4, G. Pounder, Kirby Moorside. *he*, W. H. Robson, Reepham, Lincoln. *c*, Rev. E. Bartrum, Berkhamstead. *Hen or Pullet*.—1, Lady A. B. Pierce, Bedale. 2, Rev. E. Bartrum. 3 and 4, Mrs. Arkwright. *he*, Mrs. Somerville, Chirk. *c*, J. H. Nicholls, Lostwithclie.

DONKIOS (Any other variety).—Cock or Cockerel.—1, W. Roe, jun., Newark. 2 and 4, Hon. Mrs. Colville, Sillington, Burton-on-Trent. 3, Withheld. *Hen or Pullet*.—1, G. Potter, jun., Trowel. 2, Withheld. 3, J. E. Piggin, Hincley. 4, W. Roe, jun., Newark.

COCHINS (Buff or Cinnamon).—Cock or Cockerel.—1, W. A. Burnell, Southwell. 2, R. P. Percival, Northenden, Manchester. 3 and *vhe*, W. H. Crabtree, Levenshulme, Manchester. 4, C. Sidgwick, Keighley. *Hen or Pullet*.—1, R. P. Percival. 2, J. A. Benton, Erdington, Birmingham. 3 and 4, W. H. Crabtree. *vhe*, C. Sidgwick, Keighley; H. Goodfellow, Mabley, Newcastle; Mrs. Bentley, Fernside, Upper Teddington; G. Palfreyman, Heeley, Sheffeld; H. Feast, Swansea. *he*, H. V. Story, Buddington Manor; Lady Bolton, Bedale; H. Yardley, Birmingham; W. A. Burnell; W. H. Crabtree.

COCHINS (Partidge).—Cock or Cockerel.—1, Mrs. R. Story, Derby. 2, R. P. Percival, Northenden, Manchester. 3, T. M. Derry, Geuney. 4, C. E. Pater, Sandy. *he*, E. V. Pryor, Welwyn, T. Sheppard, Humberstone, Leicester. *c*, E. V. Pryor. *Hen or Pullet*.—1, T. Stretch, Ormskirk. 2, W. A. Burnell, Southwell. 3, E. Todman, Whitechurch, Salop. 4, T. M. Derry. *vhe*, R. P. Percival. *he*, R. P. Percival; Mrs. R. Story; E. N. Fryor; T. Sheppard.

COCHINS (Any other variety).—Cock or Cockerel.—1, R. S. S. Woodgate, Penbury, Tunbridge Wells. 2, E. V. Pryor. 3, W. Whitworth, Longsight, Manchester. 4, C. Wilson, Elton. *vhe*, W. A. Burnell. *he*, H. Feast, Swansea. *Hen or Pullet*.—1, W. Whitworth, jun. 2, W. A. Burnell. 3, R. P. Percival. 4, E. Bishop, Gwydyr, Llangwst. *vhe*, W. A. Burnell; W. Whitworth, jun.; R. P. Percival. *he*, G. D. Wagstaff, Beeston; R. S. S. Woodgate; H. Feast, Swansea.

BRAMMAS (Dark).—Cock or Cockerel.—1 and 3, T. F. Ansell, St. Helens. 2, H. Lingwood, Creeping, Needham Market. 4, W. R. Garner, Dyke, Bourne. *vhe*, R. P. Percival. *he*, Miss E. E. Pawlett, Bedale; Lady Bolton; Bridgewater and Yoxall, Wednesbury. *Hen or Pullet*.—1, T. F. Ansell. 2, M. Leno, Markgate Street, Dunstable. 3, R. P. Percival. 4, E. Fritchard, Tettenhall, Wolverhampton. *vhe*, R. P. Percival; H. Lingwood; T. F. Ansell; W. H. Crabtree. *he*, R. P. Percival; F. Bennett, Shifnal, Salop; R. B. Wood, Uttoxeter; W. H. Crabtree. *c*, Birdwater & Yoxall; Rev. J. D. Penke, Chertsey; J. Lyon.

BRAMMAS (Light).—Cock or Cockerel.—1, H. Lingwood. 2, G. W. Pettit, Norwood. 3, F. Bennett, Shifnal, Salop. *vhe*, T. A. Dean, Marden, Hereford. 4, M. Leno, Markgate Street, Dunstable. *he*, R. P. Percival; W. J. Ford, Humberstone. *c*, Miss J. M. Foulkes, Montgomery. *Hen or Pullet*.—1, W. H. Crabtree. 2, H. Lingwood. 3, Capt. H. Savile, Wyke. *vhe*, Mrs. Port, Sharnbrook, J. R. Rodbard, Writington; G. W. Pater; J. H. Butler, Erdington, Birmingham. *he*, J. Benton, Erdington, Birmingham; Capt. Savile; C. Wilson, Langar, Elton; E. Mannoch, Woodridings, Pinner. *c*, P. Haines, Diss.

HAMBURGERS (Gold or Silver-pencilled).—Cock or Cockerel.—1, H. Beldon, Goldstock, Bingley. 2, W. Dixon, jun., Shipley Colliery, Derby. 3, C. J. N. Row, Milford. *vhe*, Mrs. G. M. Rods, Hendre, Monmouth. *he*, W. Speakman. *Hen or Pullet*.—1, H. Beldon. 2, J. Long, Bromley Common. 3, Waller and Wrighton, West Green, Stokesley. *vhe*, J. Smith, Lincoln. *he*, — Faulkner, Thrapston; — Speakman, Cheshire; Mrs. Ellis.

HAMBURGERS (Gold and Silver-spangled).—Cock or Cockerel.—1, H. Beldon. 2, J. Long. 3, — Curver, Barrowbridge. *vhe*, — Robinson, Baildon, Leeds. *he*, — Halham, Whitwick, Leicester. — Ward, Bardon Hill, Ashby-de-la-Zouch. *Hen or Pullet*.—1, Ashton & Booth, Broadbottom, Mottram. 2, — Robinson. 3, H. Beldon. *vhe*, — Hanson. *he*, — Gill, Ferncliff; Mrs. Newt in, Baildon, Rotherham; — Ward.

SPANISH (Black).—Cock or Cockerel.—1, — Wilkinson, Skipton. 2, H. Peldon; — Redford. *vhe*, — Dyer, Colgrave. *he*, — Thresh, Bradford. — Parker, Northdon. *Hen or Pullet*.—1, — Thresh. 2, — Pitt, Wolverhampton. 3, — Fowell. *vhe*, — Parker; — Woodhouse, Lynn. *he*, — Dixon; — Thresh.

HOLDANS.—Cock or Cockerel.—1 and 2, — Wood, Uttoxeter. 3, F. Lake, Sittingbourne. 4, — Quibell, Newark. *vhe*, — Grant, Bradford. *he*, — Drug, Faversham; P. Radford, Belper; — Quibell; — Hibbert, Hyde, Manchester. *Hen or Pullet*.—1, — Drug. 2, — Cullack, Littleport, Cambridgeshire. 3, — Coppicstone, Lostwithclie. 4, — Quibell. *vhe*, Mrs. Allcock, Sittingbourne. *he*, — Harrison, Grants, Over Sands, Lancashire; — Lake; — Akin, Shirkebeck, Easton; — Harrison; — Quibell; Rev. A. J. L. Dobbin, Notts; — Wood.

REV. CEIS, LA FLECHE, and LA BREDA.—Cock or Cockerel.—1, — Wood. 2, Rev. N. J. Rieley, Newbury. 3, — Harris, Bridgend. *Hen or Pullet*.—1, G. E. Murdoch, Reford. 3 and 3, — Wood. *vhe*, H. Barrow, Southwell.

ANY OTHER VARIETY.—Cock or Cockerel.—1, — Beldon. 2, — Robinson, Baildon, Leeds. 3, Rev. A. G. Brooke, Shrewsbury. *he*, — Burrows. 4, — Coppicstone, — Harrison; — Quibell. *Hen or Pullet*.—1, — Robinson. *he*, — Sidgwick, Keighley; — Feast, Swansea. *he*, — Stott & Booth, Preston. *he*, — Hawkins, Southwell. — Dean; — Feast.

GAME BANTAMS (Black and Brown-breasted Red).—1, — Eaton, Grantham. 2, R. Swift, Southwell. 3, K. A. Bradbury. *he*, J. Callidine, Heanor; E. Cope, Edgely, Southwell.

GAME BANTAMS (Any other variety).—1, E. Brownlie, Kirkecaldy. J. W.

Brockbank, Kirksanton. 3, A. C. Bradbury, Nuthall. *the*, J. Eaton, Grantham. *he*, J. Smith, Southwell; A. C. Bradbury.
BANTAMS (Any other variety).—1, Mrs. Wootton, Mapperley. 2, H. Beldon. 3, G. H. Poole, Bridge water. *the*, M. Leno, Dunstable.
SELLING CLASS.—*Cock and Cockerels*.—1, M. Leno. 2, C. Wilson. 3, J. T. Parker. *he*, P. Hutchinson, Spalding; Mrs. R. Storey, Derby; W. & A. Barton, Chatsworth; T. Sheppard, Humberstone; W. A. Burnell, *Pair of Hens or Pullets*.—1, Lady Bolton. 2, C. Wilson; E. Ellis, York. *he*, T. Sheppard; T. F. Ansell; W. A. Burnell; Rev. J. D. Penke.
DUCKS (White Aylesbury).—1, J. Hedges, Aylesbury. 2 and 3, Mrs. Wootton, Mapperley, Nottingham. *the*, Mrs. H. Crewe, Derby. *he*, E. Snell, Barrowden; W. Green, Clonton Bassett.
DUCKS (Rouen).—1, W. H. Robson, Crepham. 2, J. Harvey, jnn., Canterbury. 3, W. M. Eoe, jun., Newark. *the*, G. Harrison; W. Whitworth, jun., Manchester. *he*, A. C. Bradbury, Nuthall.
DUCKS (Any other variety).—1 and 2, M. Leno. 3, R. B. Smith. *he*, Mrs. Wootton; Mrs. Arkwright; T. Ashton, Wollaton; H. Yardley; W. R. Pratt.
GEESSE (White).—1, A. C. Bradbury. 2, E. V. Snell.
GEESSE (Any other variety).—1, W. H. Crewe. 2 and 3, Hon. Mrs. Colville, Burton-on-Trent. *he*, Mrs. A. Gny, Grantham.
TURKEYS.—1, G. R. Pearson. 2, N. J. Kingley. *Cock*.—1 and 2, E. Horner. 3, H. Yardley. *the*, J. E. Crofts, Worksop. *he*, C. H. Clarke, Old Sneyton.

PIGEONS.

CARRIERS—*Hen*.—1, H. Yardley. 2 and 3, E. Horner. 3, A. Billeysd, Nottingham. *he*, C. H. Clarke. *Young Cock*.—1, A. Billeysd. *the*, C. H. Clarke. *he*, T. C. Marshall, Nottingham.
POUTERS—*Cock*.—1, F. Graham, Sheffield. 2, J. Barker, Kew Bridge. *the*, E. Horner. *he*, G. Holloway, jun., Gloucester; E. Horner. *Hen*.—1, J. Barker. 2, F. Graham. 3, G. Holloway, jun.
BARDS.—*Cock or Hen*.—1, J. E. Spence, Seafeld. 2, H. Yardley. 3, E. Horner. *the*, J. F. Crofts.
TUMBLERS (Almond).—*Cock or Hen*.—1, H. Yardley. 2, J. Ford, Humberstone. *the*, W. P. Pratt.
TUMBLERS (Any other variety).—*Cock or Hen*.—1, J. Ford. 2, W. Woodhouse, Norfolk. 3, J. Baker. *the*, E. Horner. *he*, W. Woodhouse; J. W. George, Beeston.
DRAGONS.—*Cock or Hen*.—1, F. Graham, Birkenhead. 2, W. Gamon, Chester. *the*, H. Yardley. *he*, C. F. Herrieff, Eanbury.
FANTAILS.—*Cock or Hen*.—1, J. F. Lovesside, Newark. 2, J. Walker, Boston. 3, H. Yardley. *the*, J. Walker. *he*, J. F. Lovesside; Mrs. Wootton.
OWLS (Foreign).—*Cock or Hen*.—1, L. Allen, Southwark. 2, E. Horner. 3, H. Yardley.
TRUMPETERS.—*Cock or Hen*.—1, J. Lederer, Liverpool. 2, A. Van Meersch. *he*, E. Horner.
OWLS (English).—*Cock or Hen*.—1, J. D. Hustwayte, Nottingham. 2, S. P. Carver, Bournemouth. 3, J. E. Leighton, Nottingham. *he*, E. W. Van Tendon, London; E. Lee, Chesham; W. Woodhouse.
JACOBSINS.—*Hen or Pullet*.—1, J. Baker. 3, A. Wood, Worksop. *he*, L. Allen; J. Smith, Lincoln; A. Van Meersch; G. Hardy, London.
TURBETS.—*Cock or Hen*.—1 and *the*, J. Baker. 2, H. Yardley. 3, J. C. Crofts. *he*, A. Van Meersch; G. Hardy; E. Horner.
ANTWERPS (Long-faced).—*Cock or Hen*.—1, W. Gamon. 3, H. Gough, Wolverhampton. *the*, H. Yardley. *he*, J. Deacon, Sheffield. *he*, A. C. Bradbury.
ANTWERPS (Long-faced).—1, C. F. Herrieff. 2, W. Gamon. 3, R. Grey, Hyde. *the*, R. W. Pratt. *he*, W. Gamon. 3, J. Roberts, Thornton, Bradford.
NCBS.—*Cock or Hen*.—1, A. Van Meersch. 2, H. Yardley. 3, E. Horner.
ANY OTHER NEW OR DISTINCT VARIETY.—1, H. Yardley. 2, C. F. Herrieff. 3, M. Ord, Durham. *the*, J. E. Crofts. *he*, J. Baker; E. Horner; R. E. Wood.
SELLING CLASS.—*Cock or Hen*.—*Price not to exceed £1*.—1, H. Gough. 2, J. E. Crofts. 3, C. F. Herrieff. *he*, J. Carver; W. Woodward. *he*, J. Robinson; E. Horner.
SELLING CLASS (Any other variety).—*Price not to exceed 40s.*.—1, E. Horner. 2, P. Hutchinson. 3, C. N. Dutton, Chester. *he*, F. Cooke, Nottingham; W. Gamble, Mowbray; C. F. Herrieff; J. Cargill, York. *he*, A. C. Bradbury.

JUDGES.—*Poultry*: Mr. Dixon, Bradford; Mr. Hewitt. *Pigeons*: Mr. Esquilant; Mr. H. Ailsop.

LOUGHBOROUGH POULTRY AND PIGEON SHOW.

The annual Exhibition, in connection with the Agricultural Association, took place in the Elms Park, on the Leicester Road, on September 30th. The weather was all that could be desired; the arrangements by the energetic Secretary, Mr. W. Berridge, were good, and the Show well patronised.

The poultry tent contained many very excellent birds, some of which would rank with those exhibited at first-class shows. The first-prize pen of *Geese* were not only weighty but in capital condition. There were several good specimens of *Aylesbury Ducks*; but amongst the Rouen Ducks the most showy-looking pen failed to obtain a prize, owing to the white feathers in one of the flights. There were many fine birds of *Hamburgs*, *Game*, *Cochins*, and *Brahmas*.

There were six classes for *PIGEONS*, with good specimens of *Pouters*, *Carriers*, *Tumblers*, and *Turbits*. In *Carriers* the first prize was given to Blacks, Duns winning second honours. *Fantails*, nearly all White, were a noticeable feature. In the Variety class *Barbs* took the first prize, the second being given to *Trumpeters*.

GEESSE.—1, W. Woodroffe, Stamford. 2, J. Garton, Coates. *he*, W. T. Everard. *TURKEYS*.—1, W. T. Everard.
DUCKS.—1, M. M. Cashmore, Sheepshed. 2, J. Tyler, Loughborough. *he*, I. B. Dobell. *the*, W. T. Everard; M. M. Cashmore. *Aylesbury*. 1, Hon. F. Strutt, West Leake. 2, I. B. Dobell. *he*, M. M. Cashmore; I. B. Dobell. *he*, M. M. Cashmore.

GAME.—1, W. T. Everard. 2, J. Tyler. *he*, S. W. Hallam, Whitwick; W. T. Everard. *Cock*.—1, S. Smugherst, Kingstone. 2, S. W. Hallam. *he*, J. Tyler; M. Brown, Ash Kettleby; W. T. Everard.
DUCKS.—1, Hon. F. Strutt. *he*, M. M. Cashmore.
HAMPSHIRE.—1 and 2, S. W. Hallam, Whitwick. *he*, J. Tyler; J. Ward, Bardon Hill; M. M. Cashmore.

ANY VARIETY.—1, S. W. Hallam (Golden-spangled *Hamburgs*). 2, M. M. Cashmore (Golden-pencilled *Hamburgs*). *he*, S. W. Hallam; W. T. Everard; S. Clarke, East Leake. *he*, J. Garton.

GENE FOWLS.—1, T. Redshaw, Burton Bandalls. 2 and 3, I. B. Dobell.

BANTAMS.—1, S. W. Hallam. 2 and 3, M. M. Cashmore. *he*, J. Tyler.

PIGEONS.

POUTERS.—1, S. W. Hallam. 2, M. M. Cashmore. *he*, J. Tyler.

CARRIERS.—1 and 2, M. M. Cashmore.

TUMBLERS.—1 and 2, M. M. Cashmore. 2, J. Tyler.

FANTAILS.—1 and 2, M. M. Cashmore. *he*, J. Tyler.

TURBETS.—1 and 2, M. M. Cashmore. *he*, S. W. Hallam; J. Tyler. *ANY OTHER DISTINCT VARIETY*.—1, M. M. Cashmore (Barbs). 2, M. Brown (Trumpeters).

JUDGES.—Mr. G. J. Barnesby, Derby.

ECCLESFIELD POULTRY SHOW.

This was held on the 1st inst., when the following prizes were awarded by the Judge, Mr. Teebay.

DORKINGS.—1, Burch & Boulter, Sheffield. 2, W. Harvey, Sheffield.
SPANISH.—1, E. Brown, Sheffield. 2, Burch & Boulter.
COCHIN-CHINAS.—1, C. Sidgwick, Kettleby. 2 and *he*, W. Harvey.
BRAHMAS.—1, W. Harvey. 2, Bridgwater & Yoxall, Wednesbury. *he*, J. Eastshaw.
GAMES.—1, E. Hemmingsfield, Ecclesfield. 2, J. Denton.
HAMBURGH.—*Golden pencilled*.—1, T. Crookes, Owlerton. 2 and *he*, Burch & Boulter. *Silver pencilled*.—1, G. Hemmingsfield. 2, W. Harvey.
FOLANTS.—1, W. Harvey. 2, J. Heeley. *he*, A. & W. H. Silvester.
ANY OTHER VARIETY.—1, E. Brown. 2, J. Heeley. *he*, W. Beatty.
BANTAMS.—*Game*.—1, W. Harvey. 2, J. Smith, Walkley. *he*, J. Smith; T. Johnson. *Any other variety*.—1, Burch & Boulter (black). 2, K. H. Ashton, Manchester. *he*, K. H. Ashton; J. Farshaw; J. Simpson.
SELLING CLASS.—1, W. Bentley, Uppton; 2, Burch & Boulter. *he*, J. Heeley; A. & W. H. Silvester.
TURKEYS.—1, R. Lowe, Shugreen. 2, W. Shaw. *he*, J. Pearson.
GEESSE.—1, T. Ogden. 2, W. Shaw. *he*, J. K. Shaw.
DUCKS.—1, J. Shillito, Fittisworth. 2, J. Denton. *he*, D. Green.

PIGEONS.

CARRIERS.—1, J. Smithers. 2, W. Harvey.
TUMBLERS.—1, W. Harvey. 2, A. & W. H. Silvester. *he*, H. Yardley; W. Harvey.
FANTAILS.—1, W. Harvey. 2 and *he*, E. Brown.
ANTWERPS.—1 and *he*, J. Smithers. 2, H. Yardley.
JACOBSINS.—1, J. Earnshaw. 2 and *he*, W. Harvey.
POUTERS.—1 and 2, W. Harvey.
ANY OTHER VARIETY.—1, W. Harvey. 2, J. Earnshaw. *he*, A. & W. H. Silvester.
H. YARDLEY.—E. Brown.
BARDS AND TRUMPETERS.—1 and 2, W. Harvey. *he*, H. Yardley.
OWLS.—1, J. Smithers. 2, H. Yardley. *he*, T. Hey.

RABBITS.—*Heavy*.—1, M. Marsland. 2, G. Kirkby. *Best colour*.—1 and 2, W. Alison. *he*, G. Kirkby.

NOTTINGHAM BIRD SHOW.

The annual Exhibition of Canaries, Mules, and British Birds was held at St. John's Schools, on October 5th, 6th, and 7th, 1874. We will furnish a report of the Show next week.

NORWICH.—*Clear Yellow*.—1 and 2, J. Adams, Coventry. 3, J. Audley. *he*, J. Evans, Derby; S. Tomes, Northampton. *he*, T. Smith, Coventry. *Clear Buff*.—1 and 2, J. Adams. 3, S. Tomes. *the*, J. Evans; S. Roberts, Derby. *he*, J. Evans; T. Smith. *he*, J. Audley; T. Smith.
NORWICH.—*Variegated Yellow*.—1, T. Adams. 2, J. Audley. 3, H. Watson, Litchurch, Derby. *the*, W. Richards; J. Evans (2). *he*, S. Tomes. *he*, S. Buckle; A. Duke, Sneyton. *Variegated Buff*.—1, T. Adams. 2 and 3, J. Evans. *the*, W. Richards; W. & F. Gawnthorne, Nottingham. *he*, J. Goode, Leicester.

NORWICH.—*Ticked Yellow*.—2, W. Greaves, Nottingham. 3, S. Tomes; J. Goode. *Ticked Buff*.—1, J. Adams. 2 and 3, T. Smith. *the*, J. Evans; J. Audley. *he*, J. Evans; S. Roberts; C. Mendenhall & Ellerton, Darlington; T. Alden, Norwich. *he*, W. West; R. Whitaker, Darley Abbey, Derby; S. Tomes. *Disqualified*, G. Doman, Nottingham.

NORWICH.—*Yellow Crested*.—1 and 3, Clark & Newton, Nottingham. 2, S. Roberts. *the*, Clark & Newton; T. Alden; J. Goode. *he*, J. Evans. *Buff Crested*.—1, G. Doman. 2, J. Torr. 3, J. Goode. *the*, Clark & Newton; W. Richards, Bulwell; J. Evans; T. Alden (2). *he*, F. Murden, Nottingham; J. Evans; T. Alden. *he*, J. Torr, Derby; S. Tomes; J. Goode. *Disqualified*, G. Holmes, Nottingham.

BELOIAN.—1, K. Hawman, Middlesbrough. 2, J. Wilcockson, Bulwell. 3, R. Whitaker. *the*, J. Wilcockson, Bulwell; H. Davis, Wolverhampton; R. Whitaker. *he*, W. Corbett.

LIZARD.—*Jongue*.—1, C. Mendenhall & Ellerton. 2, S. Godher, Nottingham. 3, W. Richards. *he*, K. Jackson; J. Evans. *Grey*.—1, S. Roberts. 2, W. Richards. 3, S. Godher. *he*, J. Evans. *he*, C. Mendenhall & Ellerton.

CINNAMON.—*Jongue*.—1, 2, and 3, J. Adams. *he*, J. Evans; S. Tomes. *Buff*.—1, 2, and 3, J. Adams. *the*, J. Evans (2); S. Tomes. *he*, T. Tenniswood, Middlesbrough.

ANY OTHER VARIETY OF CANARY.—1 and 2, J. Adams. 3 and *the*, J. Adams. *he*, J. Evans; J. Spence.

MULES.—1, J. Spence, South Shields. 2, T. Tenniswood. 3, J. Goode. *the*, W. Richards, Ryson Green; D. Wright, Nottingham; R. Hawman. *he*, J. Williams, Whitehaven (2); J. Adams; S. Roberts. *he*, J. Evans.

BRITISH BIRDS.—1, Whitehead. 2, R. Worth, Nottingham. 3, J. Evans.

SELLING CLASS.—1, J. Evans. 2, R. Whitaker. 3, Clarke & Newton. *the*, H. Woodhouse, Nottingham. *he*, Clarke & Newton (2); J. Scrimshaw; J. Evans.

JUDGES.—Mr. G. J. Barnesby, and Mr. G. Tuckwood.

PIGEONS AT THE BIRMINGHAM SUMMER POULTRY SHOW.

The Pigeons were chiefly shown several tiers high in a room adjoining the hall. It was almost impossible to see those on the ground, especially in the corners of the room, and the Judges must have had a most difficult task.

Black *Carrier* cocks headed the list, Mr. Yardley winning the first prize with a bird marvellous in wattle. The competition in *Dun* cocks was strong, the same exhibitor again taking first honours. In cocks Any other colour, a Blue (Mr. White) in splendid condition, but not large in wattle, was first; second was an excellent bird, but in moult. There were thirty-four competitors for the cup for a young *Carrier*. Mr. Bulmer won it with a Black long in body and very promising. Second was a forward *Dun*.

Pouters were few from the fact of all colours being mixed. In cocks the *cnp*, second, and third prizes all went to Blues; in hens the cup bird was a Blue, second Black, third Yellow.

Barbs.—The first prize in all three classes went to Mr. Firth. Mr. Yardley's second-prize hen was a superb bird, but out of condition. In the class for young birds there seemed to us little to choose between the winners.

Tumblers.—Almonds were as usual few and good. Mr. Woodhouse carried off all the prizes in Balds or Beards. First and third were Blue Beards, second a Red Bald.

In the class for any other Short-faced variety Mr. Minnitt took first with a lovely Black Mottle in blooming condition.

Three classes for Long-faced Tumblers brought out many curiosities only known to the initiated. We especially admired a Black Mottle Muff-legged belonging to Mr. Mapplebeck.

Pantails must have given the Judges the trouble they usually have over this class; at least the White ones must, so different do the same birds look in different positions and at different moments. We thought a young bird highly commended (No. 843, Mr. Serjeantson), one of great promise. The cup for Any other colour was won by one of the best Blacks in colour and carriage we have ever seen, a peak-headed bird.

Jacobins.—The Reds and Yellows were in a bad light, first apparently a rich Red with head buried in a perfect hood. First in the "Any other colour" class was a little White, Mr. John Baker's, perfect in head and chain.

Turbits.—The class for Red or Yellow was specially marked by the Judges a good class, and it certainly bore out their notice, being uniformly excellent. The cup went to a Yellow, perfect in colour and frill, but narrower in head than we like. It was pressed hard by the second, a veteran winner, shown by Mr. Cresswell, a rich Red with a fine broad head. Third an excellent young Red. Mr. Dew won the cup for Any other colour with a grand Silver; second a lovely Blue, third a Silver.

Nuns were not remarkable. The cup went to a nice Black, a Yellow being second.

Owls.—The class for English Owls was a very large and good one. We are glad again to see White Owls; one of great merit won the cup.

Trumpeters.—The new type of birds imported of late from Asiatic Russia as usual carried all before them. We much regret that the beautiful White Trumpeters of former days have almost disappeared since these new importations.

There were four classes for *Dragoons* and four for *Antwerps*, the awards in which seemed to give satisfaction on the whole. *Swallows* and *Magpies* also had classes, likewise *Archangels*, but a pile of boards over the latter variety precluded all possibility of admiring their bright hues or of criticising the awards.

The Any other variety class was an interesting one. Importations of a kind of feather-legged Turbit have of late been made from Egypt and elsewhere in the East; their colour is splendid, but they are to English eyes disfigured with coloured spots about the head. The cup was awarded to a Red bird of this variety. Second was a curious Red Frillback, third a Satinette. We admired two unnoticed birds (*Damascenes* we believe they are called), ashy blue in colour with dark eyes.

On the whole everything was done to make the Pigeons as comfortable as possible. The great heat of the first day threw many birds deep into the moult in a few hours, but no harm need result from this.

PRIESTS.

PRIESTS or Quakers are the pet toys of many fanciers; and here the old adage is very applicable, "Everyone to his fancy." For myself, my fancy runs in a different channel, though I remember well with what happiness I carried home the first pair of Priests I ever owned. They were very ordinary birds, as judged in these days, but to me they were priceless. The rest of the afternoon was spent nailing boxes against the house wall; and as the boxes were too heavy for a boy to handle, occasional tumblers of box, boy, and birds drew forth peals of laughter and merry shouts from our neighbour's daughters, before whose eyes I was always a shamefaced youth. It may be that same experience was what ultimately caused me to dislike the Priests. Not that the young ladies were at all disliked; but what boy can stand his interest in his Pigeons made a matter of amusement, and yet preserve his equilibrium? As sure as I went into the garden to look up at my Quakers, so surely did those girls look out of the window and whistle "Hua, hua, hua." Many is the time they have driven me away with a forlorn smile on my lip and bitterness in my heart to wish my Pigeons were dead. Ah! but I have had my revenge since those days. Both those girls have husbands, both have children, and both have Pigeons—Pigeons in their garrets, in their stables, in their cellars. Yea, I saw this day a pair of cropped-winged birds upon the baby's crib, as I examined the oldest boy for the measles. His last words were, "When are you going to briog me the Quakers?" His mother's benediction was, "Doctor, if you bring any more Pigeons here, you shall never enter my house again. It is all your fault, I cannot have a clean room to sit down in."

My readers, you cannot tell how well I felt as I drove home, knowing the merriment and whistling is all on my side now. That boy will be here after the Quakers as soon as he gets out;

and every time I see his mamma it is only necessary to "hua, hua" once or twice to awaken the merriest memories of the past. The bitterness of my youthful days is gone, and we can afford to laugh amid our retrospection at what was then the most important object of our lives.

Now that we have reached a breathing place, you may ask, What has this to do with Priests? Why, but for what has been written, no article on that variety would have followed, nor would I have impressed upon you how necessary it is that we should enter into the sympathies of the little people. They cannot understand us; therefore, to insure their happiness, try to understand them; the effort wonderfully repays us. If your boy wants Pigeons, help him to fix up for them. Do not laugh his fancies to scorn, or you may chill all the feelings that bind him to his home; and recollect, your fancies for your cigar, novel, or horse are no more intense than his for his (to you) inferior interests.

But enough of this. Let us to the Priests, as they are called in Germany, on account of their white cowl, and in contradistinction to the black veil of the Nun; or Quakers, as they are called in this country, by reason of their firm, sedate, and sombre appearance.

The Priest is about the size of the common, and the plain birds are not unlike it in shape, but the Starlings partake more of the shape of the Suabian or Archangel, to which they are nearly related. The Priest is a solid or whole-coloured bird, with the exception of the head, which is bald or white. The line between the colours passes through the centres of the eyes, and along the inner and lower part of the hood, which must be free from any foul white feathers. The upper half of the head is white, the lower dark. The eye is generally mixed, but I have seen them where the upper half was pearl, the lower half dark; thus partaking of the colours of the head and neck. The hood must be proportioned to the size of the bird, and in the ordinary colours it must be a perfect cup-edged hood; but in the Starling a point head is frequently seen, and does not detract from the beauty of the bird; the feet closely covered with short feathers, among which no whites are allowed, not even on the toes. The Starlings are clean-footed, and indeed ought hardly to be ranked with the Priests, as they more nearly approach the Suabians and Archangels. There are plain Priests, which signifies that the colours—black, red, blue, and yellow—are solid (except the Baldhead), without bars across the tail or wings; then there are barred Priests, in which the bars are allowed; and also white-barred birds, in which white bars occupy the positions on the wings and tail, in place of the dark bars generally seen. Of these, the red and yellow birds with white bars are rarest; the plain birds next. The Starling or Star Quaker is a black bird with white bars across the wings, and a crescent-shaped band of finely-spangled iridescent iridescent feathers about the throat, the upper border of which is straight across the neck, and distinctly marked; the head is bald, and feet clean. The following points may be useful to judge by:—

1. **Colouring.**—A coloured bird with white head, the line of division passing through the centre of the eyes, within the base of the hood, and sloping at the corners of the mouth.

2. **Eyes.**—The upper half pearl, the lower half dark.

3. **Feet.**—Covered with short close feathers, except the Starlings, which are clean.

4. **Hood.**—Well-proportioned, clear on the inside; the Starling sometimes point-headed.

5. **Colours.**—Black, red, blue, yellow, and starling.

Sometimes the Priest degenerates, and loses nearly all the white of the head, excepting a spot near the base of the beak, then it is called a white spot.—Dr. W. P. MORGAN (in *American Fanciers' Journal*.)

[The lively-writing Dr. Morgan is more amusing than ever in the above article. It must be worth being what children call "a little ill" to have the doctor in attendance. In regard to the Pigeons called Priests, they and Blue Brunswicks, similar birds, appeared at our shows a few years since; but I have not seen any recently. The fact is that German Toys don't take in England. Our fanciers seem to ask for something more than the ordinary Pigeon form, with variations only in the colour and disposition of the feathers. John Bull perseveres with the older fancy Pigeons, and fights for perfection in their many properties; but is no great feather fancier. Then Sandy Scot sticks to his Pouter (long Pigeon suits long face, aye! and long head too, for Sandy has that long as well as his face), and he tries hard to lengthen the limb, narrow the girth, and enlarge the crop of his pet; but he, too, is not a feather fancier. Perhaps all this is a pity; but so it is. We read about German Toys, but we do not care to keep them, or, at any rate, we do not give our hearts to them.—WILTSHIRE RECTOR.]

ORNAMENTAL WATERFOWLS.

In answer to "T. H. T.," there are two sorts of "tamed wild fowl." In one they are wild birds compelled to make the best of a bad bargain, because they are pinioned and unable to fly

away; in the other they are bred either from these domesticated parents or from wild eggs that have been taken and put under tame birds. It is, however, necessary with both either to pinion them or to keep their wings so cut that flight shall be impossible. Although Ducks are called waddlers, and are supposed not to be clever on their feet, still they will stray a long way, and with the help of hiding places here and there may be found in the course of twenty-four hours far from their home. If it is easy for them to do this, it is much easier for them to follow a stream. Having, as you say, a pond 60 yards in circumference, we would advise you to fence-in with wire between 3 and 4 feet high three sides of the pond; the fourth, ending at the stream; should be also fenced-in, but with a strong iron grating reaching to the bottom. Ducks dive. A small island might be made in the following manner:—A strong framework of rough timber, moored by means of a strong chain attached to a stone, weight, or anchor sufficiently heavy to retain it in position. It should then be covered with earth, and planted with fast-growing shrubs that thrive in very damp localities. It is well if the fences of which we have spoken be 5 or 6 yards from the water's edge, and there may be planted at intervals rhododendrons, hollies, &c., with a pathway through the middle of them. With us such a place, stocked with beautifully-plumaged Ducks that come to whistle to be fed, is always a relaxation and resort. The banks may be of turf down to the water's edge. At each side, or in two places at each side, the bank should be cut through, leading straight into the water. These are to the Ducks what man-holes are to labouring men when they are overtaken by a train from which they are unable to escape, and find themselves in a tunnel. The beaten Duck cannot climb the upright if not overhanging bank, and submits to its fate—either beaten to death by its pursuer or drowned; but if it comes to one of these openings it is at once ashore, and is safe. It may appear paradoxical to speak of drowning a Duck, but it is a fact that a Duck drowns as readily as a hen. So long as the outer plumage is waterproof so long a Duck is buoyant, but if from confinement in a dry place this outer feathering becomes dry, the water finds access to the down, the bird becomes, if the term may be used, "water-logged," sinks deeper and deeper till the head falls under the surface from sheer inability to hold it up, and the Duck drowns.

Carolina Ducks, Muscovies, and Egyptian Geese are the only, or almost the only water birds that perch. The Carolina will not make a nest, nor lay in one. It must have a small kennel like a dog kennel, made of plain plank, with cross pieces nailed across it, standing on a pile, and having a small ladder running to the water, as in *fig. 99*. Such huts are not unsightly on a piece of water like that which you describe. These birds also greatly delight in perching on old pollard stams, and these look rather well standing a few feet from the bank in the water.

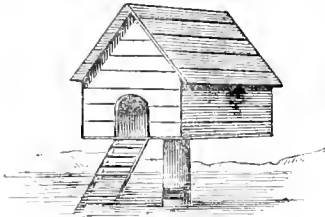


Fig. 99.

Your house that you mention will never be tenanted. Tame—i.e., farmyard Ducks will take to such a place. Wild fowl will get under shrubs or banks, or any place that offers the security they require. They are clever in finding it. Many, nearly all, will roost on the island if you make it. Cats and water rats are both enemies, but the latter are not to be greatly feared, and the cats will not take water after them. Carolinas, Mandarins, Shell-drakes, Brazilian Pintail, Casarkas, Whistling Ducks are all to be had tame-bred, and the addition of a couple of pairs of Brown Call Ducks will help to keep them together. They should be fed in shallow water where there is a gravel bottom, with water clear enough to see every grain of corn that is given. They will dive after it, but if given in thick and deep water the loss is great.

These birds that may be made tame by pinioning, by association, and by good treatment are Dumbird, Tufted Duck, Pintail, Widgeons, Shoveller, Garganey, Scamp, Gadwall, and Teal. These remain tame as long as they are confined. Whenever they have the opportunity they get away. The food should be barley, Indian corn, buckwheat, a little hemp; nothing helps more to keep them tame than at times to give them some crumb of bread, they are very fond of it, and as it floats it causes amusement to see them all after it.

Keep the Peafowls in confinement for a time, and feed them well. When first let out tie their wings that they may not fly.

CRYSTAL PALACE BEE SHOW.

Is "BEATEN BUT NOT DISMAYED" right in the facts in his statements about driving bees at the Crystal Palace? I was much interested in this part of the Exhibition; and though I

saw hundreds if not thousands of dead bees on the floor of the balcony devoted to the manipulation, I attributed the loss of life to the people treading on those bees which happened to settle on the ground, and not to fighting amongst themselves, of which I saw no trace while I was there. From what we know about the wonderful instinct and memory of bees I do not think they were unable to distinguish their own homes. I was surprised to find the various hives working so steadily and systematically in spite of the confusion inevitable to the manipulation and the people constantly going in and out. The loss of bee life is of course to be deplored; but in the general diffusion of the means of saving the lives of bees by driving and uniting them to other stocks instead of consigning them to that monstrously cruel because lingering death, the brimstone pit, I think this part of the Exhibition was practically most successful in furthering one of the principal objects of the British Bee-keepers' Association, "the advocacy of humanity to the industrious labourer, the honey bee."

I think it would be good policy for the Committee to allow labouring men and bee-keepers of the humbler classes admission to the manipulation at a nominal price, say 1d. or 2d. Sixpence virtually excludes this class, which is the very one that would benefit most by a practical knowledge of the means of driving the bees without destroying them. I would further suggest that the Secretary provide a better and quieter room for the next meeting of the members of the Association. I do not say this by way of complaining, as I for one feel that the members of the British Bee-keepers' Association are very much indebted to Mr. Hunter, Mr. Abbott, and others for their work and trouble on our behalf, in causing this first exhibition of the Association to be such a success.—A YOUNG APIARIAN.

HONEY HARVESTS.

FOR six or seven years my balance sheet of bee-farming has been published annually. From various causes I shall not be able to present a fair balance sheet this year. Last winter all my best stocks of bees were sold; everyone in my possession likely to do well was bought. Many orders came that could not be met, simply because the stocks left were considered not worth selling—not good enough to put into the hands of buyers. Last winter dysentery attacked many of our hives, and thinned their populations to a great extent. My hives in March this year were weaker than it is possible to describe. Being rather too old to manage so many hives, it is my intention to reduce the number of my stocks. If I give up my large farm, I shall settle down to a small apiary of ten or twelve hives. If I cease to be a bee-farmer I shall become an experimental apiarian, and keep all within the limits of my own grounds. Hitherto I have kept bees for profit, and managed them with the least possible trouble.

The hives I have used are, in my opinion, incomparably better for bees and honey than any other kinds I have ever seen or heard of. In a week or two the attention of the reader will probably be called to various kinds of hives. Next year I shall most likely introduce various hives into my experimental apiary. Let no one fancy or say that in doing so I shall be seeking a better or more profitable hive than such as those I have so long used. No, I do not expect ever to find any other kind of hive equal to them for profit and convenience; but for the sake of contrast and variety, it seems desirable to have several kinds introduced into an experimental bee garden. I shall be exceedingly pleased if the Bee-keepers' Association offer next year their highest prize for "the best kind of hive for bees and honey," the hives for competition to be filled or partially filled by swarms of 1875, and exhibited without bees. No other prize will touch so important a question as the one now suggested, or please so many bee-keepers.

Taking Great Britain as a whole, I think that 1874 has been the best of the last six years for honey. Twice or thrice during that time have my best hives risen in weight to 100 lbs. each; but then the stocks were much stronger in spring, and swarmed much earlier than those of this year. This year March, April, and May, with the exception of the last ten days of April, were very unfavourable for honey-gathering and bees. More favourable weather occurred in June, the first half of July, and ten or eleven days of August. From the 19th to the 30th of August bees gathered honey fast on the moors.

In almost every district of this country swarming was unusually late, and I hear that in some counties few swarms were obtained. Satisfactory accounts come from many parts of England; more honey has been obtained this year than for some years past; but most correspondents have not given the weights of their hives, or the quantity of honey obtained. All, however, seem encouraged by their success in artificial swarming and uniting swarms. They are in the calm and hopeful possession of a theoretical and practical knowledge of bee-management.

Our old friends at Carlisle, Lancashire, are hardly pleased with the results of bee-keeping there this year. Swarming was

late, and only two first swarms in the parish rose in weight to 100 lbs.; a few swarms weighed 90 lbs. each, more 80 lbs., and more below these weights.

Being rather unwell during September I was unable to fetch my hives from the moors at the end of the season. They remained on the highlands of Derbyshire, consuming their stores, till the 3rd inst. Some of them I found are rather too heavy for me to handle and carry. Some of them now are between 90 lbs. and 100 lbs., some more than 80 lbs. each, some more than 70 lbs., and many less than that weight. This year the stock or mother hives are as heavy as their first swarms, which is an unusual occurrence, as first swarms in ordinary seasons generally rise in weight 20 lbs. and 30 lbs. more than their mother hives; but this year swarms had not time enough to overpass the parent hives. At the swarming season this year stock hives gathered a great deal of honey.

Where bees are kept for profit it is good policy to take honey when it can be obtained. When a good season comes round I deem it wise to reap a large harvest of honey, even to the reduction of the number of stocks. It is easy to multiply stocks in seasons in which honey is not stored in quantity. In grape-growing a crop is expected every year; in bee-keeping we cannot get a harvest of honey annually; it is therefore wise to take a large harvest of honey as often as possible. Honey will be taken from all our hives that weigh more than 60 lbs. each, and those of less weight will be kept and sold for stocks.—A. PETTIGREW.

A FIFTEEN-YEAR-OLD SWARM OF BEES.

EARLY in July, 1859, I put a swarm of bees in a common box hive made of rough hemlock boards 12 inches square by 15 inches high. From this hive has issued a swarm every year until now.—SOL. CRANDELL, *Chatham Village, Col. Co., N.Y.*

[I may mention a parallel case. Some fifteen years ago I called on Mr. Samuel Brundrett, market gardener, Withington, near Manchester, to buy some hives of bees, when he showed me one which had swarmed annually for twelve years. It looked as if it had not been touched or raised off its board during the whole time. I have seen many old ones, and examined them internally. Their combs were black and tough enough, certainly. Every young bee leaves a pellicle or skin in the cell in which it is bred, and of course the cells of old combs become contracted by breeding in them. It has often been said that bees reared in old combs are smaller than those reared in younger ones; but we have frequently failed to notice the difference in size, and sometimes we have fancied they are less in old hives. Bees thrive better among young combs than they do in old ones, and young combs yield more honey than old ones; but I can easily believe that the combs of a hive may be used by bees for fifteen or twenty years if they be kept dry and free from foul brood. Too much honey and farina in hives hinder breeding and do harm. In nine cases out of ten, hives three years old have too much farina in their brood combs, which clogs their operations.

A New Zealand bee-keeper, now in this country on a visit, called to see me the other day. He first described how bees were managed in that colony. The bees are kept in plain boxes about 12 or 14 inches square. When full, boxes as large are put on them as supers. He had taken 80 lbs. of super honey from one hive last year. When the combs become black the empty boxes are placed below them, and when full they are destroyed for their honey. In this way the boxes are refilled with young combs. Thus, as here, swarming takes place, and is not prevented by supering in every case.—A. PETTIGREW.]

DOGS.—No. 6.

WIRE-HAIRED TERRIERS.

PROVIDENCE that "suits the wind to the shorn lamb," has very beautifully and mercifully suited the dog's coat to the climate in which he is born. Take a few instances in proof of this. Look at the Siberian dog, the dog that in teams draws his master's sledge over the frozen snow. How very long and rough is his hair! how easily from it falls the snow, and how difficult for the snow to penetrate to the skin! Surely his coat is fitted to his climate. Then the Mount St. Bernard is another snow-fitted dog as to coat; and mark you, the rough one is the right one. Then the Scotch colley, the rough one again is the right one. How his hard thick coat which no rain, not even that Scotch mist which the proverb says "wets an Englishman to the skin," can reach his skin. Then there is the Scotch deerhound, rough and warmly clad; the Irish greyhound who can face dank Ulster's climate with his rough warm coat. There is the Scotch terrier with his warm hard coat, fencing well his hide. The Russian greyhound is another example who has actually bushy hair; while the Siberian dog before mentioned has long hair even on his head and paws, so well protected he against that cold climate. If I look at the naturally swimming dogs, I see again the adaptation of the dog's coat—as

the Newfoundland, the Irish water spaniel; I see in them a like merciful arrangement. And I imagine that all the dogs originally in this chilly island of ours were rough-coated—i.e., warmly clad—coat fitting climate. If it be true that the modern otterhound is the true representative of the southern hound, my argument is much strengthened, for the otterhound is warmly clad.

But how about the English terrier? What was he in olden time? Not, I verily believe, the smooth-skinned sleek creature of to-day's civilisation. Was he, like the Scotch terrier, very long-coated? I also think not. Scotland is much colder than England. The Scotch sheep-dog is much more warmly clad than the old-fashioned, bob-tailed, hard, wiry-coated English sheep-dog. What, then, do I believe the English terrier to have been as to coat? I believe him to have been wire-haired. This is a particular kind of coat, but it is admirably suited to the dog's work and ways. Long hair would hinder him, but he is exposed to climate in bad weather. Look at his coat: he has a thorough good loin-cloth as ever man wished for, or had on his favourite horse on a bitter December day, when the rain is falling in torrents. Then the mist may fall on his head, but it only hangs on his thick moustache, and can easily be shaken off; and his chest has a like rough warm cover. In fact, taking the climate of England, he is as well and sufficiently covered as even the Scotch terrier is for the climate of Scotland. The wire-haired dog should have a coat somewhat like cocoa-nut fibre, in no case silky or approaching to silky. This wire-haired terrier, called in books sometimes and rightly, "the old-fashioned hard and wiry-coated dog," is not now often seen, but he is, I believe, the genuine English terrier, the best of all terriers suited for work in this cold, damp, east-wind-pestered climate. If you look at the terrier in Bewick's "*Quadrupeds*," you will find such a dog; and any old book represents a terrier rather rough than smooth.

In regard to the value of wire-haired terriers I give the following anecdote, which is less than a year old:—A relation of mine who lives in the midst of a hunt famed all over England, was talking one day last winter with the man who has the care of the terriers (both kinds are kept, the wire-haired and the smooth), and he asked him which he preferred for work. The reply was, "Well, sir, these smooth ones are good for anything, capital dogs sir, but then they shiver so on cold days. They are all right such days as this (it was a lovely sunny winter day), but the rough ones don't shiver, and bear the cold and wet best, so I like them the best." The smooth-haired fox terriers are charming dogs and to them I shall devote a paper; they will face anything, will go into any damp drain, and some will swim well; but, oh! how they suffer in cold weather. The pluck is in them, the heart is all right, but man has robbed the poor dog of that warm covering which was intended to keep him secure and safe in damp earth, or mud, or winter's water. Man alters for fancy and for eye, but I doubt whether he ever improves, so far as usefulness is concerned. In olden days it was rather sport than fancy; and although I cannot and will not uphold cruel sports, yet I must say there is some cruelty in making, so to speak, a terrier work in the cold without his coat on, the coat his Creator gave him for protection and comfort too. I dub, therefore, the wire-haired terrier, now seldom seen, as the genuine old English dog of this breed. He is a dog, like all terriers, very companionable, a cheerful dog; and if he follow a one for miles in the wet and cold, one does not feel that he is suffering as the smooth dog does, when, covered with mud and chilled to the bone, he looks up with a pitiful face as much as to say, "Oh! master, I wish I had a warm coat, but your race, mankind, has robbed me of it." I have often felt very sorry to see a poor smooth-haired terrier in thorough bad case from wet and cold.

The wire-haired terrier class has not as yet been a large one at shows, not even at Birmingham. Their chief breeder, as far as I know, is Mr. Wootton of Mapperley, whose dogs I have seen and admired at Birmingham, and a photograph of some of his dogs, certainly the right sort, is now before me. I regret much that the wire-haired terrier is not among that admirable series of photographs of prize dogs painted by George Earl, the painter, to my mind, of dogs now Landseer is no more. His fox terriers, his English terrier, his bull terrier, are admirable and life-like; but why has he omitted the wire-haired, the oldest of all? If I am told that the wire-haired is a vermin dog, I reply, Of course he is, that was what he is intended for? Are there no vermin in England still? Have the rats gone back to Hanover? Are stoats, weasels, polecats no more? Besides, he is more than a vermin dog—he is that and more too—what dog better when rabbits are to be killed?

I have said that all terriers are companionable, sprightly, cheerful dogs. Years ago—I was but a boy then—I made, in company with my father, a driving journey of between thirty and forty miles into Norfolk. A wire-haired terrier was with us as merry, and active, and inquisitive—bolting into this hedge, through that gate—the last few miles as he was the first few. Weariness he did not seem to feel. Was not that warm coat of

his a supporter of his strength? Well, the last few miles the road ran across a rabbit warren, and oh! the dog's delight then. Never had he seen so much game before; never did he enjoy such sport. "Rabbits young, and rabbits old; rabbits hot" with running, "and rabbits cold" with fear, were around him. The place was alive with them, and he quite forgot his long journey. My readers can imagine my boyish delight—I kept rabbits then—at seeing such a number of rabbits out feeding in the moonlight, the games they played, some out from their nests for the first time; little rabbits, half grown rabbits of all sizes, eating, playing, scampering, and racing-off as the dog approached. But turning my thoughts to old times, I must call up another scene connected with wire-haired terriers. There was an old man I knew and loved to watch who was a rat-catcher—a little old man, a bent old man, who looked more bent because on his back was always his box of ferrets. He had a hump on his back, and I never knew he wore a loose old coat where the hump ended and where the ferret-box began. He wore a cap, I fancy of cat skin, and he smoked so short a pipe that my wonder was he did not burn his nose; I looked upon that nose as a kind of salamander. On an autumn or winter's morning I used to see this old man tramp off from the town to the fen farms with his team of dogs, everyone wire-haired, usually white with a touch of colour on eye and ear, one or two might be black and tan. Now this old man was worth nothing but his dogs and his ferrets, his clothes, pipe included, counting for nothing; but he would not sell one of those dogs. He kept to one breed, and no one in that town could get one of him for fear the breed should make another rival in his trade. Poor old man! a grim silent man, so different to the merry dogs that were always with him. He was full of employment, and I connected him in my mind with the sound of the flail which I used to hear for weeks and weeks in the fen barns. I distinctly remember that the old man's dogs were smaller and not as wide in the head as those usually seen of the wire-haired breed.

In now drawing to a conclusion my remarks on the wire-haired terrier, I would say, Why should not breeders take up this dog and improve him? Narrow his head by crossing with a good coarse-haired but well-shaped fox terrier; both dogs have the heart in them. Some fox terriers, the best of them, have hair of such a texture as shows clearly that they are related distantly to the wire-haired. Cross these two; make a pretty dog, not a large dog; show such dogs clean, and I venture that, the eye being pleased and humanity being pleased by a thick coat being again put on the terrier's back, such a breed would in time be a success—a prettier dog, neater in shape, straighter legs, narrower head, with nice markings. The moustache gives a quaint look, and the pluck being there, as it would be, such a dog would be popular, and the genuine old English terrier, for such I believe the wire-haired to be, would be worthily represented.—WILTSHIRE RECTOR.

OUR LETTER BOX.

OXFORD POULTRY SHOW (T. L.).—The entries close on the 12th inst., as you will perceive on reference to our list.

BANTAM PULLET AILING (G. H. R.).—Give your pullet a dose of a teaspoonful of castor oil, and notice if her evacuations afterwards be green and loose. If so, repeat the dose at twelve hours' interval. Give her no corn or hard food, but soaked bread, oatmeal, and growing green food.

SILVER PHEASANTS (J. P. Highgate).—There are but few buyers for a Silver cock Pheasant or for hybrids. We should advise you to advertise them, or to exhibit them as extra stock at some poultry show.

CONDITIONAL SALE (J. Ashworth).—You had not absolutely purchased the Silver Poland hen; she was to be sent to you for approval. Before being sent she won the first prize at Birkenhead, and thereby her value was increased, a circumstance which neither you nor Mr. Fearley the vendor contemplated at the time the price was named. We therefore cannot consider you entitled to claim the hen either legally or equitably.

PEARS (H. Williams).—In making perry the pears should be ground and pressed exactly in the same manner as apples in the making of cider; but the reduced pulp should not be allowed to remain any length of time without being pressed. In Herefordshire, or the counties in its vicinity, it has never been the practice to blend the juices of the different varieties of the pear in order to correct the defects of one kind by the opposite properties of another. It is, however, thought more easy to find the required portion of sugar and astrinency, as well as flavour, in three or four varieties than in one; therefore, it is supposed a judicious mixture of fruits affords a prospect of great benefit. In grinding, the pulp and rind of the pear, as in the apple, should be perfectly reduced; and though no benefit is said to be derived from the reduced pulp remaining some hours unpressed, yet there is no doubt but, where all other circumstances are the same, that portion of liquor will, for the most part, be found the best which has remained the longest under the power of the millstone. The juices of the pear and the apple are constituted of the same component parts, but the proportions are different. In the juice of the pear the tannin principle is predominant, with a less portion of sugar, mucilage, and acid matter. Perry requires nearly the same sort of management during the process of fermentation as cider, but it does not afford the same indications by which the proper time of racking it off may be ascertained. The thick scum that collects on the surface of cider seldom appears on the juice of the pear, and during the time of suspension of its fermentation the excessive brightness of the former liquor is rarely seen in the latter; but, where the fruit has been regularly ripe, its produce will become moderately clear in a quick time in a few days after it is made, and it should then be drawn off from its gross lees. To prevent an excess of fermentation the same means are used as in making cider, and the liquor is rendered

perfectly bright by isinglass. For this purpose the isinglass should be reduced to small fragments by pounding in a mortar, and afterwards steeped twelve or fourteen hours in a quantity of liquor sufficient to produce its greatest degree of expansion. In this state it must be mixed with a few gallons of the liquor, and stirred till it is diffused and suspended in it; and it is then poured into the cask, and incorporated with the whole by continued agitation for two or three hours. This process should be repeated till the required degree of brightness is obtained, the liquor being each time drawn off on the second or third day from its precipitated lees. About 1½ oz. or 2 ozs. of isinglass are generally put into a cask of 110 gallons at once. Were its mode of action purely mechanical there could be no objection to a larger quantity; but it has also a chemical action on the liquor. It combines with, and carries down, the tannin principle; and hence, during the process of fining, the liquor is deprived of a large portion of its astrinency. This substance is most readily diffused in liquors by boiling; but by this it is dissolved and converted into glue, and its organisation, on which alone its powers of fining depend, is totally destroyed. But when perry can be made sufficiently brown without it, it is better not to use the isinglass, as the liquor is rendered extremely agreeable to the eye by it, but is thought to become more thin and acid by its action. In the after-management of perry the method is the same as that of cider; but it does not bear situations where it is exposed to much change of temperature so well, and its future merit cannot be so well judged of by its present state. In the bottle it almost always retains its good qualities, and in that situation it is best to be put, if it remains sound and perfect, at the conclusion of the first succeeding summer.—(Household Encyclopedia.)

METEOROLOGICAL OBSERVATIONS,

CAMDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W., Altitude 111 feet.

DATE.	9 A.M.			IN THE DAY.							Rain.	
	Baromet- er at Sea and Sea Level.	Hygrom- eter.		Direction of Wind.	Temp. of Soil at 1 ft. deep.	Shade Tem- perature.		Radiation Temperature		In. sun.		On grass.
		Dry.	Wet.			Max.	Min.	deg.	deg.			
1874. Sept. and Oct.	Inches.	deg.	deg.		deg.	deg.	deg.	deg.	deg.		In.	
We. 30	29.511	55.8	50.9	S.W.	57.9	65.8	51.4	101.4	49.9		0.291	
Th. 1	29.513	61.0	55.8	S.W.	58.1	68.1	55.1	102.6	53.2		0.585	
Fr. 2	29.493	51.3	53.3	S.	57.4	59.8	46.9	87.0	45.7		0.156	
Sat. 3	29.502	51.3	45.7	W.	54.5	58.5	42.0	105.0	33.8			
Sun. 4	29.497	52.2	49.4	S.W.	52.0	55.3	47.3	94.2	42.9		0.250	
Mo. 5	29.451	45.6	44.0	W.	51.9	56.8	37.6	103.5	36.0			
Tu. 6	29.372	51.6	47.7	S.W.	50.9	57.1	34.3	78.9	33.6		0.433	
Means	29.634	53.3	49.7		54.7	60.2	45.0	95.8	43.0		2.449	

REMARKS.

30th.—Rain before 9 A.M., and after 9 P.M. at night, but very fine between those hours.

October 1st.—Rain all night; but fine morning, and till 3.40 P.M., when it began to rain, continuing more or less all the day and night; thunder at 6.49 and 7 P.M.

2nd.—Fine morning; mock sun E of true sun at 7.12 A.M., and W of true sun also from 7.15 A.M.; heavy rain at noon for a short time; fine double rainbow at 5 P.M.

3rd.—Fine morning, and very pleasant day, though much colder.

4th.—Rain commenced at 9 A.M., and continued till noon; fine afterwards, but cold.

5th.—Fine all day, but more especially so in the early part; fine night.

6th.—Fair morning, but soon clouded over, and the day was dull and cloudy; rough wind at night.

Cooler and a very wet week, the rainfall being nearly 2½ inches.—G. J. SYMONS.

COVENT GARDEN MARKET.—OCTOBER 7.

MARKETS remain steady; the supply of vegetables is, however, falling off, the principal attendance being on the Saturdays. Foreign Grapes large, supplied with other descriptions of continental produce.

FRUIT.

	s.	d.	s.	d.		s.	d.	s.	d.
Apples.....	1	0	0	0	Mulberries.....	3	10	0	0
Apricots.....	doz.	0	0	0	Nectarines.....	doz.	0	0	0
Cherries.....	1 lb.	0	0	0	Oranges.....	100	12	0	0
Chestnuts.....	1 bushel	0	0	0	Peaches.....	doz.	8	0	0
Currants.....	1 sieve	0	0	0	Pears, kitchen.....	doz.	2	0	0
Black.....	do.	0	0	0	Pears, dessert.....	doz.	1	0	0
Figs.....	doz.	0	0	0	Pine Apples.....	lb.	2	0	0
Filberts.....	lb.	1	0	0	Plums.....	1 sieve	3	0	0
Gooseberries.....	1 quart	0	0	0	Quinces.....	doz.	0	0	0
Grapes, bothhouse.....	lb.	1	6	0	Raspberries.....	lb.	0	0	0
Lemons.....	100	8	16	0	Strawberries.....	1 lb.	0	0	0
Melons.....	each	2	0	0	Walnuts.....	1 bushel	10	0	0
					ditto.....	100	1	0	0

VEGETABLES.

	s.	d.	s.	d.		s.	d.	s.	d.
Artichokes.....	doz.	8	0	0	Leeks.....	doz.	0	3	0
Asparagus.....	100	0	0	0	Lettuce.....	doz.	1	0	0
French.....	doz.	0	0	0	Mushrooms.....	potte	0	2	0
Beans, Kidney.....	1 sieve	1	0	3	Mustard & Cress.....	pannet	0	2	0
Broad.....	1 bushel	0	0	0	Onions.....	1 bushel	3	0	0
Beet, Red.....	doz.	1	0	0	Pickling.....	1 quart	0	5	0
Broccoli.....	1 bundle	0	9	1	Parsley per doz. bunches.....	doz.	2	0	0
Brussels Sprouts.....	1 sieve	2	0	0	Parsnips.....	doz.	0	0	0
Cabbage.....	doz.	1	6	2	Peas.....	1 quart	0	0	0
Carrots.....	1 bunch	0	4	0	Potatoes.....	1 bushel	2	0	0
Cauliflowers.....	100	0	0	0	Radishes.....	do.	3	0	0
Celery.....	1 bundle	1	6	2	Radishes.....	doz. bunches	1	0	0
Coleworts.....	doz. bunches	2	6	0	Rhubarb.....	1 bundle	0	9	1
Cucumbers.....	each	0	1	0	Salsify.....	1 bundle	1	0	0
Pickling.....	doz.	0	0	0	Scorzonera.....	1 bundle	1	0	0
Endive.....	doz.	2	0	0	Shallots.....	1 lb.	0	0	0
Fennel.....	1 bunch	0	8	0	Squash.....	doz.	0	0	0
Garlic.....	1 lb.	0	8	0	Tomatoes.....	doz.	0	6	0
Herbs.....	1 bunch	0	3	0	Turnips.....	1 bunch	0	4	0
Horseradish.....	1 bundle	3	0	4	Vegetable Marrows.....	doz.	1	0	0

WEEKLY CALENDAR.

Day of Month	Day of Week	OCTOBER 15—21, 1874.	Average Temperature near London.			Rain in 43 years.		Sun Rises	Sun Sets	Moon Rises	Moon Sets	Moon's Age.	Clock after Sun.	Day of Year.
			Day.	Night.	Mean.	Days.	m. h.	m. h.	m. h.	m. h.	m. h.	Days.	m. a.	
15	Th	Virgil born, 15 B.C.	59.0	40.5	49.8	21	23 at 6	6 at 5	after.	51	6	5	11 10	288
16	F	Valerius died, 1730.	59.0	40.1	49.5	14	27 6	1 5	11 1	39	7	6	11 22	289
17	S		58.8	40.7	49.8	19	29 6	2 5	4 2	39	8	7	14 31	290
18	SUN	20 SUNDAY AFTER TRINITY.	60.4	40.7	50.6	21	31 6	0 5	4 2	53	9	7	14 46	291
19	M		59.4	41.7	50.5	22	33 6	57 4	12 3	15	11	9	14 57	292
20	Tu		59.0	39.2	49.1	20	31 6	55 4	31 3	morn.	10	10	15 8	293
21	W		58.4	39.5	49.0	18	35 6	53 4	50 3	43	0	11	15 17	294

From observations taken near London during forty-three years, the average day temperature of the week is 59.19; and its night temperature 40.3. The greatest heat was 74, on the 15th, 1812; and the lowest cold 20°, on the 21st, 1812. The greatest fall of rain was 1.04 inch.

ADAPTING ONESELF TO CIRCUMSTANCES— STRAWBERRY CULTURE.



GARDENING would be a very easy affair if it could all be done by rule and line. If all the soils, seasons, and climates were alike we should not need twenty or thirty years' apprenticeship under various conditions to get acquainted with the rudiments of our profession; the merest tyro in possession of a well-written calendar of operations and a clear head would be nearly on a level with the oldest practitioner. Certain work done

at certain times and in one particular manner would produce certain results on a day pre-arranged by the writer. Whether we should be any better or happier if our numerous little excitements and disappointments were all removed I am not prepared to say; but as things are, it is very plain that he is the best gardener who can best adapt himself to circumstances. Read the calendars certainly. I read all, including those of villa and suburban gardening, and although both villas and suburbs are far away from me I always find some little hint that is likely to be of service to me; but in reading, one should know and bear in mind the circumstances under which the writer is placed, remembering that under different conditions if the directions given are fully carried out the result will sometimes be utter failure, or, to say the least, labour will be needlessly wasted. Mr. Douglas, for instance, than whom a more painstaking calendar-writer could not exist, tells us that Strawberries succeed best with him when the beds are renewed every year; and all who know Mr. Douglas know that he would not recommend a thing to be done in a manner he had not experimented on, and which he did not think he had conclusively proved to be the best plan. On the other hand, Dr. Roden, whom everybody knows to be a successful raiser and grower of Strawberries, says (a little too harshly, I think) that either Mr. Douglas's cultivation or his soil is at fault. Now it is very plain to me, and to all who read Mr. Douglas's articles carefully, where the fault is. It is in the soil, and many a man with such a soil would give up the attempt to grow Strawberries altogether. Such, however, is not the policy of a good gardener: he battles against his disadvantages, overcomes seeming impossibilities, and not only grows fruit, but actually grows it better than his neighbours who have every possible advantage, and who, consequently, do not bestow the same amount of care and skill. Tell an enthusiastic lover of his profession that a thing is next to impossible, and you are certain to have it done well.

Now I have the advantage of commanding the best Strawberry soil I ever saw—possibly Dr. Roden's soil is somewhat similar—enormous crops of good fruit are annually produced if no particular attention is bestowed on the plants; but, of course, a little attention properly given makes an improvement in quality. Like Mr. Douglas, I find the finest fruit produced on one-year-old plants, and if I had not a good Strawberry soil I should

be inclined to renew every year, but in my clayey loam the fruit is much more abundant, although not quite so large the second and third year. After the third or fourth year the flavour begins to deteriorate, as well as the size. The total weight of fruit, perhaps, increases as the plants get older and larger, but we do not grow Strawberries any more than Gooseberries solely for weight.

My practice is to plant some afresh every year, and destroy all that can be spared of those that are three years old. A great many forced plants are also utilised and produce good results for a couple of years.

A clayey soil where Strawberries have not been grown before produces the best flavour as well as the finest fruit. I have, however, found one exception to this. There is one very popular Strawberry that I could not get a respectable dish of fruit off for two or three years; it grew tremendously, and produced leafstalks half a yard long, but no fruit worth looking at—it was President. I read in "our Journal" that it was a good variety for forcing. I tried it, and the results were even worse than those obtained out of doors. There is a patch of ground at one corner of our garden which lies high above the rest, and which at some time long ago has been made up with a lot of sand and peaty soil for growing American plants. The President was impeached and banished to this sterile spot, and the result was remarkable. Every season it produces most abundantly, and keeps up a succession of prime fruit for fully three weeks. This last dry summer was no exception, and the ground was never once watered. I have tried other kinds along with it on the light soil, but have not yet found another one succeed. I think, therefore, I am quite safe in recommending those whose soil is too light for other Strawberries to give President a trial. I do not know a Strawberry of better quality.—WILLIAM TAYLOR.

ABOUT MELONS.

I SUSPECT many besides Mr. Meacock have found Melons which answer their purpose better than the "everybody-pleasing Victory of Bath." What is the good of it to the amateur with a cold frame or pit with a very limited supply of materials for heat, or none at all? Will it grow in a frame or pit upon a spent hotbed which has been employed for striking cuttings and forwarding plants from seed? Will it set its fruit, grow to a good size, and ripen perfectly without any heat afterwards beyond that afforded by the sun? Is it for those who have unlimited means for heat, so free a setter, so early a ripener? Will it swell so well late in autumn and winter, and keep for so many days in good condition after being ripe, as the Melon which Mr. Gilbert seeks to disparage—viz., Little Heath, which, if not its equal in pleasing everybody with its flavour, is more than its match in hardness, free-bearing, appearance, and general usefulness? "Everybody," as I accept the term employed by Mr. Gilbert, represents the greatest number, and not the greatest means. What is the number of those growing Melons in frames or pits

with but gentle warmth at first to give the plants a start, as compared with those growing them in pits or houses with heat throughout? Scores, nay hundreds, can afford to grow Melons if it can be accomplished—as it is with Little Heath—in a frame or pit which has been placed over a hotbed for raising plants from cuttings or seeds; but if they have nothing better to do it with than Victory of Bath, they will have long to sigh for the flavour “pleasing everybody.” The latter variety is of no use for cool treatment, but Little Heath is.

Flavour in Melons, what is it, and how does it come? Of kind? If it results from kind, why is it not fixed? The highest flavoured always are so, at every exhibition taking off first honours. How are we to reconcile ourselves to flavour existing one season in the new varieties, whilst in another we find it in the old? If flavour results from kind, how is it that not one of the new equals the old? The flavour must either be lost in the crossing and recrossing resorted to, or alleged, or it cannot be transmitted by any act on the part of the most skilful and experienced operator. Judgment, backed by long experience and close careful observation, can and has effected great variation from the original, in most instances resulting in improvement in some way, but it is seldom we have any improvement in flavour. Let anyone grow all the new kinds, whose name is legion, and compare them with the old, flavour to be the test of merit. Put the round green-flesh, and the oval green-flesh as well, against the Egyptian, selecting its best form, Bailey's Green-flesh; put the white and yellow oval forms, or round, against the Persian, taking Meredith's Cashmere as the best form; put all the scarlet-fleshed against Scarlet Gem, which is the best form of the old true Small-scarlet Scarlet or Red-flesh, and then tell us which of the new ones with their admixture of Cantaloup, Rock, and other blood, is equal in flavour to any of those named? We shall by a trial such as this be able to arrive at a solution of the great question, Which is possessed of the best flavour? Not till then shall I set much value on the effusions of Melon-raisers.

By accident rather than design have originated our best-flavoured Melons and other fruits. The *modus operandi* of imparting flavour remains to be revealed. High or ill flavour is in each kind to be found in the superior and inferior treatment to which it is subjected, but no one can give to a poor-flavoured sort flavour surpassing the original. Subjects of high flavour occasionally occur and most unexpectedly, often when a very different result is anticipated. I may mention a case in point. I have grown, I think, every kind of Melon at one time or other, and tested most for flavour—the “everybody-pleasing” Victory of Bath not excepted, not one of them satisfying in all points, and especially in flavour. Not before this year did I attempt anything with Melon-crossing. I had some old sorts which I thought might be useful, and amongst them fished out Mounsdon's Moreton Hall, which I did not wish to lose. Last time it was sown (four years ago), its accompanying plant in a two-light frame was to the best of my recollection Will's Oulton Park Hybrid. Both are scarlet or salmon-fleshed, Moreton Hall oval, and Oulton Park round. The fruit of the kind sown for Moreton Hall this year is roundish-oval—more round than oval, and the flesh a compound of salmon, green, yellow, and white. It was only moderately netted, and slightly high coloured (yellow), on the side next the sun. I was surprised on cutting it, and more so when taking a thin slice, to find what I had got. That one taste was enough. Others not unacquainted with the flavour of Melons, said upon the first taste that it was the best they ever tried, so rich and juicy. I attempted to cross it with other kinds, but the flower refused the foreign pollen, and the pollen applied to other varieties was equally ineffective. A correspondent of this Journal sent me two or three years ago from Haddington or its neighbourhood a few seeds of a scarlet-fleshed Melon, having the recommendation of its not being subject to cracking when approaching ripening. Its form the first year I had it was oval, slightly netted, thick short footstalk, rind thin, white, mottled with green, and hard; flesh thick, melting, and well-flavoured, colour scarlet. It was a free grower, not a free setter, and the fruit did not crack. Now this Melon has in the present year a fruit nearly round, slightly netted, and the flesh is not scarlet but green with a tinge of red in the cavity of the seed. The kind was raised upwards of thirty years ago, if I remember rightly, and is not in commerce. The flavour is not improved, but if this should meet the eye of the correspondent who sent it, I will gladly give him a few seeds of this Melon in its altered form.

Now, will anyone explain to me why these Melons should change from scarlet to green flesh? Why should these two have green flesh and not Read's, Duke of Edinburgh, and Cirencester Prize? Some agent had been at work, no doubt. What can it have been? Crossing? If so, and the change from scarlet flesh to green gave flavour to one, why not to the other? In conclusion I will name a few varieties. These are—

SCARLET-FLESHED.

Little Heath, succeeding in a cold frame with a little heat at starting, or without it. It is scarlet-fleshed, and not despicable in flavour. Valuable also for early and late work.

**Read's*, very free setting, of good size, round, handsome, finely netted, without ribs.

Duke of Edinburgh, oval, moderately netted, slightly ribbed, large, and handsome; rind mottled.

GREEN-FLESHED.

Colston Bassett, round, moderately netted, medium size, free bearing, flesh very pale green, nearly white.

Victory of Bath (Gilbert's), very handsome, round, free-bearing.

**Cashmere* (Meredith's and Gilbert's), fine, oval; well-known.

Royal Horticultural Prize, oval, free-bearing, thin rind, flesh thick, melting, and rich.

WHITE-FLESHED.

**Golden Gem*, round, very handsome, large, and luscious flavour.

Queen Emma, oval, large, and handsome. It may be said to be an improved Hackfall Hybrid, but that kind is excellent and very free-bearing. Both are large.

I have omitted Scarlet Gem and Beechwood; the latter when true is one of the best green-fleshed kinds, and it has remained longer in the seed lists than many, and it will again come to the front, if we have it not already in a round, large, finely-netted kind in a new guise. Bailey's Green-fleshed I have also omitted, as it is too much ribbed; without its ribs, and with its high flavour, it would be simply unapproachable.—G. ABBEY.

ZONAL GERANIUMS FOR AUTUMN DECORATION INDOORS.

In October it is difficult to cut many presentable flowers from beds or borders, chilly autumn rains with frosty nights having placed their mark upon the outdoor garden. Nevertheless, flowers will be wanted, and they are, I think, more enjoyed then than when there are so many to be seen around. In October, and till the Chrysanthemums come in, it is generally a trying time to keep vases filled, but zonal Geraniums have so well filled-up the gap for me, that a note on the subject may be of service to others. For diversity and brightness of colour, to say nothing of the ease of culture, there are few plants equal to them; no green fly, thrips, mealy bug, mildew, or scale troubles them or takes up their grower's time. Neither do they require peat brought from Kent, or sand from Bedfordshire. Use turf cut from an old pasture, or parings from the sides of the road, stacked in narrow ridges, with a layer of rotten manure between every 3-inch layer of sods. To this, when a twelvemonth old, add a little sand or grit, also some leaf mould if the turf has little fibre. My soil is miserably poor, no fibre in it, and I use a little bone dust and some wood ashes, which appear to give a better colour to the flowers.

I take off my cuttings in spring for autumn flowering, so as to avoid diminishing any of the summer bloom, which would be inevitable if I took them in time to have them rooted before the cold damp days and long nights came. In the beginning of March, having a little Cucumber pit at work, a sandy mixture is prepared, some 3-inch pots well crooked, and in each of these one cutting is inserted and labelled with its name. The cuttings are placed on a shelf in the pit, slightly shaded, and carefully watered till rooted. As soon as the roots show freely round the outside of the ball the plants are shifted into 5-inch pots, using the compost mentioned above. Those not so well rooted go into 4-inch pots. Sometimes they are potted while in the Cucumber pit; sometimes they are hardened off a little and put in theinery. It is immaterial which mode is adopted. If I am late I pot them and keep them in the pit. Beware of too much heat, and they must have abundance of water. Do not saturate the soil on the one hand, nor, on the other, keep them so dry as to cause flagging. A very common practice is to pot and remove the plants to another place. This gives

* These are the best of each colour, the selection being restricted to one kind.

them two checks. Gradually harden them off, and remove to a cold frame by the middle of May, and from the frame to an open position out of doors, or, as mine are for want of a better place, to the sunny side of a walk. By this time they are ready for a shift into their blooming pots, which are 7 inches in diameter, as for our houses these are the most useful, with a few smaller for the front rows.

Throughout the summer the plants should be looked over and all flowers picked off, stopping any gross shoots that may need it. Few, however, require stopping if the flowers are kept picked off. They branch much more freely, forming neat little specimens without the aid of stakes or wire, showing the natural habit of the plant, and giving in October two or three dozen heads of blooms, and some produce more, according to the variety.

Give the plants plenty of water throughout the summer, and let them have full exposure to the sun and dew. By September they will have their pots full of roots, and their wood firm and well ripened. About the first week of the month they are removed to a pit where a crop of Melons has been grown; here they have plenty of air night and day, the flower buds are no longer picked off, and once a-week liquid manure (guano generally) is given. Never apply liquid manure to a plant when dry; water it first with clear water. Many hundreds of plants are spoiled by neglect of this little precaution. For ten days or a fortnight they are watered overhead through the rose to counteract the dryness of the air under glass. When they show flower freely they receive more liquid manure, and are removed to the greenhouse. Here they produce a fine display of bright-coloured flowers when things outside look anything but cheerful. By giving the plants a little heat just to keep the air dry and moving they will continue in flower till Christmas.

Amateurs who have but a small house in which *Chrysanthemums* take up much room, will find that zonal *Geraniums* treated in this way will enable them to keep their house gay in the dullest months until the earliest *Primulas* and *Cyclamens* come in, the same temperature suiting all. The main evil to guard against is damp; therefore the ventilators should always be open a little night and day, giving also a little fire heat, which will make the house all the more enjoyable.

After blooming, the plants are set thickly together in the vinery, and in March the cuttings are taken off and the old plants cut back. After they have commenced to grow they are shaken out and repotted in the same size of pot, and used to decorate the greenhouse in summer and to fill vases for outdoor embellishment.—W.

NOVELTIES IN THE ROYAL GARDENS, KEW.

SONCHUS LACINIATUS, an arborescent Thistle from the Cape de Verd Islands, is much to be recommended for table decoration. There are several plants in the Cape house. Plants grown with a single stem are best, the leaves arch gracefully, are pectinate and oblong in outline, of a pale green, with a midrib nearly white. It is grown from cuttings, selecting the small side shoots that can be taken off with a heel. They should be kept cool at first, but after a time slight heat is beneficial. Though many consider it a rule that cuttings should be given a higher temperature than the plants from which they were taken had been accustomed to, it is found that cuttings with difficulty rooted sometimes strike better if allowed the same, or even a little lower degree of heat. The reason for this appears evident. With cool treatment they are not excited to increased action, with consequent demand for nourishment, as they are when subjected to heat, in which case they may be exhausted before roots can be formed.

Young plants of *Grevillea robusta*, the Silk Oak of Australia, are very valuable for decorative purposes, illustrated by several plants in the conservatory. They are best raised from seed, which may be sown in April with bottom heat. Handsome plants may be grown in two years, having large Fern-like leaves, and which, when cut, are useful from their durability and elegance—qualities that suggest its use for subtropical effect. The soil may consist of equal parts loam and peat.

Pancratium speciosum, in the Palm house, is one of the finest things in flower. It has magnificent heads of pure white flowers, with long narrow segments. In habit it is much like the *Enchais*. The flowers are as ornamental when attached to the plant, but are not so generally useful when cut. Rich loam is the best soil that can be used. The bulbs may be grown singly, or several together. The same culture as for *Enchais* may be applied with success.

In the herbaceous ground a large proportion of the *Asters* are in flower, of which there is a fine collection. *A. Chapmani* is one of the best, and is also little known. It is of merit sufficient for a choice selection. The stems attain a height of 1 to 5 feet, and bear lilac flowers.

FOSTER'S WHITE SEEDLING GRAPE.

Foster's White Seedling is described by nurserymen as the offspring of the Royal Muscadine, and similar to its parent, but superior in appearance, flavour, habit, and season. One nurseryman, though, calls this Vine White Lady Downe's, an *alias* for its proper name. Of course he does not mean the White Lady Downe's of late introduction, said to be raised from the Black Lady of that title. The nurseryman I mention appears to apply the name of White Lady Downe's to Foster's White Seedling from a similar observation, probably, to my own; for I have observed Foster's White Seedling to ripen later than its reputed parent both in fruit and wood; in fact much the same as Lady Downe's ripens, and to hang, too, not dissimilar to the latter in duration. Some time ago I also noticed a writer in the *Journal* mention Foster's White Seedling as a Grape hanging well, but I made no note of reference, much as the passing thought impressed my mind.

Can you or any of your readers tell us if the nurseryman I have mentioned and I are right in our conception of Foster's White as a White Lady Downe's in ripening and hanging properties, thus differing from the Royal Muscadine in these features?—READER.

THE FLOWER BEDS AT THE CRYSTAL PALACE.—No. 1.

THAT the Managers of the Crystal Palace do recognise the fact that something more than the provision of amusement for the people is expected from them, and show by their measures that they seek to attract the attention of men of thought and culture as well as that of the mere sightseer, is an undoubted fact. Faults and errors there may be in many of its parts and features; but these things, it must in common fairness be granted, are inseparable from such a gigantic institution, and to what extent they prevail must always remain a matter of opinion. Of course there are art rules by which such things may be tried, but then it is too often found that self-constituted critics are very apt to ignore rules, and boldly to resolve questions of taste from their own point of view.

Among the many beautiful objects at the Crystal Palace which are a great and decided success, the flower gardens, of which it is my particular province now to treat, have always filled a prominent position, ranking so high among our best gardens that annual reports of their arrangement and general appearance have always been expected and welcomed. But more than this: all who could, have visited the gardens year by year to seek instruction and to cultivate a knowledge of plants old and new, as well as of their arrangement. Knowing this, it was with much pleasure that I found decided evidence of improvement in the arrangement of the beds as well as of the plants; but still there is the old grievance of which I in common with other reporters have before had to complain—the plants are unnamed. Now, why is this? It may be that the presence of labels is regarded as a disfigurement, but this could of course be set aside by using very small labels of a neat if not elegant pattern, and so rendering the colour-combinations as instructive as they are beautiful. Of the general desire for this trifling concession there can be no doubt, for besides several groups of undoubted "blue aprons" in deep and earnest contemplation over the more striking beds, several persons applied to me for names while notetaking, showing by their remarks that they had evidently a wish to know all about the plants with which such wonderful enamelling could be wrought out, for the beds are certainly very beautiful, the panel or carpet style predominating, the whole of the designs being marked with geometrical precision, and composed almost entirely of plants having ornamental foliage.

It has already been shown what great importance is attached to the circular beds at Battersea, and here at the Palace the value of circles, and the facilities which they afford for an almost endless variety of designs, especially of an intricate character, is clearly demonstrated. The favourite succulent here for an edging is *Sempervivum californicum*, one row only being used with excellent effect. Golden Feather *Pyrethrum* is more used than any other yellow-leaved plant, and for

carpet bedding it appears quite indispensable. That it is worthy of this high position there can be no doubt, for apart from its great intrinsic value, the ease and facility with which a large stock may be raised from seed without artificial heat, places this unique plant at the disposal of everybody. Blue is the only important colour of which the blossom has a monopoly, all others being beautifully developed in the foliage. This fact, no doubt, caused the Lobelia to be found in all designs where blue was required, and the plants of it were generally in excellent condition, being healthy, full of bloom, and of a nice even growth—evidence that more than ordinary care and painstaking had been devoted to their selection and management. I allude to this because the Lobelias in many places have not been good this year; it may be that this is owing in some measure to the use of many of the worthless varieties which have been sent out during the last year or two. A really good strain of the true old *speciosa* is the best and safest kind to use, and all the newer introductions ought certainly to be tested more than once before they are introduced into a design. *Coleus Verschaffeltii* and *Alternanthera versicolor*, with others, such as *amona*, were in every group where crimson deep or bright, or carmine, was required, and undoubtedly with the best effect, for there was great richness and beauty combined with a quiet refinement of tone in every combination; not that this result was by any means owing to plants of one particular colour, but rather to the judicious selection and tasteful combination of several. Soft grey was not so prominent here as at Battersea, or rather I should say it was not much used in the carpet beds. By-the-by, why not term it enamel bedding? It is a much more expressive term for such artistic work. Feathery Fern-like masses and lines of greenery were used instead of grey to give tone and softness to those designs wherein bright colours most prevailed. Our old friend *Tagetes signata* *pumila* was the plant selected for this purpose, the growth being kept to a uniform height, and every flower kept picked off with such jealous care, that it was only by a very close inspection I could detect even a few buds, and these were being removed. Treated in this way it forms masses and bands of a lovely and novel character, and which have only to be seen to be appreciated. It was a good many years ago that I tried to produce a somewhat similar effect with *Geranium denticulatum*, but neither that nor any other can at all compare with the *Tagetes* for such a purpose. Of course it is not used for an outer row, all the beds here being on turf with which it would clash, but for a second row or central mass nothing can be more telling.—EDWARD LUCKHURST.

VINE CULTURE.

WEIGHT OF CROP, THINNING, DISBUDDING, &c.—Cropping Vines too heavily is a prevailing error in Grape-growing. Presuming that the rafter is—say, 24 feet long; that the young Vines are to bear to a third of this length the first year, and that the Vines show more than a bunch to each shoot—remove them all but one to a shoot as soon as they are far enough advanced to be got hold of; and after the berries are set—presuming that the bunches are large, as they generally are in young Vines—remove all but four bunches on every rod. This will leave eight bunches on a Vine. Of course, the largest and most shapely are generally left; and in most cases it may be presumed they will average at least 2 lbs. or more. This is crop sufficient for the first year in the case of permanent Vines. None of these bunches should be left on the leading shoots, which should not be stopped this year till they reach the top of the house. When the Vines are in full bearing, 14 lb. of Grapes to every foot run of the main stem of the Vine may be regarded as a fair crop.

In disbudding the side growths of young Vines, due regard must be had to a regular establishment of permanent fruiting points or spurs. From 16 to 18 inches apart will be enough; and this will generally call for the removal of two buds for every one left all along the main stem. These side fruit-bearing growths should be stopped two or three joints beyond the bunch that is left. This, generally speaking, will give foliage sufficient to clothe the whole roof, when the main stems are trained 3 feet apart. If there is room for a more lengthened growth, it should be allowed to those from which the bunches are all taken off. This gives foliage enough to sustain the Vines in vigour. Closer stopping has a tendency to weaken the Vines in time. Allow the lateral growths which spring from the axils of the leaves of these fruit-bearing shoots to form one leaf, and stop them, and do not allow them to

make more growth the whole season. A less number of large well-developed leaves is preferable to a greater number in a crowded condition.

As soon as the shoots can be tied down without fear of their breaking, carefully bring them down till they can be tied to the under sides of the wires. This operation must not be attempted at once. They must be brought down by degrees, beginning with them when their points have nearly touched the glass. Even when they can be tied down safely at one time, they frequently force themselves off the main stem in the course of a few hours. Shorten the laterals on the portion of the main stem which is not bearing to one leaf when the wood has become brown.

In thinning off the bunches to the number directed, make a partial thinning when the shoots are tied down, and the final thinning when they are out of bloom, except in the case of Muscats, the thinning of which should be left till it can be seen which bunches have set their berries most regularly. The thinning of the berries should take place, in the case of Humbergs and all free-setting sorts, as soon as the berries attain the size of Radish seeds. But with the shy-setting sorts it is best to delay their thinning till they are larger, and it can be seen which are properly fertilised and which are not.

SPUR-PRUNING FOR NEXT SEASON'S CROP.—It is now very generally admitted that the close-spur system of pruning is the best—i.e., to cut back this season's fruit-bearing growth to within an eye or bud of the main stem. In each succeeding year the pruning takes place back to the single bud at the base of last season's bearing growth. As the Vines get older, a cluster of buds generally forms at the spur, notwithstanding this close pruning. Only the strongest of those that grow are left to bear fruit. This close pruning is much preferable to leaving two or three eyes. Not only can the Vines be maintained for a longer time in a more manageable and slightly condition, but they yield more compact serviceable bunches, that swell their berries better than those long and looser bunches generally produced from buds further from the main stem. Prune, especially Vines to be forced early, immediately they have shed all their leaves. The wounds should always be dressed with styptic to prevent any chance of bleeding. When in the course of time spurs get long and unsightly, a portion of them can be cut right back to within an inch of the main stem, and the adventitious buds there will break again and form fruit-bearing wood. By cutting back a certain number annually, they can thus be kept within bounds, or young rods can be brought away from the bottoms of the Vines, and the old ones cut out altogether.

TRAINING.—With regard to the extension system of training, by which a Vine is made to fill a whole house, there can be no objection to it, provided a border extending away from the front of the viney in proportion to the extension of the branches can be secured for that large range which an immense Vine, filling, it may be, one large house, requires for its roots. This condition secured, there can be no objection urged against what is called the extension system. Another matter to be taken into consideration is, that a Vine having its roots extending to an immense border area is less under control, especially for early forcing. All things considered, I prefer in a general way a compromise between the one-rod and the extension system; and think that a Vine limited to two main rods is, in by far the majority of cases, more under the control of the cultivator, and best adapted for early forcing.

For the supply of summer and autumn Grapes, there can be no objection to filling a house with a Vine or two, provided that a run of border congenial to them can conveniently be provided for such large Vines. In some localities where the viney is set down in a soil naturally congenial, there is little difficulty in this respect. But in the majority of cases the border has to be artificially prepared and limited; under such circumstances, it is better to restrict the Vines to two or three rods.—D. THOMSON (in *The Gardener*).

JASMINE FRUITING.

ADMIRAL SIR FREDERICK GREY, Lynwood, Sunningdale, Staines, informs us that the Jasmine plants trained on the walls of his house have this year borne fruit, and as this appears to occur but rarely, he should be glad to know if plants have seeded in other places.

The aspect of the house is S.S.E. Four plants have fruit on them, one to the E.N.E., one to the S.S.E., and two on the wall facing the W.S.W. This wall is sheltered by a con-

servatory from the north-west and north, and it is on it that the fruit is most plentiful, a great many sprays having from four to nine berries on them. They are about the size of a pea, of a shining green colour, beautifully clear and transparent. They are now beginning to turn to a dark olive, and probably will turn darker as they ripen.

Sir F. Grey has not found anyone who has before seen the fruit, and if desired would forward a spray with the berries on it. He is told that London mentions that a plant at Bayswater seeded in 1836.

ROSES ON THE BRIAR STOCK.

IN common with other enthusiastic Rose-growers I greedily devour every scrap of news which appears from time to time in "our Journal" relative to our favourite flower.

I was glad to see a letter from Mr. Dodds, of Kelso, upon the method he adopts with the Briar, as I firmly believe he has hit upon the right one, and one not generally known, or at least adopted by Rose-growers, so far as I know. I have never known it adopted in this country, although I have made frequent inquiries both from amateurs and nurserymen, and almost considered it to be a method confined to myself. I can speak with a degree of confidence in the matter, for I have treated my Briars in the way Mr. Dodds describes for the past seven or eight years, although I never heard of its being practised till it occurred to me to try it, and I now work all my Roses on the Briar in this way, fully believing it to supersede all other stocks for the Rose. I may say I have fully tested all other stocks and plans, but give a decided preference to the Briar.

When I first commenced to grow Roses in my own small way I knew little about them, but being passionately fond of them I experimented in every conceivable manner, and by buying, begging, and exchanging I have now a fair stock of as healthy vigorous standards as one would see at any place. The great secret in having good vigorous heads, is to have plenty of roots; this is the reason growers naturally go to Roses on the Manetti or on their own roots; it is not, I believe, any intrinsic superiority in the latter two. But give me a nice clean Briar with plenty of fine fibrous roots, and I will show you as much vigour and health, and far larger and better-developed flowers, than can be produced on any other stock.

The method I have adopted for some years is this (and I would like our enthusiastic friend Mr. Cumm to give me his opinion, and if he has not tried it to begin at once):—In September and October I go through the fields, and select my Briars—good, long, straight, stout shoots of this year's growth, taking care that they are well ripened, and I either pull them off the parent stock, as you would do a slip, or cut them with some sharp instrument. The hard ring of wood at the bottom of the slip, where it is attached to the stem, must be preserved intact, for if this be torn or detached from the wood it will not take root. Cut them all of an equal length, whatever height you want your standard. I make them all about 2 feet, as I like a short standard. Have your ground deeply dug, and plant them in rows 1 foot apart and 6 inches deep. I then put down a stout stake at each end of the row, and tie two ropes to one stake, and twist these ropes in and out round every stock, and make it firm to the other stake; this keeps them firm in the ground, and from being bent with the wind or other causes. These will throw out side shoots next spring, and be ready for budding on in July or August. I generally transplant them once before finally removing them to permanent beds, so as to get plenty of roots. Thus, instead of having big, thick, ugly roots with a few sickly fibres, as is the case where Briars are dug up by the roots in the first instance, you have a nice straight stem, with a bunch of beautiful, fine, fibrous roots, which will throw plenty of vigour into the heads. I should say that I find in selecting Briars, those having red bark and plenty of prickles are more vigorous than the pale yellow, and I prefer those of medium thickness, about as thick as the index finger.—JOHN TURTLE, *Peacefield, Portadown.*

STORING FILBERTS, WALNUTS, &c.

It is sometimes difficult to get good wine, if even a high price be paid, and the accompaniment of good-flavoured Nuts is equally a matter of uncertainty. I have therefore sent you a sample of Cob Nuts which were gathered dry last October, spread-out in the sun for a few hours with the husks on, and then packed in a box in layers with tolerably-rotted cocoa

refuse about as moist as ordinary potting soil; the whole well pressed down as packed, and kept in a cool wine cellar. I have followed this plan successfully for several years, and have found the flavour of the Nuts so preserved to be excellent. When they are required for use all that is necessary is to take out the quantity desired, and again press down closely the remainder. The Nuts when taken out should be slightly dried in the air, and the refuse will then shake out and leave the Nuts clean and equal to those fresh gathered. Walnuts should be husked and dried for a somewhat longer period in the sun before being packed. Nuts without the cocoa refuse, but otherwise similarly and concurrently treated as the sample sent you, are now all bad.

It is advisable not to have the refuse too moist, as on one occasion from this cause I found a perfect forest of miniature Filbert and Walnut trees in my cellar in the spring after the Nuts were stored, the whole having vegetated at the growing period. The method is cleanly, and the refuse does not impart an earthy taste, as in the case of Nuts kept in the ground.

—T. LAXTON, *Stamford.*

[The Nuts received from Mr. Laxton were as fresh as if they had been newly gathered. Speaking from the example before us we can strongly recommend the practice adopted by Mr. Laxton.—EDS.]

NOOKS OF SUSSEX.—No. 1.

NEVER will you receive a sentence written by me at Brighton or any other visitor-thronged town. If I hear that a friend is gone to a nook such as I like to nestle in, that nook is barred against me until he and his belongings have thence departed. When I escape for a change, it is for a change total—new faces, new scenes, new topics, and new commissariat. I would as soon remain in Tooley Street as be either in a section of London by the seaside, or in a lane walking with a London acquaintance talking of woollens, and dining upon an economical leg of mutton. Scenes and pastures new for me, and the more intensely contrasted with everyday life the more enjoyable. It is only in out-of-the-way nooks that total novelties are come at. I am in one such nook, and its nearest town—but a small one—maintains in life a weekly penny *Times*, and where but in that could be read such a sensational advertisement as in that now before me? The Public Health Commissioners should summon the nurseryman to aid them, for he announces as an undoubted fact that he is selling "THE DISEASE-DESTROYING TREE, so well known for preventing fevers and other diseases." That is his voucher to the Eucalyptus globulus. Again, where but in such nooks as I am straying in could he seen in every lane broods of jolly chickens a month old, and each from twelve to fourteen chicken strong? Do the management, the climate, and the breed combine to secure these best of early poultry for the London market? The breed is the Sussex, so commonly white, irregularly speckled with black, and all Dorking in structure except in not having five claws. There seems no coddling management, and the climate is not so mild as further westward, where chickenhood is much more precarious. Then who would have thought the soil of these nooks was favourable to these youngsters? Why, it is the clayiest of clay, even that known as "the London clay." The past superlatively dry summer did not injure the crops in and about these nooks. I have just trudged between Chichester and Bognor, and make no exception when I say that no finer crops of Turnips are to be found in England.

Bognor: Did any other reader of this Journal ever retire thither? Let no one be affrighted by the name. It has no more relationship to a bog than Hastings has to the Pea so called. *Bucgrenora* was its most ancient name, and its three mid-letters being omitted, the residue, *Bucnora*, was sloped towards its present further corruption; but it passed through an intermediate stage, for in 1327 a fair was established, and a chapel dedicated to St. Bartholemew at "Bogenore." If asked what was meant by the original name, I can only point out that *Buc* was the Beech, and *grenora* intimated vigour. Passing from its etymology, let me observe that it is an improving nook, and for improvement there was abundance of occasion. Its founder, Sir Richard Hotham, was a hatter, and I have come to the conclusion that his vast expenditure on the place originated the proverb, "As mad as a hatter." Wealth and knighthood made him ambitious to create a town that would immortalise his name. He found this nook, spent £160,000 on house-building, called the place "Hothampton," became involved in unsuccessful lawsuits, died broken in spirit, and

his property was sold by auction for £61,000; his residence, Chapel House, with thirty-nine acres realising only £3650. Hothamton was expunged, Bognor remains, and the only permanent record of its founder besides his epitaph in the gallery of South Birsted Church, is a halfpenny token he had struck, found sometimes in numismatic museums, bearing the legend—"Hotham, Hatter."

As Sir Richard was not only a Southwark tradesman but its representative in Parliament, and consequently in constant contact with London aldermen, he may have had his epicurean proclivities intensified, and consequently inclined to Bognor because circled by places so celebrated for dainties, that they were combined into this proverb:—"A Chichester lobster, a Selsea cockle, an Arundel mullet, a Pulborough cel, an Amberley trout, and a Bourn wheatear." To these might be added "Bognor prawns," for I hereby bear testimony to their excellence, and probably at no one place on the English coast are so many caught. In stormy weather when the boats cannot venture out hundreds of prawn-traps may be counted on the sea-wall.

The mentioning Arundel reminds me of the gardens noted during peripatations into the nooks within a semicircle of ten miles between that dukely town and the sea. The cottage gardens are well stocked, and the vegetables superior both in size and quality. The Broccolis are especially excellent. The Potatoes were nearly all stored long since, and the disease is not said to have appeared even slightly. The farmhouses are all large and substantial; the gardens of the olden fashion—large squares enclosed by substantial walls, many retaining the topiaried Yews and Box so generally admired when "William of Holland ruled the land." Many evidences exist of the real fondness for gardening that prevails—conservatories attached to the superior houses, greenhouses even to the minor dwellings; huge many-flowered masses of Pampas Grass in even small gardens, Geraniums bedded-out everywhere, especially in circular beds, having large bushes of Fuchsia coccinea in their centres. These last-named are uninjured in winter; and this reminds me that the climate is so mild that the Tamarisk continues to bloom in winter, and that masses of *Meibomia-nthemum eordifolium* now in flower on a south border near the sea, remain out and uninjured during that season. The very sign of a public-house bears evidence that a fondness for gardening prevails around. I have seen many hostelrys inviting by their sign, "The Shoulder of Mutton;" but nowhere, except at Yapton, in one of these Sussex nooks, did I ever see the sign of "The Shoulder of Mutton and Cucumbers."—G.

STRAWBERRY CULTURE.

I HERE the subject of Strawberry culture will not be allowed to drop yet, and that more of your correspondents will give us the benefit of their experience. I have some plants of the Early Prolific, and find them very early. I gathered a few Strawberries on the 2nd of June last, nearly a fortnight before Keens' Seedling, and the flavour was good. If the plants thrive well this Strawberry will be a valuable acquisition; but I have only had the plants one season, and I can never tell what a Strawberry will do until I have had it two or three years.

I find it impossible to secure a large crop of fruit the first season on our dry soil; the second is generally the best, but not always, and after that the plants live on as long as you like, but the crop is not so good after seven or eight years. Although plants seldom die in the ground, they sometimes wear out in another way after a certain time, seem to get tired of the soil, do not bear well even if you put out young runners, and it is necessary to procure a fresh stock from a distance. My object in Strawberry-growing is to secure a large crop for dessert, and I have found none to beat Trellope's Victoria, with Keens' Seedling to come in before it, and the Elton after it. I have several on trial—viz., President, Sir Joseph Paxton, La Constante, and Myatt's Prolific, and shall on another occasion be able to tell you what I think of them.—AMATEUR, Cirencester.

MAKE YOUR TREES BRANCH LOW.—Train your Pear trees for garden or field use that they will branch at a distance of 1 or 2 feet from the ground. The advantages are easily enumerated:—1, It is easy to trim. 2, It is easy to gather the fruit. 3, Falling fruit is little injured. 4, The branches being sturdy, will not be strained by overbearing or over-weight of fruit.

5, Soil will be kept shady and moist. 6, The trunk will be protected from the scorching sun. 7, The tree will grow more and more beautiful.—(*Horticulturist*.)

PORTRAITS OF PLANTS, FLOWERS, AND FRUITS.

INS TECTORUM. *Nat. ord.*, Iridaceæ. *Linn.*, Triandria Monogynia.—Native of Japan. Flowers purple, with darker stripes.—(*Bot. Mag.*, t. 6118.)

GOLPOPELLUM DALANUM. *Nat. ord.*, Orchidaceæ. *Linn.*, Gynandria Monogynia.—Native of Tenasserim. Flowers yellowish green, purple spotted.—(*Ibid.*, t. 6119.)

CINNAMOMUM CORTICISUM. *Nat. ord.*, Canellaceæ. *Linn.*, Dodecandria Monogynia.—Native of the West Indies. Flowers yellow, tipped with crimson. "A well-known West Indian tree, as the Mountain Cinnamon of Jamaica, or Canella bark of that island and St. Thomas, but not the true Brazilian plant of that name, which is its solitary congener, the *C. axillare* of Endlicher. These two very distinct trees were indeed long confounded together, and their bark is still imported under the same name of Canella, and employed largely as an aromatic stimulant to purgatives and tonics, being reputed to be well adapted for debilitated stomachs. The Caribs (ancient natives of the Antilles) and the negroes of the present day employ it as a condiment. As an aromatic, Pereira says that it ranks between cinnamon and cloves. Mr. Hanbury informs me that the bark was exported during the last century as 'Winter's bark,' and is still found in the market; as also that it is probably the 'Wild Cinnamon tree of Sloane, commonly but falsely called Cortex Winteranus,' though the tree that he figures 'Phil. Trans.' xvii., 465 (1693), is certainly *Canella alba*. It is a local plant growing in Jamaica only in mountain woods of the parishes of St. Thomas-in-the-Vale and St. John."—(*Ibid.*, t. 6120.)

DROSER A WHITTAKERI. *Nat. ord.*, Droseraceæ. *Linn.*, Pentandria Pentagynia.—Native of South Australia. Flowers white, but the leaves, green and brown, and haired, are the chief attraction. "This charming little plant was sent to the Royal Botanic Gardens of Edinburgh by Mr. W. A. Mitchell, formerly an *employé* in that establishment, where it was flowered by Mr. McNab in July last, and sent up to Kew for figuring, with a description by my friend Dr. Balfour, who observed that the sepals were reflexed, and the flowers an inch in diameter when well grown and expanded, a statement fully borne out by the dried specimens. The glandular hairs on the leaf are in all respects like those of *D. longifolia*, and act precisely in the same manner on being brought into contact with insects; the leaf itself, however, does not become concave, but retains the remarkable convexity of surface of each half."—(*Ibid.*, t. 6121.)

PENTSTEMON HUMILIS. *Nat. ord.*, Scrophulariaceæ. *Linn.*, Didynamia Angio-permia.—Native of the Rocky Mountains. Flowers dark blue. "It was one of the indefatigable Nuttall's discoveries in the Rocky Mountains, and it has since been gathered by the naturalists attached to various American and English Government exploring expeditions, amongst others by Dr. Lyall, of the Oregon Boundary Commission, who collected it at 7000 feet above the sea, between Fort Colville and the Rocky Mountains in 1867. The plant here represented was sent for figuring by Messrs. Backhouse, of York, who flowered it in June last."—(*Ibid.*, t. 6122.)

BRODIAEA VULBILIS. *Nat. ord.*, Liliaceæ. *Linn.*, Triandria Monogynia.—Native of California. Flowers pink. "It was discovered by Hartweg in the Sacramento Mountains, California, in 1846, and has since been found by various collectors in Sonora and other places. The scape sometimes attains 12 feet in length.

"The plant figured was raised and sent for figuring by Mr. Thompson, of Ipswich, in July of the present year."—(*Ibid.*, t. 6123.)

CLEMATIS, *Stella* and *Fair Rosamond*.—"They were both awarded first-class certificates by the Royal Horticultural Society in 1873, and certainly both well deserved that mark of distinction. They belong, as already mentioned, to the pæneus section, distinguished by its spring-flowering habit and its ternate foliage, and they both have flowers which are very perceptibly fragrant. *Stella* is an eight-sepaled variety, the sepals elliptic oblong and stalkless, so that they form a full solid-looking flower close up to the richly-coloured stamens. The colour is a deep bluish mauve, with a conspicuous bar of reddish plum colour down the centre of each sepal; the filaments are white, and the anthers of a chocolate purple, forming a conspicuous central tuft. *Fair Rosamond* has also eight-

sepaled flowers of the same form and imbricating character as those of *Stella*, but they are of a bluish white colour, and have a more or less distinct wine-red bar extending from the base of the sepals nearly to the apex, but becoming paler upwards; the beauty of this variety is much enhanced by the tuft of deep-coloured stamens which occupies the centre, and which have the filaments purplish red, white at the very base only, the anthers being of a darker purple. The scent in a warm close atmosphere is intermediate between that of *Primroses* and *Violets*, and is almost equal to that of the latter flower. Some idea of its free-blooming character may be formed from the fact that a plant grown over a balloon-shaped trellis 2 feet high, and 1 foot 3 inches through, bore at one time sixty-five of its fine showy blossoms. There can be no doubt that we have here two of the very best of the early-flowering sorts."—(*Florist and Pomologist*, 3 s., vii., 169.)

CYCLAMENS, Royal Purple, Rose Queen, and White Perfection.—“These three of the most advanced varieties are from the superb collection of Henry Little, Esq., of Twickenham. Mr. Little has made a speciality of the *Cyclamen*, and cultivates it in very large numbers, and in a style which, we believe, has always ensured him the first prize wherever he has entered into competition. From early autumn, through the winter, and well on into spring, the earlier months of the year being the height of the blooming season, Mr. Little's *Cyclamen* houses are brilliant with flowers, and possibly there is no other subject which would yield so abundant and so choice a return for the very moderate amount of cultural attention required.”—(*Ibid.*, 181.)

LILIUM AVENACEUM or LILIUM MACULATUM.—“This remarkable distinct Lily was shown at a recent meeting of the Royal Horticultural Society, by G. F. Wilson, Esq., of Weybridge. The plant was about 2 feet high, with distinct whorls of lanceolate leaves an inch wide on the lower part of the stem, near the top of which the leaves became alternate, a rather loose corymbose umbel of five to six flowers crowning the whole. The flowers are very distinct in form, having scarcely any tube, so that the perianth segments spread out immediately above the base; they are elliptic-lanceolate, nearly $1\frac{1}{2}$ inch long, so that the blossoms are fully 3 inches across; and they are of a deep tawny orange colour, with a thickish cluster of black spots towards the base. The flowers are somewhat nodding, but the style makes an angle with the top of the ovary, so as to assume an upward direction. The ovary itself is very deeply six-winged. This Lily is perfectly hardy, being a native of Kamtschatka, Manchuria, the Kurile Islands, and Japan. It was exhibited in flower about the middle of June.”—(*Ibid.*, 193.)

CAMELLIA, Thomas Moore.—“Mr. Williams, of the Victoria Nurseries, Upper Holloway, holds the stock; the foliage is bold, and the flowers are large, regularly imbricated with thick, fleshy, evenly-edged petals, and of a rich deep showy crimson colour, the deepest of any variety in cultivation. These qualities are such as to place it in the front rank amongst modern varieties.”—(*Ibid.*, 205.)

VIOLAS.

I ENTIRELY agree with Mr. Wright as regards the merits and usefulness of *Violas* as garden plants, yet I regret to see one or two self varieties of special merit omitted in his enumeration; but probably they have not come under his notice, as they are new—viz., *Viola Admiration* and *Purple Prince*. I feel sure, as selfs, no variety can surpass them for beauty, profusion of bloom, and size of flowers, and this more especially applies to the first-named, as I think it well deserves to be placed at the head of a list. During my stay the past summer in Mr. Williams's nursery I had a good opportunity of observing them, and of all the *Violas* I ever saw none attracted my attention so much as they did.

Admiration well deserves the name it bears. I feel sure it is excellent for a ribbon border or mixture in beds. The flowers are light blue, of the largest size, and stand well above the foliage. *Purple Prince* is a fine variety as a bedder, flowers not quite so large as those of *Admiration*, but the plant is a free bloomer, the colour very attractive. Although the past summer was very dry and unfavourable to *Violas* retaining their beauty, these varieties stood it well, and had a magnificent appearance.—T. T., *Second Gardener, Barnet.*

LATE PEAS.—R. Hanbury, Esq., of The Poles, Ware, writes on the 9th inst. to say:—“I am now gathering Peas of excellent

flavour from *Little Gem*, which promises to continue some time longer.

EXTRACTS FROM THE REPORT ON THE BRISBANE BOTANIC GARDEN.

THE experimental department of the garden still continues to prove its utility in the introduction and distribution of plants yielding products of commercial value, or which would otherwise be desirable additions to our present limited list of agricultural and horticultural vegetation. Inquiry has been made for some of the medicinal herbs by invalids, and it is gratifying that we are able to supply the demand. The requests for the seeds of fibre-producing plants have been too numerous for me to comply with the whole of them. An indigenous species of *Musa*, or *Banana*, has been known to exist in the north, and I discovered two others whilst with the late expedition. I feel assured that these will produce a fibre at least equal to *Manilla* hemp, and probably superior, as the trees are of a more robust habit than *Musa textilis*.

The demand for *Sugar Cane* continues, and experiments appear to be made in its cultivation in several hitherto untried localities. I am in expectation of receiving from Java cuttings of a number of new varieties, some of which will probably be found suited to the climate and soil of Queensland.

I am still frequently asked for the seeds of dye-producing plants, especially of *Indigo*, for the planters upon the northern rivers. The growth and manufacture of *Indigo* will probably assume the proportions of a valuable and important interest in the tropical regions of the colony, whenever labour can be obtained at a sufficiently cheap rate.

The experimental Coffee plantation has thriven well this year, and its appearance has caused a demand from northern visitors for plants and seeds. Amongst other calls for distribution the principal have been for *Malberry*, *Olive*, *Tea*, *Palm oil*, *Lavender*, *Senna*, *Turkey Rhubarb*, *Cocoa*, *Clove*, *Cinnamon*, *Nutmegs*, *Vanilla*, *Ginger*, *Walnut*, *Hickory Nut*, *Breadfruit*, *Jack*, *Alligator Pear*, *Chinese Date Plum*, *Mangosteen*, *Mango*, *Durian* plants, *American Vine* cuttings, &c.

On account of the dryness of the season at the time of flowering, some of the fruit-bearing trees did not yield as well as in former years—such as the *China Date Plum*, the *Alligator Pear*, the *Custard Apple*, the *Cherimoyer*, &c. On the other hand, the dry weather at the same period was favourable to the *Mango* tree, which produced a more than an average crop. The fructification of the latter is impeded, and that of the first-named fruit tree promoted, by a moderate amount of moisture.

Living plants and seeds have been issued during the year to 513 individuals and establishments, as follows:—61,000 *Sugar Cane* cuttings, 7000 *Coffee* plants, 2300 *Tea* plants, 3000 *Ginger* roots, 300 papers of *Tobacco* seed, 20 lbs. of *Indigo* seed, 50 lbs. of *South Sea Island Cotton* seed, 20 lbs. of *New Orleans Cotton* seed, 10 lbs. of *San Hemp* seed, 10 lbs. of *Jute* seed, 300 *Mango* plants, 358 *Jack* plants, 200 *Chinese Date Plum*, besides 500 packets of seeds, and 11,000 of other useful and ornamental plants. A great demand is springing up for genuine seeds of Australian timber trees from Northern India, California, as well as the Atlantic States, Southern Europe, and other countries. The requisitions made have been complied with as far as possible. I have also supplied a large quantity of roots of *Buffalo Grass* (*Stenotaphrum complanatum*) for binding railway embankments, a purpose for which it is eminently well adapted.

The following list includes the principal plants which have flowered or borne fruit during the past year:—*Cocos flexuosa*, Mart., nine years old; *Enterpe oleracea*, Mart., ten years old; *Oreodoxa regia*, eighteen years old; *Areca horrida*, Rox.; *Macadamia ternifolia*, five years old; *Nephelium lappaceum*, L.; *Artabotrys odoratissima*, R. B.; *Araucaria excelsa*, R. B., fifteen years old, &c.

I would beg to call attention to the expediency of setting apart four hundred acres upon both the Johnstone and the Daintree rivers, these districts offering better advantages, as regards aspect and soil, than the reserve at Cardwell possesses for the cultivation of the *Clove* (*Caryophyllus aromaticus*), the *Nutmeg* (*Myristica mosehata*), the *Vanilla* (*Vanilla aromatica*), the *Cocoa* (*Theobroma Cacao*), the *Coca* (*Erythroxylon Coca*), the *Mangosteen* (*Garcinia Mangostana*), the *Durian* (*Durio zibethinus*), the *Breadfruit* (*Artocarpus incisa*), &c., which require some more degrees of heat and moisture to bring them to perfection than can be had at Cardwell. In fact, with the

vast variety of climate and soil of Queensland, it must of necessity be the case that each locality has a distinct description of vegetation most suited to it.

The reserve proclaimed at Toowoomba, on the Darling Downs, has long been needed for the successful cultivation of plants requiring a much cooler region than the neighborhood of Brisbane. The elevation and aspect are well adapted for the Grape Vine, the Peach, the Apricot, the Nectarine, the Plum, the Cherry, the Apple, the Pear, the Walnut, the Hickory Nut, the Spanish Chestnut, the Hazel Nut, the Jerusalem Filbert, the Fig, the Strawberry, the Hop, and the Orange, not to speak of the various useful and ornamental trees and shrubs that adorn the parks of the old country, such as the Oak, the Horse Chestnut, the Alder, the Birch, the Hornbeam, the Beech, the Guelder Rose, &c. There might be also added many of the trees of North America, such as the glorious Magnolias, and others.

CULTURE OF PEAS.

THE varieties of Peas are legion, and I think it is useless to have sixty or seventy sorts offered by seed-men, when three or four are quite enough for any gardener to grow to keep up a supply from June till October. During the twenty years I was gardener at Gosford I only grew two or three sorts, and used to have Peas some seasons up to the 10th of November. I grow Peas now to send to Edinburgh market; and some years I grew two acres, but not above three-quarters of an acre this season. The sort I grew for early work this year was Kentish Invicta, which I find better than Sangster's No. 1. I am told Multum-in-Parvo is the best early Pea, but I do not know it.

The Pea I have grown for a late crop for twenty-five years is Lynn's Black-eyed Marrow, the only Pea I know with a black eye, and I have seen no Pea to surpass it. It grows 4 feet high, is a branching sort, is not apt to mildew, bears profusely, and is sweet, and the pods fill well, though not so large as Veitch's Perfection; but with me it bears far better, and will retain its flavour till nearly ripe. If the soil is suitable for Peas it may be planted 4 to 6 inches between each pea; if sown thickly they are sure to rot, or will not bear well. I introduced this Pea to Scotland thirty-two years ago from Hackney. I got a quart of it sent by the mail coach, and when I saw it in a bearing state I kept all for seed, and have grown it ever since. I think Little Gem (Macleay's) a very useful sort. I sowed about 1000 square yards of it on the 15th of July, 20 inches between the rows, and now (October 13th), I could pull a quantity fit for table, and it is blooming in great style. I enclose a pod of it. It requires no stakes; and as a rule I do not believe in staking Peas. I sowed Lynn's Pea this year on 7th May, and on the 3rd of this month I pulled twenty pecks on one day.

From my own experience I would say to those who want a supply of Peas from June till October, if they sow the best early Pea known, and at the same time Maclean's Advancer and Lynn's, and then go on with the latter till the end of April, they will not regret it. I have tried Carter's G. F. Wilson beside Lynn's; but I prefer the latter, and I like to stick to an old friend till he deceives me.—JOHN ADDISON, Ormiston, Tranent, N.B.

FLOWERS FOR OUR BORDERS.—No. 42.

FORSYTHIA VIRIDISSIMA.—DEEP GREEN FORSYTHIA.

Among the numerous valuable plants discovered by Mr. Fortune on his first visit to China, and subsequently introduced to this country, two are remarkable for the profusion of their large yellow flowers, produced, in the case of one, in the very heart of winter, and in that of the other in early spring. We allude to *Jasminum nudiflorum* and *Forsythia viridissima*. It is doubtless some drawback on the merits of these fine shrubs, that in both the blossoms appear before the leaves; but winter flowers are so acceptable, even when, as in these instances, unaccompanied by their usual leafy attendants, that this circumstance has not prevented them from attaining a considerable place in the estimation of the public. Both are highly ornamental objects for a wall when this can be spared, for although the shrubs themselves are quite hardy, the flowers of the *Forsythia* sometimes suffer from severe frost when grown as a bush or standard, as in the case of many winter-flowering plants; and the shoots of the *Jasmine* are of such tenuity, that some support is rendered necessary by this circumstance alone.

Forsythia viridissima is a free-growing shrub, reaching ulti-

mately the height of 8 feet, or even more, with somewhat angular branches, which when mature are of a dark brown tint. The leaves are opposite, generally lance-shaped, acute, and toothed at the margin from the middle upwards, but entire near the base; they are, when full grown, of a clear deep green colour, to which circumstance the specific name alludes. In the axils of each leaf a small bud is formed, which, as the autumn advances, becomes gradually more conspicuous, until, when the leaves have fallen, these buds assume so prominent an aspect as to form a marked feature in its winter physiognomy. They remain dormant until March, when they gradually unfold themselves and disclose a profusion of large bright yellow blossoms, emitting a delicate balsamic odour, in which respect they have an advantage over those of the *Jasminum nudiflorum*, which are scentless. The flowers are produced sometimes in pairs, but often singly, on short footstalks so slender that the blossoms are generally drooping; they are, as already intimated, of considerable size, somewhat campanulate in form, with a short tube plaited within, and a limb cleft into four spreading obtuse segments. The stamens are two in number, with filaments so short that they are quite concealed in the tube.



Fig. 100.—*Forsythia viridissima*.

The *Forsythia* is easily cultivated, and as easily increased, the most ready mode of propagating it being by layers; but cuttings of the ripened wood about a foot or more long, taken off in autumn and planted in sandy loam, will root freely.

A soil of this character is also best suited for established plants; in rich moist earth it produces long-jointed shoots, and continues its growth later in autumn than is compatible with the due maturation of the wood. A situation against a wall is to be preferred for it, because in this position the shoots will be subjected to a greater amount of heat, which will materially assist the ripening process. It cannot be too often repeated that in this consists the whole art and mystery of acclimatizing the plants of warmer regions than our own, though in this instance we have to deal with a plant from a district where the winters are certainly much more severe than in any part of Great Britain. The summers are, however, of an equally extreme character, and the shrubs and other plants of the north of China are therefore well prepared by the roasting they undergo to endure the subsequent reduction of temperature. As a further illustration of this principle, we may remark that in the neighbourhood of New York, where, as our readers know, the winters are of a rigorous nature, the *Forsythia* flowers freely as a bush or standard, and this is to be

attributed solely to the elimination of all watery juices by the warmth of an American summer.

This mention of standards reminds us that the Forsythia grown in this form has, when in flower, an extremely interesting effect, especially if planted amidst shrubs of an evergreen character. When grown as a bush, an exposed situation should be avoided; a warm corner, or a south exposition, sheltered by tall evergreens, will protect the flowers from the cutting March winds, and preserve them in beauty for a longer period.

The Forsythia blooms whilst comparatively small. It was introduced, as we have already stated, from China in 1815 by Mr. Fortune, who discovered it in company with the beautiful *Weigela rosea* in the garden of a mandarin near Tinghae, and subsequently growing wild in the province of Chekiang.

One other species is in cultivation, *F. suspensa*, from Japan, but is less frequently met with in gardens than the foregoing, though of earlier introduction. It was on this species that the genus was first founded, in honour of William Forsyth, a horticulturist of some note, formerly gardener at Kensington Palace.—(*W. Thompson's English Flower Garden, Revised by the Author.*)

THE LABOUR OF FRUIT CULTURE.

SPEAKING of planting fruit, the remark is often made that "it is no use to set out trees; they do no good any more in these parts;" and yet it is beyond dispute that there is no country on the face of the globe that in this respect can beat this one. The fact is, we have been spoiled by the very abundance of our riches. Time once was when all one had to do was to stick in a tree and leave the rest to nature. Immense crops resulted from this simple plan without any effort on the part of the fruit-grower. Nowhere else could this be done. By the sweat of one's brow is he to labour, not only for his daily bread, but for his fruit also. No one could expect this Eden-like dispensation to last. Bags and blight are sure to find out the fruit trees, and one has to battle with them in order to succeed in America as well as elsewhere.

It is very remarkable that those in daily communication with the soil, as fruit-growers and gardeners, should expect fruit trees to grow without some care. Look at the labour required to grow the commonest farm crops. Besides the horse labour, and the wear and tear of machinery, and the cost of manure, one has to walk some eighteen miles after the plough in order to get an acre of wheat-land ready for sowing; and yet with all this hard work and heavy expense, the profit is often not more than 10 dols. an acre. It is so of all farm and garden crops. Everyone knows that the labour is enormous—hoeing, digging, working away for ever.

Fruit culture, to be successful, requires some expense and some labour; but it requires not nearly as much labour as many other kinds of things do; and in proportion to the labour, the profits are generally greater.

It is one of the lessons our folks have to learn, that the day when Nature took care of our fruits for us, and gave us full crops without trouble or care, is gone by. Fruit-growing takes its stand now with all other things. It will yield good returns with ordinary care. He who does not yet know this, and calculates to do as his fathers did, had better leave fruit trees alone.—T. MEEHAN (in *Forney's Weekly Press*).

NEW BOOK.

Notice sur quelques Espèces et Variétés de Lis, &c. Par J. II. KRELAGE.

THE beautiful and varied tribe of Lily has of late come so much into favour, that any work on the subject must have an interest to many horticulturists. The little brochure named above can hardly be designated as a work, but is simply an example of the extreme care with which many of the foreign nurserymen enter into their cultures, a care which is emulated by many in our own country.

Messrs. Krelage & Son of Haarlem are well known for the extent of their bulb cultures; and the little book, of which this is the first part, is intended to give a detailed scientific and popular account of the many varieties of Lilies cultivated by them. It contains a well-drawn and coloured plate of *Lilium Wittei* and several characteristic woodcuts, and is mainly occupied with descriptions of *Lilium Thunbergianum* and its varieties, *Lilium Humboldtii*, *Lilium tigrinum*, and *Lilium Wittei*. With regard to this latter, it seems very doubtful

whether it is not a white form of *auratum*, somewhat more prized but not really more different than many of the varieties one sees in very large collections of imported bulbs. Indeed the whole question of some of these Japan Lilies is involved in doubt, some believing that *auratum* itself is but a variety, while *Krameri* bears sufficient analogy to it to make it doubtful as to its being really a distinct species.

Lilium Wittei, we learn, was flowered first in the gardens of M. Van Leuwen at Rotterdam in 1867; it was offered to an English house afterwards, by whom, I daresay, it was believed to be only an *auratum*, and ultimately bought by Messrs. Krelage, who say it is so scarce that it will be some time before it can be offered for sale. It is not, however, because the "Grapes are sour" that I venture to question if people will care very much for that.

An interesting and chatty chapter on *L. Thunbergianum* flore-pleno occupies the first place. We are given curious heraldic and poetic notes on the tribe, while a very exhaustive botanic treatise exhibits much care and research. In it we are told that Parry sings of it—

"The Lily, more noble and more brilliant still,
Its form majestic to heaven uprears,
King of the gardens, this favourite of Flora
Charms us at once by its perfume and beauty."

While De Boisjolin says—

"Noble child of the sun, thou Lily majestic!
Towards thy parent orb, which dazzles thee not,
Lift with true pride thy sovereign form:
Thou king of the flowers, the Rose is thy queen!"

But we are not only treated to poetry, but given good, sound, solid, practical teaching, and the whole brochure may be regarded as a fitting adjunct to the carefully prepared little treatise of Messrs. Teutschel & Co., of Colchester. To one who, like myself, has been long an admirer of these lovely tribes—who can look on the time when I first bloomed the lancifolium section, when the price was two guineas a bulb—who was a witness of the sensation occasioned by the appearance of *Lilium auratum*—it is a matter of hearty congratulation to see it coming once more to the front, and to admire the beautiful additions being so constantly made to our gardens and the increase to our stores of information.—D., *Deal*.

NOTES AND GLEANINGS.

MESSRS. VEITCH & SONS have issued a coloured plate representing their new Tea Rose DUCHESS OF EDINBURGH, which is an excellent representation of the original, and conveys a good idea of what that charming Rose is like.

— In some portions of the country RUST ON BLACKBERRIES is becoming quite common. It arises, perhaps, from want of a full supply of food in connection with the hygrometric condition of the atmosphere, and the only remedy that suggests itself is good culture, thinning-out the plants, and mulching well with leaf mould and manure, or muck and manure, or manure alone. A sure remedy is the removal and burning of the diseased bushes.—(*Canada Farmer*.)

— THERE is a Currant bush at Rochester, New Hampshire, which, though growing among the branches of an Elm 20 feet from the ground, has borne well for more than a dozen years.

— JAMES DOUGALL, of Amherstburgh, sent specimens of a NEW SEEDLING CHERRY to the meeting of the State Pomological Society at Adrian, Michigan, which will be likely to prove valuable if its good qualities are maintained in other localities. The fruit is black, and the specimens averaged by measurement three-fourths of an inch in diameter, and were of good quality. The best ones had been previously picked, and those sent were hardly full-sized. Mr. Dougall stated that this new sort ripened uniformly a week earlier than Early Purple Gean on trees standing side by side.—(*Canada Farmer*.)

— THERE were 20,500 packages of fruit shipped from Benton Harbour, Michigan, on September 2nd.

FLAVOUR OF CALIFORNIAN APPLES.—The *Pacific Rural Press*, in a recent article, says:—But with regard to Californian Apples there can, we think, be but one opinion—namely, that they are, in a remarkable degree, lacking in strength and variety of flavour. Apple consumers here universally acknowledge it, and so little is expected from Californian Apples in this respect that the growers give little consideration to the question of flavour;

and as a consequence of this indifference, in regard to all fruit qualities excepting size and beauty, varieties have become so confused that dealers, and even producers, scarcely know what they are selling, further than that they are Apples.

THE INDIAN FIG.

THIS, the Cactus *Opuntia* of botanists, is one of the cosmopolitan plants, for we have seen it growing in the open air of Europe, Africa, and Asia, and know those who have seen it similarly thriving both in South and North America.

Our earliest writer on plants, Lyte, knew little about it, for although in 1578 he published a tolerable woodcut of it, he had no more to say relatively than that it is "a strange kind of plants which cometh fourth of one leaf set in the ground, and sometimes it groweth high, and is named of Plinio, *Opuntia*, now in these dayes *Ficus indica*"—that is, the Indian Fig, a popular name it still retains.

Gerarde tried in 1583 to induce it to bear fruit, but, he adds, "never as yet, although I have bestowed great pains and cost in keeping it from the injury of our cold climatic."

We now know that on this plant the Cochineal insect is reared, but Johnson who edited a later edition of Gerarde's 'Herbal,' thought that these insects were transformations of the plant's substance. He says, "Upon this plant in some parts of the West Indies grow certain excrecences which, in continuance of time, turn into insects, and these outgrowings are that high-prized Cochenell wherewith they dye colours in graine." This error was soon dispelled, and the true history of the Cochineal insect and its cultivation were made known.

We have seen at the Cape of Good Hope hedges entirely formed of this plant, and most formidable opponents they were to anyone attempting to pass through them.

In the "Botanical Magazine," t. 2393, there is a coloured portrait of this Cactus and its yellow flower, with this notice appended:—"Cactus *Opuntia* is a native of America, and although now indigenous in many parts of the south of Europe, and in Barbary, was probably originally brought from thence.

"This species is sufficiently hardy to bear our winters without protection, provided it is planted in a dry soil. It is well suited to ornament rockwork, in which situation, in the Chelsea gardens, the plant from which our drawing was taken has stood several years."

"Flowers in June and July. Propagated by the articulations."

HEATING BY GAS.

As a partner in an old-established house which has from time to time supplied hundreds, and I may say thousands, of gas boilers for heating apparatus, will you allow me to ask your correspondent (see page 322) where

"the *couleur-de-rose* advertisements and flattering reports" that he refers to appear? I am afraid his failure arises more from the insufficiency of heating surface exposed in the house by using 1-inch pipes than the gas apparatus itself. He does not say the height of the house 8 feet 4 inches by 7 feet wide. If we suppose it is an average of 8 feet 6 inches high, I would advise his using at least 60 feet of 2-inch pipe if to be heated by an improved form of gas boiler with atmospheric burner. Your correspondent and readers generally must not forget, as a set-off against cost of gas, the little or no trouble necessary in attending to a gas stove for small houses compared with cleaning, lighting, and night stoking of a boiler for coal or coke. I do not advocate a gas stove where there is convenience for stokehole and flue for a boiler for coke; but as there are hundreds of small conservatories where no other than a gas stove or boiler can be used, I do not see that the cost of gas should be made such a "scare-crow" as

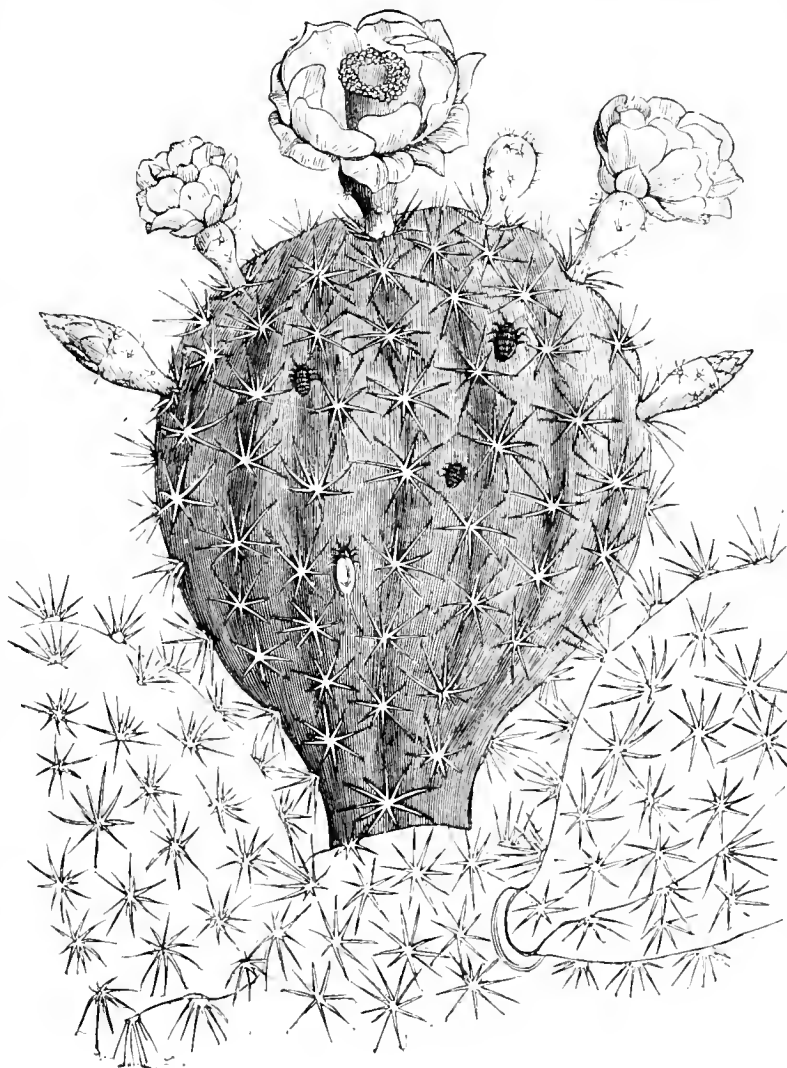


FIG. 101.—THE INDIAN FIG.

your correspondent thinks it is.—R. S. D.

THE BEDDING IN THE ROYAL HORTICULTURAL SOCIETY'S GARDEN, SOUTH KENSINGTON.

GOOD as the bedding display has been in former years, it has this season been equal to that of any previous season, and better in regard to beauty and variety. With a proper play of colour, variety of form, and an harmonious relation throughout, the effect is rich and pleasing. Neutral colours have been largely used and properly arranged; and to maintain the popularity of bedding a change was needed, for people had become tired of for ever seeing beds of scarlet and yellow wherever they went; the public taste has considerably improved, and people now appreciate soft colours in flowers and foliage judiciously combined, and even foliage plants alone for bedding are becoming the first fashion. It is no wonder; for when they are nicely arranged, and contrasted with care

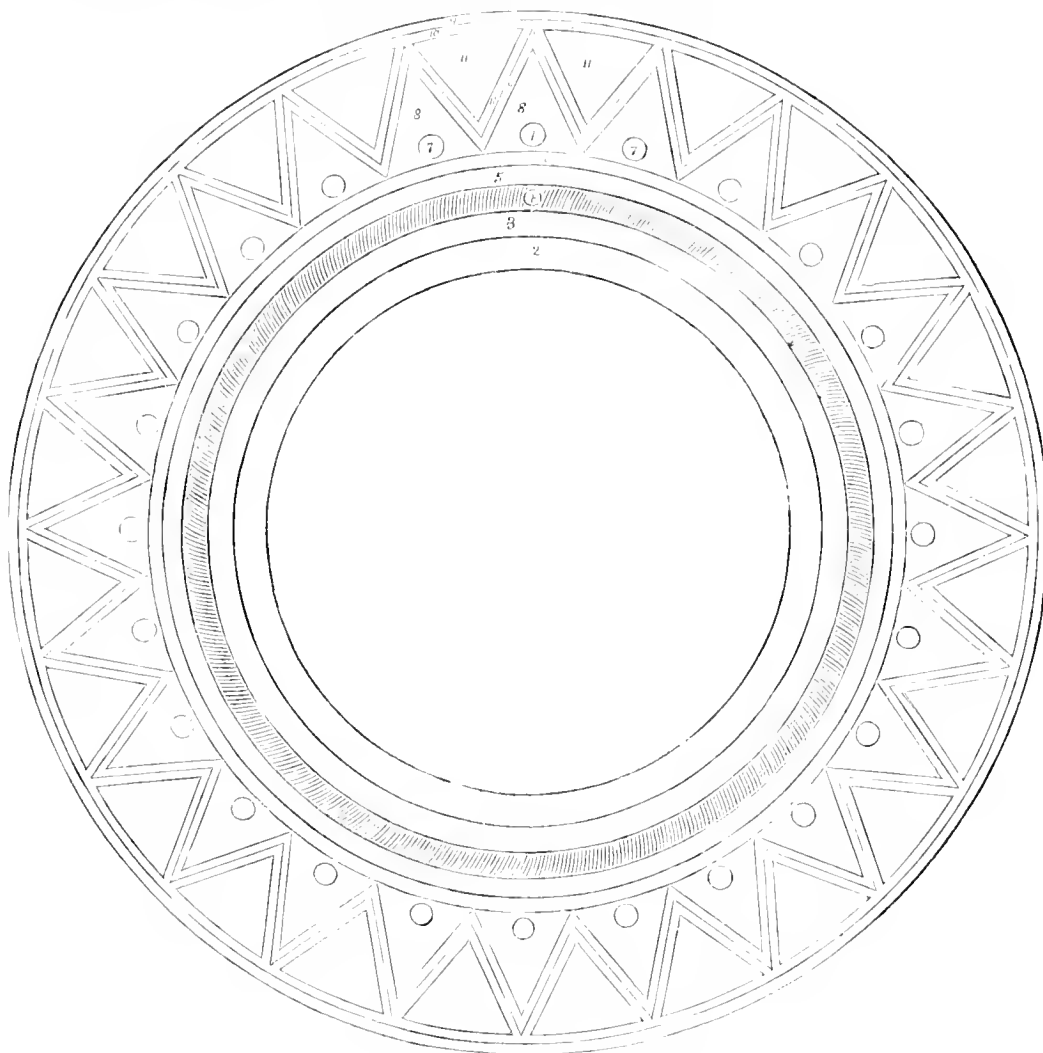
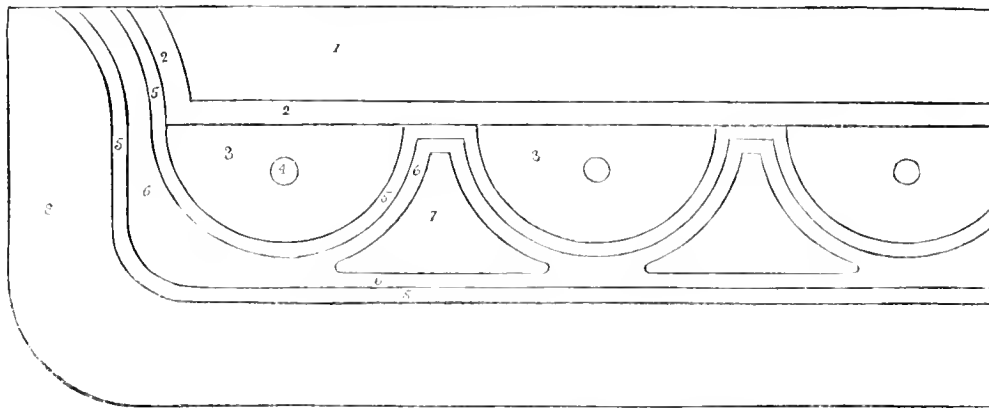


Fig. 102.—THE CIRCULAR BED.

- 1, *Canna Annei*.
 2, *Canna discolor*.
 3, *Coleus Verschaffelti*.
 4, A stone frame, rising 2½ feet.

- 5, Bright scarlet *Pelargonium Vesuvius*.
 6, Silver-edged *Pelargonium Princess Alexandra*.
 7, Single plants of *Cineraria maritima compacta*.
 8, *Alternanthera magnifica*.

- 9, *Echeveria secunda glauca*.
 10, *Pyrethrum parthenifolium* Golden Feather.
 11, *Lobelia pumila grandiflora*.



Scale Feet.

Fig. 103.—THE BORDER.

- 1, Pink *Pelargonium Christine*.
 2, Silver-edged *Pelargonium Flower of Spring*.

- 3, *Alternanthera amana*.
 4, *Echeveria metallica*.
 5, *Echeveria secunda glauca*.

- 6, *Pyrethrum parthenifolium* Golden Feather.
 7, *Lobelia Erinus speciosa*.
 8, Grass.

and good taste, they are very effective, and may successfully assert the first position in the parterre.

The design at the top of the large central walk in the Royal Horticultural Society's Garden at South Kensington consists of a series of beds round a large circular one (fig. 102), with a jardineite in the centre of it. This is a very pretty piece of colouring, and a happy combination of foliage and flowers, which the design and the description of the plants used will show. In another part of the garden there is a long border at the foot of a wall (fig. 103), and it looks like a waving ribbon. It is richly ornamented with choice plants arranged in an artistic and elegant manner, as the design will explain.—N. COLE, *Kensington Gardens*.

THE NARCISSUS AS A BORDER FLOWER.

ONE of your correspondents recently alluded to *Narcissus poeticus*, the common Pheasant's Eye Daffodil of gardens, as being well worth general culture, an opinion which I can readily endorse. It is one of the most beautiful and fragrant of all hardy flowers, and poets and painters alike have done it honour for ages past. It should find a place in every shrubby border; or grown in masses, it forms a beautiful object on the lawn, or such portions of it as are not mown until the autumn. It does not, however, appear to be generally known that bulbs of this species force well if they are taken up late in the year, and potted in any light rich soil. Another remarkable fact is, that these bulbs flower better the second year they are forced than the first, so that they should not be thrown away after the first year's crop of flowers is obtained, as is generally the case with bulbs that are forced. Early flowers thus obtained are valuable, as in beauty and fragrance they hold their own with the choicest of all cut flowers. The sort generally used for forcing is *N. Tazetta*, a very variable plant, native of the south of Europe, some of the most beautiful and distinct varieties being found on the borders of the Mediterranean. This is the plant so largely imported and sold by our nurserymen about this season of the year under such names as *Staten General*, *Grand Primo*, *Soleil d'Or*, and *Paper White*. The colour of the flowers varies from pure translucent white to rich golden yellow, while the corona or cup of some forms is of a rich orange tint, bordering on vermilion. This plant, although generally forced in pots, flowers well in glasses of water, like the *Hyacinth*, while it does well planted out on a warm, moist, sheltered border, and so treated flowers later than the forced plants, so that a succession of flowers may by this latter plan be obtained. A striking peculiarity of this and all the other species of *Narcissus* is, that their flowers last fresh a long time in water. I have had cut spikes in a vase of water for a fortnight, or even longer, and the latest flowers were then quite fresh. It was formerly the custom of some of the florists near London to grow beds of this plant (*N. Tazetta*) out of doors for the sake of their flowers in spring, and the flower-spikes were cut from the plants as soon as the first buds had attained their full size. When so gathered, they bear packing better than when the flowers are fully open, and the blooms never fail to open out in succession when placed in water, and flower as well as if left on the plants, or even better, as the flowers suffer from the winds and rains of the spring months. Those who force these beautiful plants should retain the bulbs, and plant them out in a warm border after flowering, as, when so treated, they will in most cases flower well in after years.

N. Pseudo-Narcissus, the common yellow Daffodil, is supposed to be a native of this country, and with its many varieties (both double and single), is well worth border cultivation. It is capable of producing fine effects when planted in masses, a fact noted by several of our poets from Herrick to Wordsworth, and all lovers of hardy flowers should not fail to read the celebrated ode to Daffodils of the last-named author, which is one of the most interesting and suggestive rural poems in the English language. *N. biflorus* is another reputed native, generally bearing two white flowers on a scape among its wax-like glaucous foliage. It is nearly related to *N. poeticus*, but is readily distinguished by the absence of the purple or crimson ring round the margin of the cup. *N. gracilis*, and its beautiful variety, *N. gracilis tenuior*, also resemble the last in the shape of the flower, and in having a saucer-shaped cup; but the colour is a clear yellow, and the leaves, instead of being glaucous and flat, are semi-cylindrical, and of a vivid shining green colour, nearly like those of the *Jonquil* section. *N. incomparabilis* is a stately species, well worth a place, its

flowers varying from deep yellow with an orange-margined cup, to pure white with a lemon cup. The flowers are solitary, on stout scapes, 16 to 18 inches high—the flowers being about 3 inches in diameter. There are two or three very distinct and beautiful double-flowered varieties of this plant, the flowers of which are very showy, and these should find a place in every herbaceous border. One of these has white segments, partly encompassed in a glowing orange nectary or cup, and is the Double Orange Phoenix of old florists and gardeners. A yellow form with a deep orange cup is the Sulphur Phoenix, and there is another still paler form than either, very beautiful, although now seldom seen in cultivation. The flowers of these are nearly as double as a Rose, and so heavy that they require some support to prevent them bending to the earth. A white-flowered kind, somewhat similar to the last, has nodding white flowers, with a cylindrical cup; this is *N. poeciliformis* or *N. montanus* of gardens, and is interesting to botanists and amateurs on account of its flowers being rarely perfect, having often only three or four segments instead of six; and the drooping character of the flower is very distinct from any other species, and serves to distinguish it from the last-named plant.

The gem of the whole genus is *N. triandrus*, a pale sulphur-yellow-flowered plant with from two to five flowers on a scape, and deep green rush-like leaves. This has recently been reintroduced to cultivation, and is one of the prettiest in the whole group. The segments of the perianth are reflexed so as to give the flower the appearance of a yellow Cyclamen or Dodecatheon rather than a Daffodil. The flowers of this species are very delicate in structure, yet it has proved to be one of the hardiest, and withstands sun and rain better than most of the others. *N. Jonquilla*, the common Jonquil, is well known as a border plant, its bright yellow flowers being borne in clusters on slender scapes among a tuft of deep, glossy green, rush-like leaves. It forces well, and its fragrant flowers are always welcome for the flower vase in early spring. Nearly related to this plant, but with larger flowers, is *N. odoratus*, or *Campanelle*, a showy plant largely grown in some old market gardens for the sake of its deep golden sweet-scented flowers. Like the last-named species, it is often met with in the double state; but all its forms are beautiful, and it well deserves more general culture. *N. juncifolius* is a pigmy only an inch or two in height, bearing two or three pale yellow flowers on a slender scape. The flowers somewhat resemble those of *N. Jonquilla*, but the cup is very much larger in proportion to the size of the flower. It is not showy, but deserves a corner in every garden where choice hardy bulbs are appreciated. Of all the *Narcissus*, however, there are few better than *N. Bulbocodium*, the flooped Petticoat Daffodil of gardens, which often flowers almost before it frees itself of the surrounding earth, each flower glowing like burnished gold. This does remarkably well in pots for conservatory and greenhouse decoration, and it should be grown in quantity everywhere. Of all hardy flowers, if we except the Broom, we know of none of a richer yellow colour than this species. A variety (*N. monophyllus*) with white flowers comes from Algeria, but it does not grow so freely as the yellow-flowered form. All the varieties of this plant are tender, and often perish during cold wet winters unless the beds are raised slightly above the general level, and the bulbs protected by a mulching of dung or leaves. I hope ere long to see these beautiful old flowers more generally grown than is at present the case. They have been grown in English gardens for the last two or three centuries; and Parkinson, in his "*Paradisus Terrestris*," published in 1629, enumerates no less than ninety-six species and varieties as being then in cultivation in London gardens.—F. W. B. (in *The Gardener*).

THE WOOD OF THE CHESTNUT TREE possesses the property of not altering in bulk when exposed to heat or moisture. For this reason it is useful for the manufacture of casks for wine or other fluids. It also possesses the advantage of not giving any disagreeable taste to the liquid contained in it. It may also be used instead of Oak bark or logwood for tanning leather and making ink. The wood of the Horse Chestnut is said to be so like the wainscot Oak, that only those who are accustomed to work these woods can detect the difference. The fruit of the Horse Chestnut when ground into powder makes an excellent paste for shoemakers and bookbinders. It is employed in Turkey as a food for horses, especially when troubled with short breath or cough. They also give it to

cows, to increase the amount of milk they yield. The prickly husks of the Horse Chestnut are also useful for tanning leather. —(From *Cassell's Household Guide* for October.)

NOTES ON VILLA AND SUBURBAN GARDENING.

Hyacinths, Tulips, and Other Bulbs.—In performing my promise given last week that I would refer to the Hyacinth and a few other sorts of bulbs, I may say that among the many different subjects that one might name as suitable for the decoration of the window or of the town conservatory none can excel, taking all points into consideration, the Hyacinth, Tulip, Crocus, Snowdrop, Scilla sibirica, and some other bulbs. Their qualification of thriving in the smoky atmosphere of large towns and the ease with which they may be cultivated in addition, as well as the certainty with which they flower under ordinary conditions—at a time of year, too, when flowers are most appreciated, give them a very high position. The Hyacinth and Tulip, as well as the Crocus, may be obtained in very many different colours; but for general culture I think my readers are likely to prefer the primary or most decided or distinct rather than the intermediate shades, although one's fancy may be indulged in if desired, for they are all cheap alike.

Among *Single White Hyacinths* there are Alba Maxima, Grand Vainqueur, Lord Grey, Queen Victoria, Grand Vidette, and Tubifera. *Double White.*—Anna Maria, Triumph Blandina, La Tour d'Auvergne, Don Grastuit, Sceptre d'Or, and La Virginité. *Single Red.*—Amy, L'Ami du Cour, Mars, Robert Steiger, Norma, and Lord Wellington. *Double Red.*—Grootvoorst, Waterloo, Regina Victoria, Panorama, Czar Nicholas, and Bouquet Royal. *Double Blue.*—Bloksberg, Richard Steel, Laurens Koster (a grand colour), Bride of Lammermoor, Albion, and Prince of Saxe Weimar. *Single Blue.*—Charles Dickens, Bleu Mourant, Baron von Tuyl, Couronne de Celle, Emicus, and L'Ami du Cœur. Besides the above, which will do for glasses as well as pots, there are some sorts in yellow or approaching that colour, also lilac, and some very dark, but I have found many of these to be delicate; and, again, they are more expensive because the colours are more rare.

Among Tulips there are the single ones, such as the early Duc Van Thol in several colours, and Pottebakker, white and yellow; Vermillon Brillant; Yellow Prince; Duc de Brabant, crimson with yellow blotch; Donna Maria, white feathered with crimson. Double sorts.—Rex Rubrorum, red, and a close double sort; La Candeur, white; Duc Van Thol, red and yellow; Duke of York; Tournesol, red and yellow; and Purple Crown. As to Crocuses, Large Dutch, yellow; David Rizzio, pale; Sir Walter Scott, white, blue stripe; Cloth of Gold, yellow with a black stripe; Queen Victoria, white; and Ne Plus Ultra, blue and white.

I must not forget the Polyanthus Narcissus, of which there are Grand Monarque, Soleil d'Or, Double Roman, States General, Yellow Prince, and Paper White. Above I mentioned the pretty dwarf-growing Scilla sibirica, a very bright blue; then there are several others, such as Scilla amona, also a blue, and some in other colours. In Snowdrops there is not much variety, there being only a single and double white tipped with green, and very pretty they are.

Having now given a list of the different bulbs I will make a few remarks upon their cultivation. In the first place, those selected for glasses ought to be put in them immediately, and those for pot culture before the month is out; for although they may be planted up to as late as Christmas it is much better to have them in early, as such things must first make root before the top begins to grow, and if they are late in being planted very often the leaf shows as soon as the root begins to grow, and they do not when that is the case flower half so well. It is true that when many bulbs are grown it may be advisable, in order to have a succession and late bloom, to pot some portion of them later on.

Now for the general treatment, taking those for glasses first. Procure rain water if possible, and fill the glasses just so full that when the bulbs are placed on the top of them it but just touches it. The glasses may then be placed away in a dark cupboard or cellar for a few weeks, or until the bulbs begin to grow, then take them out, and gradually let them have the light. When they are in full growth let them have all the air and sunlight possible without giving them a check by extremes. As the water diminishes fill up the glass to the height at first started upon. They will flower remarkably well either in the window or on the mantelshelf, as well as in the conservatory, though their proper place seems to be in the rooms rather than in the other places. For those grown in pots but a common sort of soil is needed, such as loam of a turfy nature, if possible with sand added, and about one-fourth part rotten manure. I have grown them very fairly for ordinary purposes with loam and sand only, but then they have had a liberal supply of liquid-manure water when growing fast towards flowering. Drain the pots thoroughly, and cover the drainage with some of the rough pieces of soil, to prevent the finer portions from running down

and stopping the passage of water. The bulbs may be grown in from 5 to 8-inch pots; if the former one bulb in a pot will suffice, if the latter size three will look better. Each bulb should be placed in the pot so that the top of it can be seen out of the soil; make tolerably firm about it to keep it in its place, and the soil under the bulb ought not to be pressed too tightly at first, for in time it will become solid of itself.

The directions as to soil and manner of potting apply to all the sorts of bulbs named above, but of course the Crocuses and other small bulbs may be planted thickly in order to make a better show in each pot.

After all the bulbs are potted take them to a sheltered place in the garden, place the pots on a bed of coal ashes, or, if not to be obtained, fine stones or gravel; but then as the worms are likely to work up through the stones into the pot, each one ought to stand on a piece of slate or tile to prevent the ingress of such enemies. Afterwards cover the whole of the pots with some sort of fine material; first, however, cover each bulb with a small pot, and plunge the pots deeply enough to cover the whole; when doing so those wanted out first for forcing should be placed at one end, and their position denoted by a large label; this will save much trouble. Let them remain here for a month or six weeks, protecting against frost if it comes. When taking them out to start into growth they should at first be gradually inured to the light, and be placed in a cool part of the house or frame, and gradually worked into a higher temperature, and as they grow give them a position near the glass, and afford plenty of air; water they must have frequently, their roots are very fleshy, and therefore require to be kept moist, especially when growing so fast. When they reach the blooming stage they will last much longer if taken to a more airy part of the house or room.

I ought to have said that the situation where the pots are placed should be high and dry, so that the water from the heavy rains may pass away quickly; and again, in potting the bulb I generally put some sand around it, which sometimes prevents rotting, when from circumstances there is an inclination that way. From the fact that the bulb when potted is in a dormant state, and about to be plunged in a moist soil out of doors, it must not have any water after potting. I know that has in many cases induced decay in the bulb.—THOMAS RECORD.

DOINGS OF THE LAST AND PRESENT WEEKS.

HARDY FRUIT GARDEN.

SOME time has been devoted to making the garden tidy, by weeding walks and clearing off weeds and withered leaves, which latter accumulate on the borders, and are blown by the winds into corners and against the Box edgings. Some of the Cherry trees have become badly gummed, and as it would be of no use to try any method of cure with trees that are far gone, they have been dug out, and the places will be planted with young trees. Cherry trees as standards or pyramids are beautiful objects when in blossom, but it is a rare sight to see a tree laden with ripe fruit. The Cherry is more attractive to our feathered friends than any other fruit, and the only chance of saving the produce is to net closely. Before planting trees on the same ground it is quite essential to success to trench the ground 2 or 3 feet deep, and if exhausted to incorporate some rotted manure with it; a barrowload or more of fresh mould should be placed round the roots when planting the trees, not omitting to mulch the surface with rotted manure, which should not be removed in the spring, but allowed to remain until it is washed away by the rains. If it is desirable to secure a north aspect for growing vegetables, it is much more necessary to have such a position for planting such fruits as will succeed there. In the south of England Plums of the better sorts and even Apricots have been obtained from a north wall in dry hot seasons, the main value being that the fruit was ripe when that from a more favoured position was gathered. It ought not to be forgotten that the Morello Cherry succeeds quite as well on a north wall as it does anywhere else.

By training Red, Black, and White Currants to the walls, the season of these useful fruits is to a great extent prolonged. The Gooseberry season can also be prolonged if the trees are trained to the north walls, or if planted as dwarf bushes on the borders. Mr. Whitton, the clever gardener at Thirlstane Castle, Lauder, N.B., is still gathering Warrington and Hedgehog Gooseberries from trained and dwarf bushes. The trained trees are grown against the north wall in the same manner as Currant trees. Two growths are trained right and left in a horizontal position, and about a foot from the surface of the ground. From these growths others are trained vertically and equidistant, so that when the wall is covered with bearing wood, as it is in the course of a few years, the wisdom of this method of training is at once apparent.

Many persons adopt the old method of managing Strawberries—that is, to plant the runners in beds in August 3 or 4 inches apart, and then to plant out in the kitchen-garden quarters in October. The plants should be put out at once, so that they may become established before winter. It is not expected that these

plants should bear fruit next year; usually all runners and flowers produced are pinched off as they are formed. Of course such a system cannot be recommended, as a season is lost. On heavy soils such plants produce very large crops the first year that they are allowed to fruit.

FRUIT AND FORCING HOUSES.

Vinerics.—The late houses where Grapes are hanging require constant attention, as, owing to the heavy rainfall, the berries are much more liable to mould now than they will be a month hence when the leaves are removed from the Vines. The houses are ventilated as soon as the day is sufficiently advanced to dispel the damp, and the heating apparatus is warmed and allowed to cool down again before the house is shut up at night; the ventilators should be closed at night to keep the damp out. All mouldy berries should be cut out as soon as they are perceived, as one mouldy berry, if allowed to remain, will spoil a whole bunch in a few days. We do not keep any plants in the houses, except such as do not require water.

We have pruned the Vines in the early houses, and are now washing the woodwork with warm rain water in which just a little soft soap has been dissolved; strong soapy water brings the paint off the wood, it is also injurious to the glass, which should be washed with clean water. The next operation is to wash the Vines also with soapy water, but before doing so all superfluous bark is removed with the thumb nail and finger. Many persons strip the Vine to the quick, which is wrong, as it exposes the thin inner bark to the action of the atmosphere, and the sun may also act upon it injuriously. The rods are now dressed with the mixture which has been recommended in previous numbers. It may not be necessary to remove any of the soil from the outside borders, but we take about 3 inches from the surface inside, and replace it with the previously prepared rich compost—that is, if the borders are rather poor, for it is a mistake to feed the Vines when they do not require food; such treatment will give large berries, but the first quality—flavour, will be wanting. Another object gained by removing the surface soil is, that all the eggs or larvae of insects are taken out that may be contained in it. The fresh compost should be trodden in firmly with the feet, or pressed down with the hands in corners where the feet cannot reach it. The outside borders merely require a dressing of manure, which is lightly forked in.

Eugenia Ugni.—Many persons hold this in esteem as a desert fruit. It was brought into notice very nearly twenty years ago with a great flourish of trumpets. On the strength of leading articles in some of the horticultural papers many persons bought plants, and it was grown far and wide both as a pot plant and on low walls in a warm position. It has not secured much public favour in either way; but when well grown in pots in a warm greenhouse the fruit is quite as large as the largest Black Currants, and the flavour is very pleasant. The plant is readily propagated from cuttings, and will bear a few fruits the second year. With proper treatment, in four or five years large bushes may be formed, and we never yet saw a failure. The potting material should be turfy loam torn-up by the hand, added to which is a fourth part of leaf mould and a sixth of rotted stable manure; the spent droppings of a Mushroom house answer as well as any other. It will succeed either in sunshine or shade.

Passiflora edulis.—We have gathered this for the dessert from stray plants put out in the plant stove; and as the fruit hangs for some time in good condition after it is ripe, it is often available for extra dishes when such are required to make up the table. At Drumlanrig Castle a lean-to forcing house is devoted to it, and from the trellis overhead at present hang hundreds of ripe and ripening fruit, each as large as a hen's egg. It is in great request there for dessert purposes. Its great enemy is mealy bug, which breeds rapidly in it, so that if a plant is cultivated in the stove it ought to be in a position where it can be syringed daily. The plant makes roots very freely, and hence must either be grown in a very large pot, or, what is much better, planted out in the border of the house. The same potting material answers for this as for *Eugenia*.

Melon and Cucumber Houses.—Getting ready plants for producing early spring Cucumbers. Varieties that do not produce seeds freely are grown here, and to keep up a true stock propagation is effected mostly by cuttings; and what is at present noteworthy is the difficulty—nay, the impossibility—of keeping the plants in life more than four or five months in our light sandy soil. In medium loam we have had no difficulty in keeping the plants growing for nearly twelve months. The glass had become dirty during the summer months, and must now be cleansed at all events. To keep the plants in a healthy growing condition they must have all the light possible, and as much air as can be admitted during the day in fine weather. Melons ripening should have a dry atmosphere and air admitted freely, with a temperature of 60° at night, and a rise of 10° or 15° by day.

PLANT STOVE.

Unless in warm days we do not syringe any of the occupants of this structure now, and water is applied with caution to the

roots. *Calanthe vestita lutea* and *rubra* are in flower, and are very useful for decorative purposes, as so few of the Orchid family are at present in bloom. Thinning-out any climbers that are obscuring the light from plants underneath, and cleansing the glass from dirt, which does little or no harm in summer, but it ought to be removed now.—J. DOUGLAS.

PROVINCIAL HORTICULTURAL EXHIBITIONS.

[SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held. Although we cannot report them fully, we shall readily note anything especially excellent, and we wish for information on such specialities to be sent to us.]

NOVEMBER.		NOVEMBER.	
Jersey	11	R. H. S. of Ireland	26
Bury St. Edmunds (Chrysanthemums)	17 and 18		
Cambridgeshire	19	York	1, 2, and 3
		DECEMBER.	

TRADE CATALOGUES RECEIVED.

J. Moore, Goodhope Rose Nurseries, and 52, Market Place, Warwick.—*Catalogue of Select Roses*.

J. Booth, Pole Lane, Fallowfield, Manchester.—*Catalogue of Carnations, Picotees, and Pinks*.

F. & A. Dickson & Sons, 105, Eastgate Street, and Upton Nurseries, Chester.—*Catalogue of Select Roses*.

H. Blandford, Dorset Nurseries, Blandford.—*Catalogue of Roses, Fruit Trees, Ornamental Trees, Shrubs, &c.*

TO CORRESPONDENTS.

* * All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

BOOKS (H. W. W.).—The work you name is published by T. Drew, 13, University Street, London, W.C. The price is 8s. 6d., but the edition is out of print. (J. L.).—"Florist's Flowers," to be had at our office, price 3d.

PAMPAS GRASS (C. W.).—Your Pampas Grass with 124 spikes of flowers upon it is no doubt a handsome specimen. It is not unusual for the plant to grow so large.

GRASSES (H. Lee).—Nos. 3, 7, 8, 11 are not annual.

YUCCA FLOWERING (Robertson).—It will in all probability die after flowering, but from the base will arise suckers, one or more, so that you need not have any fear of losing the plant. Other crowns will come, from which you will have flowers in due time.

ANNUALS TO FLOWER IN SPRING IN GREENHOUSE (R. S. P.).—The seeds should be sown in 4-in. pots, scattering them thinly over the surface, and be covered lightly, about the diameter of the seeds, with fine soil. Sandy fibrous loam, with a third part of leaf soil or old manure, and a free admixture of sand, will grow them well. When they are an inch high they should be thinned to that distance apart, leaving the strongest, and about a fortnight after thinning they may be shifted into 6-in. pots. They should have the highest and most airy position, watering carefully. *Asperula azurea setosa*, *cartolina aurea*, *Calandrinia umbellata*, *Campanula carpatica*, *Candytuft*, sweet-scented, *Clarkia pulchella*, and vars. *alba* and *marginata flore pleno*, *Collinsia bicolor*, *C. grandiflora*, *C. verna*, *Gilia tricolor* *rosae splendens*, *Godetia roseo-alba*, *Gypsophila elegans*, *Kaulfussia amelloides*, *Lasthenia californica*, *Leptochiton densiflorus*, and variety *albus*, *Linaria bipartita splendens*, *Lupinus nanus*, *Mignonette*, *Nemophilas attonaria*, *insidius*, *maculata*, *Nolana atriplicifolia*, *Platystemon californicus*, *Silene pendula*, and vars. *compacta*, *ruberrima*, *Venus's Looking-glass*, blue, *Viscaria oculata*, and *Whitlavia grandiflora*.

WINTERING HOLLYBUCKS, ROSE CUTTINGS, AND BEDDING GERANIUMS (St. Edmund).—Your garden being walled, we should plunge the Hollybuck and Rose cuttings in pots in ashes in a sheltered corner to the rims of the pots, and shelter them in very severe weather with mats placed on stakes, or a little hay or dry litter will answer as well, removing it whenever the weather is mild. The base of the south-east aspect will be best. The Geranium cuttings will winter safely on broad shelves in the kitchen window if you take care to see that they have air whenever the weather is favourable, and keep them duly supplied with water. Having shutters it is hardly likely your plants would suffer from frost, but on a cold night you could keep on a gentle fire. We think it is more from the drying heat that your plants will suffer than from cold. With care, however, we think you will succeed. We know a case of several hundred cuttings being wintered in kitchen windows.

WINTERING BEDDING GERANIUMS IN PROPAGATING FRAME (F. L.).—As you have no provision for affording top heat, it will unduly excite the plants into growth, especially at the roots, which ought not to have a higher temperature than 55° to 60°. Could you not expose the tank on both sides, say 3 couple of inches, so as to allow of the heat passing more freely from the tank's surface to the atmosphere? This would probably give you all the top heat you require, which should be from 40° to 45°. In severe weather, and especially at night, you might lessen the necessity for fire heat considerably by an external covering of mats, &c. Your other query was answered last week.

GRAPES NOT COLOURING (A. A., Ireland).—The most likely cause of the Grapes not colouring is too heavy cropping, with a deficiency of foliage. Black Hamburgs and all black Grapes are found to colour better with rather more foliage than the white kinds. Colour and bloom generally go together, when the crop is heavy the colour and bloom are seldom good; it is difficult to obtain large berries and bunches well coloured. The border in-side ought not to be allowed to become very dry so as to crack. Loosening the surface with a fork and making it fine will lessen the liability to crack. It is sufficient if, after the Grapes are ripe, the border be kept moist. When the Vines are at rest no water should be given; and if Grapes are hanging, and expected to hang in good condition some time, the border should be kept dry, but with sufficient moisture to keep them from shrivelling.

WATERING VINE BORDER (An Amateur).—As the present season has been exceptionally dry, you have done quite right in watering the border, the leaves being green. One watering, unless the soil was very dry, would have been sufficient after the fruit was ripe, as it is desirable to withhold water in order to secure the proper ripening of the wood, and the Vines bring in an inactive state very little is required to keep the soil moderately moist, which is all that is needed. Do not water again until you are about to start the Vines, say at the time of shutting-up, then give an efficient watering. Watering can do no good when the Vines are at rest. As a rule it ought to be discontinued after the fruit is ripe, but the soil ought to be moist until the leaves commence falling. We do not think the decay of the berries at the junction with the footstalk is due to any other cause than the watering, but it may be a consequence of too moist an atmosphere. It is usual for the roots to have the appearance you describe after the fruit has been ripe two months, but we think you have hastened the decay by the watering, which if not absolutely necessary to keep the soil moist, is positively injurious.

VINE LEAVES CHANGING COLOUR (A. A.).—The change of colour is quite natural; the wood of the Vines is ripening, and the leaves change colour before they fall.

PLANTING VINES IN GREENHOUSE FLOOR (Triepe).—If you have no border inside the house, it will depend in a great measure upon what the soil is, the means of affording water, and of carrying off the superfluous moisture, whether the Vines would succeed planted as you propose by removing a brick in the floor for planting. It is hardly to be expected that they can do much good; but the soil may be of such a kind as to be favourable to the Vines, and they may thrive. They ought to have some chance of progressing, which it seems to us they cannot have, planted in a hole in the floor of a house, the opening being only a foot square.

KNIGHT'S MONARCH PEAR DROPPING (C. Derry).—We cannot tell why your Knight's Monarch drops its fruit, considering that it is in a "free loam" and always mulched. Examine the fruit, and see if they have been attacked with a grub.

PEACH-HOUSE TRELLIS (John Elliot).—You ought also to fix a trellis to the rafters of the house, made of wire, and at a distance of about a foot from the glass. As shown on the plan sent, you do not sufficiently utilise the space.

PREVENTING POTATO DISEASE AND DESTROYING WIREWORM (Sahibi).—When the Potato crop is heavily manured it is more susceptible to disease. We think the manure you intend to use would answer; try it, and let us know the result. Cut Potatoes in half, and get some pieces of Carrot; insert the pointed end of a stick into each, and bury the pieces in the border, leaving the stick a little out of the ground to mark the place; examine them daily, and destroy the wireworms in them.

POTATOES (J. B.).—We cannot publish such strong testimonials of an unknown variety from an anonymous correspondent.

DESTROYING WEEDS IN PATH (L. Forbes).—There would be no danger in your using the following, which will keep the weeds under for a long time, destroying not only the plants but their seeds:—Dissolve 1 lb. of powdered arsenic in three gallons of cold water, boil and keep stirring, then add seven gallons of cold water and 2 lbs. crushed soda, stir the whole well whilst boiling, and with a rose watering pot apply hot to the walks in dry weather, from March to May inclusive being the best time. The above quantity will be enough for 25 square yards. An inclining board should be placed at the sides of the walks or grass to keep off the hot liquid. We do not know of anything but salt that would without some offensive ingredient rid you of the weeds. Salt will destroy them for a time. If you have Box edgings, the salt or the soda and arsenical solution above named must be kept from them, otherwise they will be killed.

FUMIGATING (J. G. H.).—Nothing answers better than a cylinder made of strong sheet iron from 6 to 12 inches in diameter. The bottom of this should be composed of small iron bars, placed close enough to allow the ashes to drop through, but not clinders. A handle may be attached to the top part similar to that on a saucepan, and a round hole in the side about an inch from the bottom should be made to admit the nozzle of a bellows. *Odontoglossums* and some *Oncidium*s, as well as some other tender *Orchids*, will stand moderate smoking. Vandas we have not yet seen injured by it. The best cultivators are shy of using tobacco in *Orchid* houses, as, if too much smoke is put in the house, a choice plant may be spoiled; they prefer rather to wash fly and thrips off with soapy water.

WATERPROOF PAPER COVERS (F. Thomas).—We should prefer calico. Cartridge paper is the best paper for the purpose. It should be damped before it is tacked upon the frame, because when dry it becomes taut. It may then be painted over with boiled linseed oil in which a little white lead has been incorporated. In nailing on the paper, a strip of tape should be placed between the heads of the tacks and the paper to check the tearing to which the paper is so subject.

HEATING PIT WITH FLUE (H. P.).—It will answer to take the flue along the front, having over it a foot of rubble, and then the soil for the plants at least a foot deep. One side of the flue might be exposed—in fact, form the side of the path, which we should have at back, with the flue entirely clear of the soil, so that you will have the flue along the front for bottom heat, and at back for top heat, and a pathway, which need not be above 2 feet wide; and the flue taking up 3 feet 6 inches, will leave you in 7 feet inside an equal space for the bed—viz., 3 feet 6 inches; 7-foot lights will not answer for so wide a pit, as you will need 9-inch walls up to the height of the flues at least, and then to the wall plates they may be 4½ inch; 9-foot lights will be required, and the front wall will need to be 1 foot 6 inches, and the back up to 7 feet. The pit may be sunk 2 or 3 feet, and the path also, so as to gain head-room, the Cucumbers being trained to a trellis in about a foot from the glass. It would be well if you could arrange to have ventilators in the front and back walls, as long lights are not readily moved.

NAMES OF FRUITS (J. R. P., Croydon).—No. 1, Black Hamburg; 2, Black Cluster. (L. J. B.).—Pears: 1, Aston Town; 2, Napoleon; 3, Ne Plus

Mouris; 4, Ne Plus Mouris. Apples: 1, York-shire Greening; 2, Red Calville; 3, Lake Sturmer Pippin. (J. Strachan).—1, Old's Apple; 2, Devonshire Quarrenden; 3, Robinson's Pippin; 4, Hawthorn-hen; 6, Kerry Pippin; 7, Wormsley Pippin; 12, Golden Noble. We cannot recognize the others. (W. R. Y.).—The numbers were put on so slightly there were only three attached when the fruit arrived. No 5, Belle de Noix; 6, Suffolk Thorn; 8, Beurre de Rances. The fruit with the brown side is Chautauque. (S. S., Thetford).—No. 1, Beurre de Rance; 2, Knight's Monarch. The seedling Apples are very handsome. No 1 is very much of the character of Gloria Mundi, and No. 2 is in the way of Franklin's Golden Pippin. We will keep them till they are ripe, and then report more fully upon them. (T. Cooper).—2, Lamb Abbey Pearmain; 3, Sturmer Pippin; 4, Surrey Flat Cap. The others appear to be older Apples, which we do not know. We have no recollection of having seen your former parcel. Did you pay the carriage? For if you did not, it, like many others, would be refused. (H. M., Surlingham).—1, Aston Town; 3, Vicar of Winkfield; 5, Eton; 6, Easter Beurre; 7, Knight's Monarch; 8, Brown Beurre. Apples: 1, Golden Reinette; 2, Bleu-henri Pippin; 3, Bradlock's Nonpareil; 5, Wormsley Pippin; 6, Hertfordshire Pearmain; 7, Kerry Pippin. (Shirley).—1, Hollandbury; 2, London Pippin; 3, Winter Peach; 4, Murgil; 5, Franklin's Golden Pippin; 7, Marmalade Pippin; 8, scarlet Nonpareil. (S. M. W.).—Apples: 1, Anjou Reinet; 2, Bleu-henri Pippin; 4, Hollandbury; 6, Beauty of Kent; 8, Dutch Monarch; 10, Golden Winter Pearmain; 12, Bunselow's seedling; 13, Nonpareil; 14, Pittsford Russet; 17, Pittsford Russet; 19, Golden Reinette; 20, Early Morning; 24, Hawthorn-hen. Pears: 1, Glou. Moineau; 2, Marie Louise; 3, Urbaniste; 4, Van Mons Lion Leclerc; 5, Passe Colmar; 6, Brown Beurre. It is a pleasure to name such specimens as these. (Francis and Arthur Dickson & Co.).—2, Vicar of Winkfield; 3, Marie Louise; 4, Botten; 8, Vicar of Winkfield; 9, Beurre d'Arenberg; 10, Flemish Beurre; 11, Vicar of Winkfield; 12, Marie Louise; 13, Botten; 14, Orange Bergamot; 17, Black Worcester; 19, Figue de Naples; 20, Botten; 23, Beurre Blanc des Capucins; 24, Red Doyenne; 24, Beurre d'Al. Apples: 1, Mère de Ménage; 2, Early Morning. (T. G., Orkwood).—It is Catawba, an American Grape. (Robert).—The fruit was quite smashed, and the juice had obliterated the numbers on the papers. We can only say that the white one is White Tokay. (G.).—The Pear is Noreau Potée, and the Apple Keswick Codlin. (W. S. G.).—1, Brown Beurre; 2, Glou. Moineau; 3, Pile's Russet; 4, Scarlet Nonpareil; 5, White Magenta Bonum. (A. J.).—1, Louise Bonne of Jersey; 2, Fondante d'Automne; 3, Van Mons Lion Leclerc; 4, Bergamotte Esperen; 5, Suffolk Thorn; 6, Vicar of Winkfield; 8, Sturmer Pippin; 9, Court-pendul-Pippin; 10, Robinson's Pippin; 11, Sturmer Pippin; 14, Flemish Bon Chretien.

NAMES OF PLANTS (Co. Antin).—We cannot undertake to name *Borists* varieties of *Fuchsias*. (G. S.).—Your *Agave* is *A. crinitus*.—M. J. B. (*Laquiere*).—*Cyathus vernicosus*.—M. J. B. (*Lady King*).—*Abies Menziesii*; *Cryptomeria elegans*.

POULTRY, BEE, AND PIGEON CHRONICLE.

THE POULTRY-KEEPER.—No. 23.

PARTRIDGE COCHIN.—COCK.

The principal characters of the plumage of the cock are like those of the hen; but the markings are on a ground of dark tan, which render here and there the characteristic marks doubtful, which are more apparent in the breast, the hind parts, the thighs, and the feathers of the feet. The shoulders, the back, the coverts of the wings, are of a dark red mahogany. The hackle and the lance-shaped feathers are bright red and dark gold. The tail is iridescent black. In England birds with the darkest possible breasts, and approaching to black, are preferred to those with brown breasts. The three varieties, Cinnamon, Buff, and Partridge, are natural productions, and do not seem to come from any cross.

WHITE COCHIN VARIETY.

It is supposed that the White, which should be without any dark mark, has been obtained by repeated crossing of the Buff Cochin cock and the White Malay hen. They often come out with red or coffee-colour tinges; these should not be bred from. A run of White Cochins of fine quality is most bright and attractive.

BLACK COCHIN VARIETY.

The Black variety seems to have been obtained by the union of a dark Cinnamon Cochin cock with the Breda hen, which is of a beautiful black, and is not unlike the Cochin-China hen. This variety is highly esteemed as much for its beauty as its productiveness; but it has two defects: The greater part of the cocks are generally marked on the hackle with red, and sometimes on the shoulders and lance-shaped feathers; also, the cocks are, and that without exception, more or less marked with white at the root of the tail sickle feathers. These marks are not easily hidden, for they generally reach to the middle of the feather. The white marks appear equally on the feathers of the feet in the cock and hen, and this especially after the moulting of the second or third year.

But these drawbacks render the specimens without such marks more valuable, and they are more sought after. Certain amateurs admit, provided the birds are well shaped, the Black Cochin with red hackle, and these are their reasons:—

First, the white generally appears less with birds the issue of the cock with red hackle.

Second, it is almost always amongst the cocks with the red hackles that the best-shaped and largest specimens are found.

Third, these red cocks reproduce black cocks as often as do the black ones.

Fourth, they produce stronger hens, better shaped, and of a purer black.

A more important question seems to be the colour of the feet. Some people say they should be yellow, others that they should be black. Here there is no hesitation necessary. The black feet is in conformity to the colour of the rest of the bird, and further, is excellent to eat. The chickens when hatched are speckled black and white, but the white gradually disappears.

TUNBRIDGE WELLS POULTRY SHOW.

This Association holds its annual meeting always in October in conjunction with the Agricultural Show, and the poultry department, to which we principally directed our attention, was this year better than ever. We once heard a story of a gentleman who had just started farming, and who was quite a novice at the pursuit. He asked a friend when was the proper time to plough his fields; he was told, when there were no ploughs to be lent, and all the farmers were using them themselves! Not so, however, with a poultry show. The time most certainly to hold one is when no other town is holding its exhibition, if that happy time can be found. Tunbridge Wells hit on it, however, this year, which accounts no doubt for the quality and quantity of the entries. Mr. Hedley always judges at Tunbridge Wells. He is as well known as the Secretary himself. This year, however, the entries were so numerous that another Judge had to be engaged as well, and the selection fell on Mr. W. J. Nicholls, so well known for his kind courtesy at the Palace Shows. We were glad to meet him here, and hope we may soon find him again in the same office. The awards in nearly every case were most satisfactory. Mr. Hedley judged the Game, Dorkings, and Hamburgs alone, Mr. Nicholls the Cochins, Brahmas, and French. The other classes the two Judges did together.

Dorkings came first on the list. There were a great many crooked-breasts. The first were nice smart birds, in good feather, but not very large. Second were good Whites, but with rather stained ears. Third very fair. Mr. Cheesman's highly commended pen would have been first, only there was a spur growing outside. Pen 3 (Mrs. Stratford) were huge Whites, but the cock very crooked-breasted; still we almost think their great whiteness and size should have overbalanced this defect. **Cochins**, Buff, were very few. The first-prize pen had a fair cockerel and a very good pullet; her comb was not good, or else we should have thought her as good as any we have seen this season. The second had a fine Cinnamon cock, but a poor hen. In the Variety Cochins class all the prizes went to Whites. The first and second were won by Mr. Woodgate with two pairs of chickens, good in all points, and well shown. The first-prize cockerel was a very grand bird. Third had a weedy cockerel, with a hooked but good pullet.

Brahmas were splendid classes, both the Darks and Lights. The first-prize Dark pullet was a picture; we almost think her pencilling the best we ever saw; had she a little more leg-feathering she would be the best we have seen for a long time. The cockerel with her was too young. The other prize pens were good also. The first and second Light Brahmas were two good showy pens. We should have penned them differently, placing the second pullet with the first-prize cockerel, and *vice versa*; they would have matched better thus. Though the second pullet was bad in comb, the first was really good, but she lacked leg-feather. The third were good-shaped but very young birds. Pen 47 (Lemo) had a splendidly-shaped cockerel. Highly commended, Pen 61 (Haywood), good.

Spanish were poor. We missed the quality of former shows of this Society. The best pen of Spanish in the Show was a pen of chickens, which from some mistake were entered in the Brahma class, and consequently thrown out.

The **French** mustered well. In **Houdans** all the prizes went to Faversham, and three grand pens they were. We seldom saw a better pullet than the first-prize; she had just that mixture of colour we admire, but all the cocks' combs were too like the Crèves. The second cockerel we should have penned with the first pullet. Highly commended 69 (Hibbert), a good cockerel. The first Crèves were very fine, the only perfect-coloured birds in the class; they walked in. Second nice old birds. Third well-grown chickens.

The **Hamburgs** were wonderful. We certainly never saw such good ones at this Show before. First, second, and third were all Gold-pencils and good specimens. Pen 93, very highly commended (Cresswell), had a most exquisite cockerel, but the pullet was too pale on the breast, or they would have been near winning. In the Spangles, the first Silvers were quite lovely; the spangling and colour perfectly wonderful, and with such style. The second were good but young Golden-spangles. We were sorry to see no Blacks in the Variety Hamburg class.

The **Game** were very good. Mr. Fitz-Herbert came off well. We do not think we liked the first-prize Black Red cockerel so well as the same exhibitor's second or even highly-commended bird. The third Reds were a smart pen. In the next Game class Piles won all the prizes. The first pullet was a great beauty, of admirable shape, and good in head. Third also good. A capital pen of Duckwings (Sandford) were highly commended.

In the Variety class **Silbies** were first and second, and we never saw two better pens; they were simply perfect; we thought there was hardly anything to choose between them. The first pullet was a little yellow, the first cockerel had the best comb, and the first pullet was rather poorly leg-feathered. Third went to good Silver Poles; the hen one of the best out, but the cockerel not through his moult. The **Selling** classes were large, but not up to much; in fact, we never saw fewer bargains. Bantams were all muddled together. This gives neither Judge or exhibitor a fair chance. First and third went to Sebrights; we almost preferred the third to the first. The second prize went to good White-booted. Pen 195, very highly commended (Long), good; pen 199 (Lee), good Silver Sebrights, but the tail was too cloudy.

The **Ducks** were wonderful. The first Aylesburys were a grand pen; in fact, they were quite out of the common way. Second also a good pen. Rouens good, first especially so. The Variety classes were beautiful, and called forth much admiration. **Geese** and **Turkeys** were really good classes. The prize Turkeys were in very fine feather.

PIGEONS were all in two classes, the first for two pairs, the second for single birds. In the latter class a splendid young Carrier won; it was good in each point, his only blemish was a little white between the legs. Second a good **Dan Carrier** Cock. Third a nice **Antwerp**. These classes made a pretty finish to this charming little Show.

DORKINGS.—1, H. Humphrey, Ashington, Pellsborough. 2, Lady A. Nevill, Frigate Castle. 3, H. Mills, Dorking. *hc*, Mrs. W. Stratford, West Malburg; R. Cheesman, Westwell, Asford (2); W. Goodwin, Withyham.

COCHINS.—*Cinnamon or Buff*.—1, Mrs. A. Christy, Edenbridge. 2, G. E. Smart, Tunbridge Wells. *Any other variety*.—1 and 2, R. S. S. Woodgate, Pembury, Tunbridge Wells. 3, G. F. Talbot, Edenbridge. *hc*, Mrs. Christy; Mrs. Wilde, Cuckfield.

BRAHMAS.—*Dark*.—1, M. Lemo, Markyate Street. 2 and 3, W. Jacob, Shepherds-well, Dover. *hc*, J. Long, Bromley Common. *hc*, R. Sheppard, Tonbridge. *Light*.—1 and 2, S. B. 14, Old Hastings. 3, T. Brown, Hartham. *hc*, M. Broad. 4, J. Long. *hc*, F. Haines, Edenbridge; A. Smith, Goudhurst; S. P. Broad, Reigate; E. Haywood, Uckfield. *c*, H. Stead, Tunbridge Wells.

SPANISH.—1, Mrs. Brassey, Normanhurst Court, Ratton. 2, J. Francis, Hildenborough, Tonbridge. 3, H. Stephens, Tunbridge Wells.

HOUDANS.—1, 2, and 3, W. Dring, Faversham. *hc*, G. W. Hibbert, Godeley, Hylte; E. Haywood.

CRÈVES.—1, W. Dring. 2, Mrs. A. Christy. 3, G. W. Hibbert. *hc*, Miss A. Sharpe, Tunbridge Wells.

HAMBURGS.—*Pencilled*.—1, J. Long. 2, A. F. Faulkner, Thrapstone. 3, G. J. Lenny, Lewes. *hc*, O. E. Cresswell, Early Wood, Bagshot. *hc*, J. Long. *Any other variety*.—1 and 2, J. Long. 3, C. E. L. Lucas, Maidstone.

GAME.—*Black or Brown Red*.—1, 2, and 3, G. H. Fitz-derbert, Sevenoaks. 4, A. Ward, West Farleigh. *c*, S. Tompsett, Groombridge. *Any other variety*.—1 and 2, G. H. Fitz-derbert. 3, H. Ritchie, Eridge. *hc*, M. Sandford, Martin, Dover.

ANY OTHER DISTINCT VARIETY.—1, S. P. Broad. 2, R. S. S. Woodgate. 3, J. Long. *hc*, S. P. Broad; R. S. S. Woodgate.

SELLING CLASS.—*Cock*.—1, T. Brown. 2, R. S. S. Woodgate. 3, H. Stephens. *hc*, M. Lemo. *hc*, R. S. S. Woodgate; H. White, Wateringbury. *c*, N. Edghill, Frant, Tunbridge Wells. *Hens*.—1, H. Mills. 2, Mrs. Wilde. 3, Dr. Angier, Tunbridge. *hc*, T. Brown. *c*, W. Goodwin; H. Stead.

SELLING CLASS.—1, H. Humphrey. 2, W. Dring. 3, Rev. N. J. Ridley, Holington House, Newbury. *hc*, Rev. A. W. Ward, Little Horsted Rectory, Uckfield; C. Oswin, Hawkhurst; R. S. S. Woodgate. *c*, H. Stead.

BANTAMS.—1 and 2, M. Lemo. 2, R. S. S. Woodgate. *hc*, Master M. V. Sandford, Dover. *hc*, C. Woodman, Southborough; Mrs. Lee, Censhurst, Tonbridge.

DUCKS.—*Aylesbury*.—1, F. E. Arter, Barham, Canterbury. 2 and 3, N. Edghill. 3, G. Ware, Frant. *hc*, W. Jacob. *c*, Mrs. A. Christy. *hoyou*.—1, A. Ward. 2, H. Stead. 3, G. Ware. *hc*, G. F. Field, Ashurst; E. Haywood; M. Brassey. *c*, Earl of Aberghenny, Eridge Castle. *Any other variety*.—1 and 2, M. Lemo. 3, S. P. Broad. *hc*, E. Haywood; R. S. S. Woodgate.

GEES.—1 and 2, G. F. Field. 3, Mrs. Lee. *hc*, A. J. B. B. Hope.

TURKEYS.—1 and 3, A. Ward. 2, Marchioness Camden. *hc*, Mrs. Brassey; R. S. S. Woodgate. *c*, Earl of Aberghenny.

PIGEONS.—*Any variety*.—*Pairs*.—1, Mrs. Lee. 2, N. Duckworth, Tunbridge Wells. 3, G. H. Fitz-derbert. *Any variety*.—*Single bird*.—1, Col. F. Hassard, Sevenoaks. 2, M. Lemo. 3, C. Elliot, Southampton. *hc*, M. Lemo; W. Hoag, Oakley, Tunbridge Wells; Col. F. Hassard; A. Bentley, Clements Lane, Lombard Street (2); G. J. Lenny; C. Elliot.

RABBITS.—*Any variety*.—1, W. Layton, Edenbridge. 2, J. Ellis, Reigate. 3, Mrs. W. Stratford. *hc*, B. S. Whitton, Highbams, Goudhurst; — Mathewick, Frant (2). *c*, H. Stephens.

JUDGES.—Mr. H. Hedley, Claremont, Redhill, Surrey; and Mr. W. J. Nicholls, Saffron Hill, Farringdon, London.

NOTTINGHAM POULTRY SHOW.

ALTHOUGH some of the arrangements connected with this Show were decidedly behindhand, much excuse may be fairly urged in favour of the managing Committee, who were all of them quite new to their work, it being their first attempt to establish a show in the town. The entries, too, were far beyond the expectations of most, if not all, the gentlemen composing the Committee; and we were told that little more than a month back the holding of a show was not even contemplated. We may safely add that a more uniformly obliging Committee to every applicant for information is of rare occurrence. Again, although the time the Show continued open was very far too long for chickens unaccustomed to a show pen, the condition in which the fowls reached their owners bespoke a constant and well-directed attention to them during the whole time they had been exhibited. Messrs. Turner's pens erected in a most suitable building constructed entirely of wood, but with a tightly strained canvas roof, proved admirably efficient for general purposes; but three tiers of pens should always be avoided if possible.

In *Game* fowls many of the best specimens, particularly adults, were mostly quite out of feather; but most of this year's chickens, which proved to be the majority, made the *Game* classes unusually good. It is years since so many really good-coloured Duckwings were shown so early in the season. All the *Cochins* were well represented; the *Buffs* of 1871 promising to shortly quite excel the older and well-known winners of the past summer. Partridge-feathered, though exceedingly good, could not be seen to advantage from being in the lowest pens of all, where, unhappily, a close approach to general darkness prevailed. *Brahmas* of both colours formed a very fine collection, the *Dark* ones being decidedly the better of the two; the pencilling on a majority of the pullets was never excelled. Mr. Beldon with his so generally and so well-known stud of *Hamburgs* was enabled to hold his own pretty uniformly, but only under a very severe competition in all the varieties. The collection of *Bantams* was, as of late the rule, of great merit; the Silver-faced *S-brights* mastering very strongly and well. The *Aylesbury Ducks* would not have disgraced any meeting, even *Aylesbury* itself; and in a good entry *Whistling Ducks* and the *Carolinians*, or *Summer Ducks* of America, were shown in gorgeous feather. Had not so much care been evinced by the acting Committee, the weather would have been adverse to success; but as it was, visitors were abundant, everyone was well pleased, the rain did no injury, and the pecuniary success was as far beyond expectation as it was well deserved.

The names of the Judges and list of awards were given in our last issue.

(From a Correspondent.)

THE first Nottingham Poultry and Pigeon Show was held from the 2nd to the 6th, in a commodious wood building erected for the purpose in the Market Place, and as a first show we think the Committee and the Secretary may be congratulated on their attempt, as the entries were large, there being 513 entries in poultry and 233 in Pigeons, and we were informed that the Committee had to refuse upwards of a hundred entries from want of room. We should have been glad if more room could have been had, as the space for the number of entries was insufficient, and as a necessity many of the pens were upon the floor, which, in addition to those pens being dark, did not give the Judges an opportunity of so thoroughly inspecting them as is necessary. We would also say that the Judges had not sufficient time, as the Show was advertised to open at twelve o'clock, and by some means the Judges could not commence until nearly 10.30, although they were ready at eight, as requested by the Secretary. We think this a great mistake, but no doubt these matters will all be remedied another year, as both the Secretary and Committee seem able and willing to do anything they see for the improvement of the Show. Mr. Hewitt judged the *Game*, *Dorkings*, *Cochins*, *Brahmas*, *Aylesbury Ducks* and variety *Ducks*; and Mr. Dixon the *Hamburgs*, *Spanish*, *French Fowls*, *Bantams*, *Selling classes*, *Rouen Ducks*, *Turkeys*, and *Geese*. The *Pigeons* were judged by Mr. Esquilant and Mr. Allsop.

The *Game* classes were all well filled, and in addition to the prize birds many were very deservedly highly commended. The first class, *Black or Brown Reds*, had fourteen entries, and in addition to the four prizes four were highly commended. First, second, and fourth were *Brown Reds*, third *Black Reds*; all good. In hens the first and second were *Black Reds*, the third and fourth *Brown Reds*; three were very highly commended, and three highly commended. This was a very good class. In Any other variety the four prize birds were all good, and the same may be said of the *Hens*; the first and second were *Duckwings*, third *Pile*, and fourth *Duckwing*.

In *Dorking* cocks Mrs. Arkwright was first and second with two capital birds; the third and fourth were also good. We very much admired the first-prize pullet shown by Lady A. B. Peirse; we thought her the best out this season—a capital colour, large frame, good in leg, in fact not a point wanting. The other three prize birds were all good. In *Dorkings*, Any other variety, the entries were not large; but the prize birds were of fair average quality.

The *Cochin* cock class had only eight entries. First was a good large old bird; the other three prizes went to good cockerels. The hen or pullet class had sixteen entries, and a better lot it has not often been our privilege to see. The four prize birds were all of great merit; five were very highly commended, and six highly commended, so we can see Mr. Hewitt's opinion of them. The *Partridge* class was well represented—ten cocks, and seventeen pullets or hens; all the prize and commended birds were of great merit. The four prize birds were all cockerels; but in hens or pullets the awards were reversed, all went to hens. This was a very good class; three were very highly commended, and three highly commended.

We now come to the *Brahmas*. *Dark* cocks or cockerels had sixteen entries; the prize birds were all of great merit, and we thought them well judged. In hens or pullets there were twenty-eight entered; the first was a grand hen; the second a pullet of

unusual quality, colour, and shape—all that could be desired; the other prize pullets both good. The same may be said of the four very highly commended pens, and in addition four were highly commended, and three commended. This was really a good class. In *Light Brahma* cocks there were twenty entries. The prize birds were good; but we did not like this class so well as the pullet class, which had twenty-five entries. The first and second were good hens; third a capital pullet; four in this class were rightly very highly commended, and four highly commended.

In the *Hamburg* classes *Gold* and *Silver* competed together, a plan we do not like. In cocks or cockerels first was a nice *Silver*, second and third good *Gold*; we also liked the very highly commended one. In hens or pullets there were fourteen entries. First and third *Golden*, second a good *Silver*. All were birds of this year. One pen was very highly commended, and three highly commended. In *Spangled Hamburgs*, the first cockerel was a splendid *Silver*, second a capital *Gold*, third a good *Silver*; the three highly commended pens were also good. In hens or pullets we thought the first-prize pullet about the most perfect one we ever saw, and it is likely she will be heard of again; the second and third were both good, and four pens were highly commended.

In *Spanish* the first was a very good deep faced cockerel with capital comb; second an adult, very good in face and comb; third a very good cockerel. In hens or pullets the first and second were very good large-faced hens; the second we thought in the catalogue priced below her value—35s., but as they were to be sold by auction, probably she would realise more. Two were very highly commended, and two highly commended.

The *Houdan* classes were very large—nineteen cocks and thirty-one hens or pullets. In cocks we were much pleased with Mr. Wood's two pens; they were large-framed birds, and good in all points. The third and fourth were both very good; one was very highly commended, and four highly commended. In hens or pullets the four prize birds were all adults, and large well-marked birds; one was very highly commended, and eight highly commended. This was a really good class. The Any other variety *French* fowl had some very good *Croves*, but the classes were not large, only five and six being entered in the two classes.

In Any other variety cocks was a good *Poland*, second a very good *Black Hamburg*, third a good *Malay*; in hens first a splendid *Black Hamburg* pullet, second *Golden Poland*, third *Malay*.

The *Game Bantam* class, *Black or Brown Red*, had twenty-two entries; the first and second very good *Black Reds*; third were *Brown Reds*; three pens were highly commended. *Game Bantams*. Any other variety, first were a pen of very stylish *Piles*, good in all points, second *Duckwings*, and third *Piles*; three pens were highly commended. In *Bantams*, Any other variety, good *Gold-laced* were first, *Blacks* second, and *Silver-laced* third. Two very good pens of *Gold* and *Silver-laced* of Mr. Leno's were very highly commended.

In the *Selling* class Mr. Leno was first with a good *Light Brahma* cockerel; *White Cochins* were second, and *Spanish* third. In pair of hens there were nineteen entries; first were a nice pair of *Light Brahmas*, second *White Cochins*, and third *Dark Brahmas*; five more pens were highly commended.

The *Duck* classes were all good, and the entries pretty numerous. *Geese* and *Turkeys* were of fair average quality.

PIGEONS.—The *Carriers* were the first on the list; first was a grand *Duo*; second a *Black*, nearly equal; third a good *Dan*. The highly commended pens were all good birds. Mr. Yardley was first in hens with a first-class hen; and Mr. Horner was close upon him with second. In *Carriers* hatched in 1874 one exhibitor won all the three prizes with very promising birds. *Pouters* were not large classes; but the winners deserved their position. In *Barbs* the winners were very good; first were *Yellow*, second and third *Black*. The *Tumblers* were good classes, eight entries in cocks, and nine in hens; the prize birds all very good. In the *Dragon* class there were seventeen entries, Mr. Graham and Mr. Gamon taking the prizes with very superior birds. The *Fantails* were good, and the prizes well placed. The *Owls* and *Trumpeters* were both good classes, and we thought well judged. *Jacobins* were very good, and four pens highly commended. The remainder of the classes were all of considerable merit, and many high commendations were awarded.

DARLINGTON ORNITHOLOGICAL SOCIETY.—This great event in cage-bird circles is to come off in the Mechanics' Hall, Darlington, on Friday and Saturday, November 13th and 14th, under distinguished patronage. The Show is open to all England, and the schedule contains thirty-two classes of nearly all the known varieties of *Canoaries*, *Mules*, and *British* and *foreign* birds. The prizes in twenty-eight classes are £1, 10s., and 5s.; and in four other classes, *British* birds, 15s., 10s., and 5s. This may be considered one of the best schedules yet issued, and the growing efforts of the spirited Committee are worthy of all support. Besides the above money prizes there are ten special prizes,

M. Garside, Broughton, Manchester (Carriers); P. Higgins, Northampton (Blue Dragons); J. Osborn, Northampton (White Dragons).

RABBITS.

LOP-EARED.—Back or Doe.—Crust Stand, J. Boyle, Blackburn. 2, Mrs. H. Pickworth, Mount Mars, Spalding. 3, F. Lovelock, North Street, London. Extra 3, R. H. Baldwin, Kingsthorpe, Northampton. *See* J. Levings, Blackburn; J. Crauch, St. John's Wood, London; J. Mason, Hull; F. Schiedel, jun., Cheetham, Manchester. *See* R. Robinson, Millersburg; J. Hunt, York; F. Lovelock; F. R. Edmondson, Liverpool; W. Canner, Leicester; F. Schofield, jun., & G. Balles, Newbury; Brown, Gayton.

DUTCH.—Back or Doe—1 and 2. F. Sabbage, Northampton. 3, J. Mason, Hull; J. Boyle; C. Martin; T. Gruner, Kilsthorpe, Northampton. c. Rev. T. C. Beasley, Dallington, Vicarage, Northampton; Tebbutt & Foster; J. C. Irving.

ANGORA.—Back or Doe—1. W. Bowes, Elmhurst, Darlington. 2 and 3, T. Garner. *See* J. Martin. *See* T. Garner; J. Martin. c. S. Siskins, Wolverhampton.

ANY OTHER VARIETY.—Back or Doe—1. S. Ball, Bradford (Silver-Grey). 2, R. H. Baldwin (Himalayan). Extra 2 and 3, Tebbutt & Foster (Himalayan and Belgian Har.). Extra 3, G. Wood, Clapton, Thrapstone. *See* Tebbutt & Foster (Himalayan). *See* A. W. Whitchose, Northampton (Silers); F. Schofield, jun. (Silver-Grey); J. Boyle (Silver-Grey); E. Komus, n. Kettering (Silver-Grey); H. Hucks, Humberstone, Leicester (Silver-Grey); J. Steoder, Fingewick (Silver-Grey). c. J. Felling, Leeds (Himalayan).

SILVER CLASS.—Back or Doe—1. Tebbutt & Foster (Himalayan). 2 and 3, F. Sabbage. *See* J. Steoder; E. Robinson; T. Garner; F. Lovelock. c. W. H. Crews; Mrs. Francis, Northampton.

SPECIAL PRIZES.

Cup for Canaries won by J. Adams, with twenty-seven points.

Cup for Pigeons won by H. Yardley, for best pen.

Crust Stand for Rabbits won by J. Boyle, for best pen.

JUDGES.—Cage Birds: Mr. W. Walter, Winchester; Mr. J. Buxton, Derby. **Pigeons and Rabbits:** Mr. E. Hutton, Paisley.

NOTTINGHAM AND ITS CANARY SHOW.

It is not my intention to enter into all I was eye-witness to in the good old town of Nottingham, famous for many things—notably its lace and the ruins of a once-famous castle. The "Goose fair" is of a world-wide renown, claiming as it does the good old age of 500 years, the fair having been established in the year 1241. My visit was not confined to the attractions in the vast market place, covering as it does an area of five acres, not one foot of which space was unoccupied. "Music hath its charms," but I was far from being charmed with the continuous deafening din of the busy vendors of ginger-bread and oysters, mingled with the wry-mouth cry here and there of "ten-a-penny-wanants;" the barking and howling of the dogs (it was the dog show); the blaring sounds of the musicians, not omitting the goings in front of the several wild beast, and acting, and a waxwork establishments, with the now-and-then energetic appeals from inviting stagers to "wauk-up," accompanied with the far from pleasant feat of elbowing one's self through the many thousands of human and inhuman beings. This to me was the reverse of harmony. However, I got through my difficulty and sought a shoe-black, after satisfying myself that my watch was all right. Nottingham would be at a discount without a display of Michaelmas Geese (some of which, by-the-by, are ganders); and having taken a glance of the same, mostly clothed with feathers of Embden whiteness, besides numerous other "geese" with no feathers at all, but withal that might be white enough the following day, I wended my way towards the Bird Show.

The town appears to be plentifully provided with dogs (a lucrative matter no doubt so far as the dog-tax is concerned), mostly of the breed called fox-terriers, but which appeared to me to be of the bull, snap, and terrier crosses; but on this point it would be better to "sing slow," rather than venture a remark to the effect that they were ought else than the pure type of fox-terriers, if by chance you might get into the company of some of their owners. Still I have reason for knowing there are to be found in the locality some of the right sort. Perhaps the best were at the Show. The dogs at large might, as it were, have understood that the occasion was a special one, for in the particular part of the town (Hockley), I had to pass through, there was to all appearance a conference of the canine community ready to exercise their pugnacious propensities. There were six in one group, and just as I was passing two of the most ferocious brutes threw me into a sudden paroxysm of terror by having a "go in" (as a Nottingham costermonger would say), in close proximity to my heels. Such notable personages as costermongers seem to be the reverse of scarce at Nottingham. Rumour spoke of a "set-to" in the P. R. somewhere on the outskirts of the town, and I did hear the name of one of the combatants, which commenced with the second vowel. I must not omit mentioning that a poultry and Pigeon Show was also being held, but my mind was bent more particularly upon the cage birds, to which I shall now confine myself.

The three-days Bird Show, held in the St. John's School-room, near the Great Northern Railway station, opened at midday on the 5th inst., soon after the Judges had completed their duties. To the "fancy" in particular it was a "feast of feathers," many of whom assembled from various parts of England to witness that which was looked upon as the first important show of the season for Norwich-bred birds. I really believe the sensation respecting the high-coloured birds has not abated one jot since last year, and "great expectations" were looked forward to by all who have been persistently endeavour-

ing to outvie each other for colour. Rumour had got abroad that there was something hot in the Canary world, and there was no wonder at it considering the quantity of cayenne pepper that must have been used to bring the birds to such high colour. It was whispered that Mr. ——— would bring forth "a fleet" to defeat all comers. Nothing daunted, one ambitious exhibitor had gathered together thirty showy specimens to win the principal "special;" but his endeavours were of no avail, for Mr. Evans's aggregate number of twelve points was placed *hors de combat* by Mr. Adams's thirty-two points gained with sixteen birds, thus entitling the latter exhibitor to the beautiful "service," and Mr. Evans's pluck being rewarded with a full-sized "cup," large enough to invite those who had assisted him in winning the second "special." The Nottingham fanciers had faith until the day that none could compare with their own specimens, and they too were warm, but when the "curtain was drawn" that faith vanished.

"But things like that you know must be
After a famous victory."

The number of birds entered for the Show did not come up to my expectation, but the quality was "all there." The cause of this in a great measure was, no doubt, owing to the Northampton Exhibition opening the day the Nottingham Show closed. This is to be regretted, for several exhibitors had to divide their entries and give each a turn. It is an unwise plan to let shows clash where it can possibly be avoided.

In the first class, *Clear Yellow Norwich*, Mr. Adams of Coventry ran an easy race, walking in with first and second, "hands down;" still Mr. Audley's third, to use a modest term, was a nice bird. The first-prize Yellow was not a large bird, but well up in colour. It was claimed at the catalogue price of 30s. by a gentleman who, I afterwards learned, transferred his purchase. The bird was cheap at the sum, but the greatest surprise to many present was the fact that the bird had become the property of a Derby fancier. Whether Derby fanciers are in the background or not this season time will tell. What a change in a year! "Oa! Cherrybum, Cherrybum! Where art thou, Cherrybum?" Can no one rush in to the rescue? In *Clear Buffs* Mr. Adams was again first and second with a couple of splendid birds. Mr. Tomes, one of the oldest of the Northampton school, came in for third with a richly-plumed bird.

The first prize in *Variegated Yellows* was awarded to a "loud"-looking bird belonging to Mr. Adams, the second and third prizes completely paling beneath it, albeit they were comely specimens. The second was given to Mr. Audley of Leicester, the third to Mr. Watson, Derby. Mr. Adams next won first honours in *Variegated Buffs*, Mr. Evans being second and third. There were several birds of high commendation in each class.

In *Ticked Yellows* the first was withheld, the second prize being awarded to a very deserving fair-coloured and condition bird belonging to Mr. Graves of Nottingham. Mr. Tomes's bird won a third. In this class the specimens were few and far between, and the quality generally not up to previous classes. In *Ticked Buffs* Mr. Adams was to the fore, the second and third prizes being deservedly accredited to birds belonging to Mr. T. Smith. Throughout nearly the entire class the specimens were of exceedingly good quality and condition, excepting one from Norwich, which would have been better at home to finish its moult.

The *Yellow Crested* beyond the first three birds were moderate. Messrs. Clarke & Newton, Nottingham, gained first and third positions; Mr. Roberts being second. The *Buff Crested* throughout the class were excellent, and must have exercised the patience of the Judges in discriminating. However, Mr. G. Dolman, Nottingham, came in for the first place with a bird possessing a crest, every feather of which was in its place. The second prize was awarded to a bird belonging to Mr. Torr, Derby, which will somewhat improve when the crest is fully blown. Mr. Goode, Leicester, exhibited a good bird, and it is not the first time he has done so.

Belgians were a mixed lot, some in position and others much out, and looking more like "Dutchmen." Mr. H. W. Man, Middlesborough, had no difficulty whatever in winning the first prize with his famous Yellow bird, and leaving in the distance all others. The second and third birds must have taken more judging; still, Mr. Whitaker with his promising third-prize Buff had to succumb to Mr. Wilcockson's second (a Yellow), a very good bird of the right stamp. It does one good to find occasionally a new aspirant for "Belgian" fame, but such was the case here, one Mr. Davis of Wolverhampton putting in an appearance with a specimen which gained for him a "v.h.c." It is high time that Wolverhampton issued its schedule for a bird show.

Lizards.—Messrs. Cleminson & Ellerton of Darlington took first prize with a fine-made Jonque, thus maintaining the prestige hitherto gained by Lizard fanciers in that neighbourhood. Mr. S. Godber, Nottingham (an old Lizard fancier), won the second prize, and Mr. Richards, of Bulwell, third—both capital birds. The first prize in Silvers was an easy win, Mr. Roberts, Derby, exhibiting a truly neat and splendid hen. Mr. Richards was

second, and Mr. Godber third. In both the *Cinnamon* classes Mr. Adams completely eclipsed all comers, by winning the half-dozen prizes in *Jonques* and *Bufs* with his hitherto matchless specimens. *Any Variety*.—Mr. Evans took first and second honours with a couple of *Manchester Coppers* of fine breed. These were the best specimens Mr. Evans exhibited, and would not disgrace the cotton city.

The *Mules* were a mixed company, but still there was here and there a telling specimen or two. Mr. Spence, of South Shields, ought to feel proud (no doubt he does), in possessing such a splendid, symmetrical, fine-conditioned, and nicely-marked *Canary* and *Linnet Mule* as that he exhibited. It deserved the first prize that it gained. The second-prize bird was likewise a choice specimen of similar breed to the one defeating it. Mr. Tenniswood was the owner. Mr. Goode exhibited a *Goldfinch* and *Canary Mule*, which was awarded the third prize.

The *British Birds* were not up to the mark, the first prize being withheld, and the second awarded to Mr. Worth's *Owl*; third, Mr. Evans, with a middling *Goldfinch*. In this class a *Robin* appeared lost and in sad spirits, and it would have been a mercy to have set the poor thing at liberty.

The *Selling Class* had a few worthy birds in it. Mr. Evans was first, Mr. Whitaker second, and Messrs. Clarke & Newton third.

Upon the whole there is all praise due to Messrs. Holmes and Allen, and the spirited promoters (the Committee), for their endeavours. But before concluding my report I must mention one more feature, that of a fancier who appeared to satisfy himself in pacing to and fro the show-room, now and then "holding forth" with others, and declaring there must be a "revision of the Judges." Whether he wished to occupy so distinguished a position himself I could not ascertain, or whether he was an exhibitor direct or indirect I am likewise at a loss to know. One word of advice: It would be as well, perhaps better, if the "regulations" in most of the schedules as to specimens being the "bona fide property of exhibitors," were regarded in a more scrupulous degree.—AN EYE-WITNESS.

YORK ORNITHOLOGICAL SOCIETY.—An Exhibition of *Canaries*, *Mules*, and other birds, open to all England, will be held in the Corn Exchange, York, on November 10th and 11th, the same week as *Darlington*, and those who exhibit at York will be able to arrange for their specimens being forwarded on to *Darlington*. The schedule contains twenty-four classes for cage birds. The prizes are 10s. and 5s. Mr. G. J. Barnesby, Derby, will judge.

MANIPULATIONS AT THE CRYSTAL PALACE BEE SHOW.

A YOUNG apiarian asks if "BEATEN BUT NOT DISMAYED," is right in the facts of his statements about driving bees at the Crystal Palace. I reply he is not. In the first place, before driving was commenced the bees had been in position three full days and were quite at home, working merrily. As to being 50 feet above the ground, did your correspondent never hear of a swarm in a high tree? and did he ever hear of parachutes being required by the bees in their visits to *terra firma*? In the second place, there was no general fighting whatever; doubtless a few single combats took place, but not sufficient to attract attention. That a good many bees were killed is quite correct, but it arose solely from being trampled on by eager spectators, the bees which had settled on the cocoa-nut matting with which the floor was covered being entangled by their feet and unable to move with their accustomed alacrity. All who are acquainted with the Palace will remember that the floor boards are separated by a considerable interval from each other; and the managers of the Palace, in their anxiety for the public safety, insisted on covering the floor with the matting in order that the bees should not penetrate beyond the glass partition. The fallen bees were thus most conspicuous, and although on the ground it did not necessarily follow that they were all killed. Many hundreds of bee-keepers who had read of driving, uniting, swarm-making, &c., but never saw anything of the kind done, here received the best of all instruction—actual demonstration, and went away confident in a new-found power, prepared to teach it to their neighbours, and the Committee were thanked in numberless instances specially for this part of the Exhibition. I and the Committee freely admit that many things might have been arranged better, and we thankfully acknowledge the unbounded consideration shown by exhibitors and visitors for all shortcomings in an undertaking that was most onerous, and a great cause of anxiety to none more than—JOHN HUNTER, *Hon. Sec.*

TO REMOVE FRUIT STAINS.—A solution of chloride of soda will remove peach and all fruit or vegetable stains, and is also excellent in removing mildew; but for this it must be applied several times, and exposed to the sun, while fruit can be removed by it instantly. Of course, it can only be used for white

cotton or linen goods. It is perfectly harmless, if well rinsed in clear water immediately after using.—(*Canada Farmer*.)

OUR LETTER BOX.

LIGHT BRAHMA COCK (M. B.).—The sum you paid (£4), should buy you more than a fairly good *Light Brahma* cock. It is the price of a very good one, and should be nearly faultless. At three years old he is not too aged to breed from, and the straw colour of which you complain is often seen as they grow in age. We should not breed from him if we had another. If we had not, we should put him to the perfectly white pullets you mention, and should expect good chickens. You do not state whether the bird was yellow when you purchased him, or whether the colour has appeared since.

WOODHOUSE'S NEST PANS (W. D. P.).—He is living at King's Lynn, Norfolk. Your letter must have been lost or mis-sent.

CHARACTERISTICS OF DARK BRAHMAS (Dark Brahma, Manchester).—The colour of your hens should be a delicately pencilled grey, every feather alike, and the colour free from moss or brown tinge. You will best judge of the requirements of the breed by attending some first-class exhibition and there comparing the winning birds with the others. You may keep *Bantams* running with your full-grown *Brahma* fowls.

RABBITS' EYES CLOSED (G. H. R.).—If your young *Rabbits* smell offensively we should advise you to kill them at once; but if they have merely their eyes closed from weakness, wash them with warm water and grease them with lard. Apply the same treatment to the scab. Foment and anoint frequently.

PRICE OF HONEY (A Constant Reader).—Large chemists readily buy wax at 2s. per pound. A large grocer who has had some of ours for years will give 2s. 3d. rather than let it go elsewhere. Two gentlemen offer 2s. 3d. per pound, by the hundredweight, for manufacturing purposes. Glasgow merchants ask us to quote prices. Everybody of course will buy as cheaply as he can, but we think you may find a market for your wax at higher prices than you now obtain. The 65 lbs. of honey taken from one of your hives is very good and encouraging. Many hives this year have not yet killed their drones. If the bees in your hive do not kill their drones soon, you may suspect that the queen is either lost or useless.

HONEY AT THE CRYSTAL PALACE SHOW (Young Apiarian).—We are unable to state what quantity of honey was exhibited at the Show, and if we were we should have no means of telling what proportion was sold, as about half the exhibits were not priced for sale. The Association received commission on about £80 for honey sold, and some lots are known to have changed hands without being reported at the office. Glasses of honey and small supers sold readily, but the large supers were mostly unsold, the difficulty of transit telling much against the sellers. About 1s. 6d. per pound seemed the ruling price of honey in comb, and a little less for run honey.

METEOROLOGICAL OBSERVATIONS,

CAMDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W.; Altitude 111 feet.

DATE.	9 A.M.				IN THE DAY.					
	Baromet. ter at 32° and Sea Level.	Hygromete- ter.		Direction of Wind.	Temp. of Soil at 1 foot.	Shade Tem- perature.		Radiation Temperature.		Rain.
		Dry.	Wet.			Max.	Min.	In sun.	On grass.	
1874.	Inches.	deg.	deg.		deg.	deg.	deg.	deg.	deg.	In.
Oct.										
We. 7	29.231	56.0	55.0	S.	52.5	53.1	50.3	104.4	48.7	0.355
Th. 8	29.251	48.0	44.3	N.W.	51.9	57.9	38.1	95.1	37.2	—
Fri. 9	29.260	56.2	53.0	S.W.	51.0	59.5	43.3	72.5	39.0	0.031
Sat. 10	29.108	59.0	51.9	S.W.	51.4	62.8	49.8	81.5	38.6	—
Sun. 11	30.172	55.6	54.2	S.W.	52.4	61.3	50.1	64.1	45.2	0.060
Mo. 12	30.24	55.7	53.8	S.W.	53.3	61.1	59.2	83.8	45.8	—
Tu. 13	29.936	54.0	53.2	S.E.	53.5	65.0	49.5	91.6	44.7	—
Means	29.924	53.8	52.2		52.3	61.2	46.0	85.1	42.7	0.416

REMARKS.

- 7th.—Heavy rain till noon; shower in the afternoon; fine night.
 8th.—Fine day throughout; but misty evening.
 9th.—Morning dull; slight showers from noon till 2 p.m.; afternoon showery, with occasional sun-shine.
 10th.—Fine autumnal day, and cloudless night.
 11th.—Misty and rainy morning; rather better in the afternoon; damp misty evening. At 8.50 p.m., though nearly overcast, there was a very vivid flash of light from the bursting of a large meteor, which was seen simultaneously at Cambridge and Brighton. Had the sky been free from cloud it would have been very grand.
 12th.—Foggy early, but afterwards warm and pleasant; the night bright and starlight.
 13th.—Very foggy morning.
 Temperature very nearly the same as last week, but air much damper; in fact nearly saturated on several mornings.—G. J. SYMONS.

COVENT GARDEN MARKET.—OCTOBER 14.

No change. Some good *Salway Peaches* are coming in; other sorts are quite over. A fresh consignment of *St. Michael's Pines* has arrived; and there is also a fair supply of *English-grown fruit*, quite equal to the demand.

FRUIT.

	s.	d.	s.	d.		s.	d.	s.	d.
Apples.....	doz.	0	10	0	Mulberries.....	½ lb.	0	0	0
Apricots.....	doz.	0	0	0	Nectarines.....	doz.	0	0	0
Cherries.....	½ lb.	0	0	0	Oranges.....	½ 100	12	0	21
Chestnuts.....	bushel	0	0	0	Peaches.....	doz.	8	0	15
Currants.....	doz.	0	0	0	Pears, kitchen.....	doz.	2	0	3
Black.....	doz.	0	0	0	Pears, dessert.....	doz.	1	0	3
Pine Apples.....	doz.	0	0	0	Pine Apples.....	½ lb.	2	0	6
Filberts.....	lb.	1	0	6	Plums.....	doz.	3	0	4
Cobs.....	lb.	1	0	6	Quinces.....	doz.	0	0	0
Gooseberries.....	quart	0	0	0	Raspberries.....	½ lb.	0	0	0
Grapes, household.....	lb.	1	6	0	Strawberries.....	½ lb.	0	0	0
Lemons.....	½ 100	8	0	16	Walnuts.....	bushel	10	0	16
Melons.....	each	2	0	6	ditto.....	½ 100	1	0	2

WEEKLY CALENDAR.

Day of Month	Day of Week.	OCTOBER 22—23, 1874.	Average Temperature near London.			Rain in 43 years.	Sun Rises	Sun Sets.	Moon Rises.	Moon Sets.	Moon's Age.	Clock after Sun.	Day of Year.				
			Day.	Night.	Mean.	Days.	m. h.	m. h.	m. h.	m. h.	Days	m. a.					
22	TH	Robert Fish died, 1873.	58.9	42.4	50.6	23	58	46	51	44	11 2	15 26	295				
23	F		58.2	39.8	49.0	23	40	49	4	18	40 3	13 15	35	296			
24	S		56.3	39.6	47.9	20	41	6	47	4	51	4	10 5	14 15	43	297	
25	SUN	21 SUNDAY AFTER TRINITY. Twilight ends [6.40 P.M.	55.9	38.5	47.2	21	43	6	45	4	48	4	43	6	0	15 50	298
26	M		55.6	36.5	46.1	18	45	6	43	4	9	5	19	8	16	15 56	299
27	TU	J. Strutt born, 1742.	55.1	38.4	46.7	27	47	6	41	4	39	5	54	9	17	16 2	300
28	W	Alphonse De Candolle born, 1806.	54.5	35.9	45.2	27	49	6	39	4	21	6	22 11	18	16 7	301	

From observations taken near London during forty-three years, the average day temperature of the week is 56.3°; and its night temperature 53.7°. The greatest heat was 69°, on the 22nd, 1833; and the lowest cold 17°, on the 23rd, 1859. The greatest fall of rain was 1.03 inch.

AURICULA GROWERS IN THE NORTH.



It is a pleasing sign of the times that the taste for the fine old florists' flowers is reviving, and that these plants are being looked after much more than they used to be a few years ago. Auriculas are perhaps the most difficult to manage of all the flowers that were the favourites of our forefathers, and which, through their enthusiasm, have been brought to such a high standard of perfection. Young cultivators in this fast age will probably not have the large amount of patience requisite to raise first-class seedling Auriculas, and the old seedling-raisers are rapidly disappearing from amongst us. Mr. Robert Trail, of Aberlady, died some years ago, more recently Mr. G. Lightbody; and another grower, who has raised some good flowers—Mr. Kay—is also amongst the names of departed worthies. Mr. Peter Campbell, of Falkirk, has some seedlings which have not yet flowered, and others which he thinks good, but he will probably not sow any more seed.

At present Mr. Meiklejohn, Raploch, Stirling, has not only the largest, but most healthy collection in Scotland; he has about 1600 plants in all the best varieties, and the splendid condition in which he has his plants shows the care and skill bestowed upon them. They are grown in span-roofed and lean-to frames. The glass lights are placed at an angle of 45°. The span-roofed structures are 9 feet wide, and contain twenty rows of plants, which stand on a stage fixed at such a distance from the glass as will allow the trusses of flowers to be thrown up without coming in contact with it. One serious fault in the cultivation of the Auricula is that of keeping the glass lights too close; such treatment causes the plants to become weakly and susceptible to the attacks of green fly. Mr. Meiklejohn's frames are raised above the ground, so that the air plays freely both under and over the plants. If green fly should attack them, which is seldom the case, he destroys it with tobacco powder. As to the potting material, the nostrums of the old florists are utterly eschewed. We were pretty well agreed on this point, as well as with regard to the size of the pots. Pots from 4 to 6 inches in diameter are sufficiently large for all purposes, using the largest size in exceptional cases only. Loam and rotted cow manure are all that Mr. Meiklejohn uses in the way of compost; employing the manure in larger or smaller quantities according to the variety.

In such a large collection as that grown by Mr. Meiklejohn it is very interesting to note the special characteristics of the different varieties. Some of them grow freely and are always healthy in appearance, others are "dorty," seldom or never to be seen in good health. For instance, of that fine variety Marie (Chapman), which is grown here in quantity, I noticed only one plant that had not a sickly appearance, the pale green leaves being in each instance streaked and slightly blotched with yellow. Sophia, by the same raiser, is equally peculiar.

No. 708.—VOL. XXVII., NEW SERIES.

The following varieties are amongst the best of those grown at Raploch:—

Green-edged.—Alexander (Stretch) has been grown here for about six years, and no stock has as yet been obtained. A nurseryman would, of course, cut the plants over, and thus obtain numerous breaks; but without such assistance the result has been nil. Champion (Page) is a very slow grower, and except the large stock of it in the hands of the Rev. F. D. Horner, there are few other plants of it in Britain. Duke of Cambridge is generally a green edge with Mr. Meiklejohn, though Mr. Turner classes it in the greys. As a green it is a very pleasing flower. Prince of Wales (Aston) is good and pure. Colonel Taylor (Leigh) is fine, but the growers here do not speak in its favour. The flowers are small, and the petals pointed. Admiral Napier and Lord Palmerston were raised by Mr. Campbell from the same batch of seedlings; the first-named is a very free-growing good variety.

In *grey-edgeds* one of the very best is that raised in this neighbourhood by Mr. Kay, and named in honour of Mr. Meiklejohn. The flower which I saw of it in the summer was better than my own pips of George Lightbody. Col. Champneys (Turner), very fine and very free in growth; Conqueror of Europe (Waterhouse), Complete (Sykes), Lancashire Hero (Cheetham), Mary Ann (Fletcher), Matilda (Dickson), Marie (Chapman), Ne Plus Ultra (Fletcher), Richard Headly (Lightbody), Robert Trail (Lightbody), Splendour (Headly), Unique (Dickson), and Unique (McLean). A new one of Mr. Campbell's named Confidence is much thought of by Mr. Meiklejohn.

White-edged.—Catherina (Summercales), Earl Grosvenor (Lee), Fair Maid (Lightbody), John Waterson (Cunningham) is classed by the Scotch growers amongst the greys, whereas Mr. C. Turner in his list has it in the white-edged class; Ne Plus Ultra (Smith); Incomparable (McDonald); Glory (Taylor); Smiling Beauty (Heap) is said to be the best white edge; Sophie Dumaresque is new and very fine, with a very large truss. It is said to be one of Mr. Chapman's flowers, though it was sent out by Mr. Lightbody. White Rival (Trail) is a good flower.

A few of the very best *selfs* are Blackbird (Spalding), Eliza (Sims), Formosa (Smith), Lord Clyde (Lightbody), Master Hole (Turner), Petronella (Headly), Metropolitan (Spalding). This is said to be a scarce flower now; it is certainly very fine. Mrs. Sturrock (Marlin), Vulcan (Sims), Topsy (Kay), Pizarro (Campbell). The two new ones sent out this year by Mr. Turner are very fine—viz., C. J. Perry and Cantab.

I also visited Mr. Campbell at Falkirk. He has disposed of the greater portion of his stock, but still retains a few of the best varieties, and he has yet a goodly number of seedlings to prove. He has quite recently raised and let out two very fine crimson *selfs*—viz., Duke of Argyll and Lord Lorne, and he is yet working in the same direction. The two named have mealy foliage, and he is desirous of raising crimson *selfs* with green foliage. Lord Lorne was raised from Mrs. Sturrock, the pollen parent being Berry's Lord Lee; and he has now crossed Lord Lorne with a green-edged seedling having plain

No. 1562.—VOL. LII., OLD SERIES.

foliage, and the result is a crimson self with plain foliage. He will cross this, probably, for four or five generations before he has a flower of first-class quality.

Mr. Jeffery, a bookseller at Falkirk, has now a very large collection of the best named sorts, and, what is more, he grows his plants well, and has also taken to the raising of seedling varieties.

It will be seen from the above remarks that Stirling, which in the days of yore was the "bulwark of the north," is still the stronghold of the Auricula. In olden times kindly men lived at Stirling, and the race still remains in the persons of the old florists. The most pleasant days I spent in Scotland this year were with the florists at Stirling and Falkirk.—J. DOUGLAS.

NOVELTIES IN THE ROYAL GARDENS, KEW.

In the Stove are a few plants of *Reidia glaucescens*, an interesting and beautiful plant of unusual habit. The stem is erect and stout, bearing what at first seem to be pinnate leaves; they are, however, horizontal branches of definite growth, produced with such regularity as to favour deception; the apparent leaflets are entire leaves. In the axils of these are borne the flowers; and though small, they are produced in such numbers that there can scarcely be anything more pretty or graceful. Each one hangs by a slender hair-like stalk; they are red in colour, and have a nicely-fringed margin. It is a native of Java. Cuttings can be rooted at any season under a bell-glass. For potting, a mixture of peat and loam with a sprinkle of sand is quite suitable. Large pots are not necessary; very pretty specimens can be grown in 48's. It is fortunately not liable to be infected by insects. It has been distributed from Kew for several years, but is not very generally known. From the late demand it appears to be rising in favour. At night the leaves fold to sleep face to face like the leaflets of many Leguminosæ. *Begonia geranioides* is a very choice and distinct species of small growth. The petioles are red, supporting green blades that but slightly show the obliquity characteristic of the genus. The flowers are pure white and very numerous, on several pale green stalks well above the foliage. It has a tuberous rootstock, but is not quite so hardy as the majority of that description. A native of Port Natal, whence it was introduced by Messrs. Backhouse, and was figured in the "Botanical Magazine" for 1866.

The new *Cypripedium Roezlii* is now in flower in the Orchid collection. It does not differ widely from *C. longifolium*. A good variety of *Oncidium crispum* is just opening, in the same condition as *O. excavatum*. There is nothing prettier than a small pan of *Pleione Wallichii* with about sixteen of its rose-coloured flowers fully expanded. Among others worth attention are *Odontoglossum Uro-Skineri*, *Rodriguezia secunda*, *Mesospinidium vulcanicum*, the curious *Gongora galeata*, *Brasavola cordata*, and *Masdevallia Veitchii*. Besides these, numerous pots of *Calanthe vestita*, with *C. Veitchii*, render the house gay and attractive.

A large plant of *Coprosma lucida* planted in one of the beds in the Temperate house is now very ornamental from its clusters of orange-red berries. They are individually about twice the size of those of *Nertera*. The tree is of good habit, with dark shining oval leaves. It will not, perhaps, fruit in a young state. *C. Baueriana variegata* covered with berries in this way would be very pretty. Cuttings strike as freely as do those of that variety, which, we may remark, should be widely used for beds in summer out of doors.

CURLED PARSLEY

Is one of the most useful garnishing herbs or vegetables that we grow in the kitchen garden, when grown to perfection. I generally put in my first sowing about the middle of March, digging in some rich manure; when finished, put on the ground a mixture of soot and burned wood ashes, which I rake in, sow in a drill, and then cover with some old dry soil from the potting bench. I grow it along the edges of the Gooseberry borders, and it looks well throughout the winter and spring months. The second sowing I put in about the beginning of August on a south border, and the Parsley comes in very useful in the early part of the spring, and keeps me supplied through the summer, until the spring-sown comes in for use. I always cut the plants down twice during the season—May and July, and sow a little soot between the rows, which promotes growth very much, at the same time gives the leaves a fine green colour. In September or October a plantation may be made

from the August sowing in a frame or on a warm sheltered spot, where the plants will be likely to survive the winter. It is seldom that the winter affects it in this locality in the open ground. The varieties I grow are Myatt's Garnishing and Champion Moss Curled.—W. McPHERSON, *Snelston Hall Gardens, Ashbourne.*

FINE OLD TREES AT MOOR PARK, HERTFORDSHIRE.

FINE old trees have of late years been held so much in esteem, not by the mere lovers of nature only, but by the public at large, that even the owners hesitate before sacrificing them, lest the public should censure the act; besides which, the proprietors feel not a little proud of their possession, and instead of the reckless cutting-down of timber which took place in olden times, in many instances great reluctance is felt to thin them sufficiently for the welfare of those intended to stand. This undoubtedly is the better of the two extremes; and added to that are the laudable efforts made by many landowners to increase their extent of woodland; and every encouragement should be given to their doing so, as so many influences are at work elsewhere to diminish the quantity. Having, however, the subject of a well-clothed district in contradistinction to one denuded of trees for consideration hereafter in respect to their respective influences on rainfall and other features of meteorology, I will at once turn to that of fine old trees. It is at all times a pleasure to see a number of such trees, especially when we take into consideration the great temptations there have been at various times to cut them down for their commercial value. The great demand for ship-building timber at the end of the last and for some years of the beginning of the present century, induced many proprietors to cut down what otherwise might have been an ornament to their estate; but it is not likely the same demand will occur again, the many countries from which our timber supply is drawn, not to speak of the many purposes for which iron has now substituted timber, almost rendering the national song "Hearts of Oak" a thing of the past. All tends to help to preserve to us what remains of the fine trees of our ancestors; and where fine ones really do exist, and the owners of such are liberal enough to allow the general public under proper restrictions the privilege of inspecting such trees, I hardly know of any greater treat that can be accorded. All honour, therefore, to those who possess such riches and share them at the same time with their neighbours. I am pleased to observe that this privilege is fast gaining ground, and that the parks of many of our nobility are thus made accessible to all such as by their actions desire to be admitted; and what public or private feast presents a more true picture of a health-giving meal than is often seen partaken of by a party holding a picnic under an aged tree? The very site, its associations, not to say the purity of the air breathed by all, give it a charm which is wanting in the splendour of the formal dinner party. And how often do we see such a sight under some fine old trees in some gentleman's park! and, what is equally pleasing, how seldom do we hear of a privilege thus gracefully granted being abused! Let me hope the cases of the latter kind will get fewer and fewer. Those liberal-hearted noblemen and gentlemen who thus so kindly allow their fine trees to be thus inspected are certainly entitled to all praise at our hands, for are not old trees exempt from the suspicions that now and then cling to objects said to be old, as ironwork or chinaware, or even pictures? for old trees are not to be manufactured. Their hoary appearance is genuine. No "getting-up" is necessary on their part; they are perfect in themselves, and any tampering with them would only end in the discomfiture of the meddler.

Of the fine old Oak trees which ornament so many of the parks of our nobility, and at the same time form objects of historical interest, there are many examples in the kingdom; and perhaps those in the county of Hertfordshire are as important as any, and amongst those of the latter kind the fine trees in the park of Lord Ebury at Moor Park on the south-western edge of the county are especially deserving of notice. An outline of this fine place is given in the volume for 1871; and in noticing the history of the place a mournful interest is elicited by the fact of its having once been in possession of the unfortunate Duke of Monmouth, natural son of Charles II., who was attainted and executed by the successor of that monarch, when, it is said, the unfortunate duchess determined that the trees in the park should not be made available for the

royal navy, had them all beheaded. So says tradition, which, as is well known, is very often a good exponent of history. And some of the oldest trees in the park at the present day certainly bear traces of having been subjected to something of the kind years ago, and probably many more whose growth has since removed all traces of such an operation. But when we consider the long period that has elapsed since Monmouth's ill-starred rebellion there has been time for another generation of fine trees, of which there is no lack at the present day. It would seem that Moor Park, notwithstanding its vicissitudes, has been singularly lucky in the preservation of its fine old trees, and, what is equally important, the judicious planting of young ones; for in looking over it one finds trees of all ages, from the aged skeleton with scarcely a vestige of life upon it—(some one or two, in fact, are still preserved after ceasing to live)—to the young tree planted during the last ten years, with all intermediate ages between. The soil has perhaps had something to do with their longevity—a gravelly soil more or less mingled with chalk, although the latter is not just at the surface. A considerable diversity in the surface has also, no doubt, been beneficial, for we certainly always meet with the finest trees on hillsides rather than on plains; and the whole lies dry.

The park, though undulating more than the bulk of the surrounding district, has none of those wet valleys one meets with sometimes, the whole being dry, excepting that a small portion to the left of the entrance by the village of Rickmansworth, which lies close to the side of the principal river in the neighbourhood, is of course much moister, and one or two trees special to it will be noticed. I may here observe that Lord Ebury with considerate liberality allows picnic parties who have obtained leave to be held in the outside enclosure, which is kept much in the character of pleasure ground. The river forms its boundary on one side, and the high road the other; and immediately on entering, a ribbon border at the opposite side confronts you, which being backed by shrubs consists of partly hardy and partly half-hardy plants, and at the time I saw it looked well, the predominance of light-coloured flowers being well set off by the greenery by which they were surrounded. To those who are fond of having the contents of ribbon borders detailed, I may say the planting was as follows:—Commencing at back with the evergreen shrubs as a background—viz., back row *Helianthus multiflorus*, double yellow; next row African Marigold; next row Geranium, a tall scarlet; next row Verbena, a pale blue tall variety; next row French Marigold, striped; next row Geranium, pale-coloured variety; next row Lobelia, blue. The whole was edged with turf, on which at another place there were also some other beds of flowering plants, with now and then a fine tree. Notably so was a good Weymouth Pine, and a still more remarkable fine Tulip Tree, which must be 80 feet high, with a more upright growth than this tree usually has. Its bole at the height of 10 feet was divided into two leaders, each of which were upright-grown, and gave the whole more the habit of a Poplar than a Tulip Tree.

Entering the park we see an abundance of very fine Oak trees, with also some of other kinds, and near to the carriage road we find a fence has been put round two, one of which is dead. These relics of a bygone day, to which I believe some historic legend is attached, as being of the time of the unfortunate Duchess of Monmouth's period—these venerable remains of a time very different from our own are not so large as many others are; but as all trees alike do not attain the same size, we need only say that they would be esteemed very large everywhere, excepting in a place like this, abounding with large trees. One of these has a portion of one of its sides alive. This pair stands about 24 feet apart, and from the appearance would seem to be very ancient. Another Oak near the last-named has some appearance of having lost its top, or in other words of having been beheaded at 7 or 8 feet from the ground, yet is still quite healthy, and its bole measures 17 feet in circumference at the smallest part between the root-claws and breakings of its branches, and that too at a place where it seems to be sound. Another Oak, not far from the above, is 20 feet in circumference at the waist. This is also healthy, and like the former would imply a belief that it had been one of the beheaded ones. Another Oak is 19 feet in circumference, but is less healthy and sound-looking than the other; this also has the appearance of having been beheaded. Another same size of last, but more healthy—in fact sound, and does not appear to have undergone the ordeal the others have. Another Oak, a little way from the last, is 24 feet in circumference at

about 5 feet up, and the top healthy and fine. This is a most remarkable tree. As the measurements are all taken at the smallest parts within reach, it will be easily seen that larger dimensions could easily have been given. Another Oak a little way from the carriage road measures 31 feet in circumference at 2 feet up, but it is only fair to say there were a number of excrescences on the bole, which gives greater dimensions than ought to be the case, but it was a remarkably fine tree, for it would seem to be quite 16 or 18 feet in circumference at the height of 20 feet or more, and this without any of the swellings alluded to; its top healthy. Another tree near the last nearly as large. Besides the above we noticed a Sweet Chestnut with a fine straight bole, the bark of which had the common spiral twist or ribbing. This fine tree was 18 feet 6 inches in circumference at 5 feet up, where the bole was clear of all protuberance, and it must have been of large dimensions at 30 feet up. It was a remarkably fine tree, and certainly one of the best I have ever met with of its kind for timber purposes.

The above trees are all in the park, but there are some fine trees in the pleasure grounds also, notably so in that part of the pleasure grounds detached from the mansion called the Old Pleasure Grounds, an isolated portion of some 25 acres or more, which, amongst other riches old and modern, contains a most remarkable Spruce Fir tree, which at one time seems to have lost its leader near the ground, and instead of succumbing to the disaster, to have cut out for itself a new feature altogether, and formed a number of distinct leaders, now like large trees, which issue at various places around the original stock, and have every one the uniformity of seedling trees. The circumference of the largest at about 3 feet from the ground I found to be nearly 14 feet, an unusual size for a Spruce Fir; besides which it was evident its branches had at times laid themselves on the ground and rooted there, pushed up a fresh tree at their points, their connection with the parent tree still remaining a proof of their being part of it. I may add that the whole seemed healthy and likely to live many years, differing widely in this respect from what we see of Spruce Firs in many places, where they are liable to die at the age of thirty or forty years, or even less. Here we have a specimen with all the stamp and vitality about it of some of our deciduous trees, a marvel in its way. At some little distance from this was a fine plant of a lately-introduced Spruce which we seldom meet with in good condition, which I merely mention here to show that the soil suits such things. An *Abies Kämpferii* was upwards of 8 feet high and as much through, having lost its leader, or it might possibly have been 3 or 4 feet higher. Now when we consider that there are many places where this Conifer refuses to grow at all, even where other choice ones make rapid progress, we are led to think there are peculiarities in certain soils suited to certain plants, and notably so to this.

We must not omit noticing another fine Oak, which, although appearing to be perfectly sound and healthy, was 26 feet in circumference at the waist, and likely to live many years. Another near to it was about the same in dimensions, but was not so sound, although still healthy.

It might, perhaps, not be out of place here to mention that a fine terrace wall bounds the pleasure ground adjoining the mansion of something like 600 feet long, with thirty vases on the parapet wall, all filled with scarlet Geraniums. The walk by the side of this noble wall is 20 feet wide, and likewise perfectly straight; but as these features were all described in a former article they need not be repeated, neither is it necessary to repeat what was said on the kitchen garden, but in a hasty look over the latter a fine bright-looking Nectarine was pointed out to me by Mr. Cunningham, the very intelligent gardener, as being very good and deserving of more general adoption. It was the Pine Apple Nectarine, a handsome full-sized fruit, of the class coming in at midseason, and certainly a showy one for table.—J. ROBSON.

STRAWBERRIES.

I HAVE not seen Garibaldi mentioned in the lists. The following description of it may be of use to some of your readers:—It is of close compact habit, with a good constitution, is a free bearer, and in colour not inferior to Keens' Seedling. In this county (Durham) it is a general favourite; besides, it is an excellent forcer, and I depend on it principally for my supply. The fruit is of medium size and stands well above the foliage, a great recommendation in a wet season, and it comes into fruit from the plants that have been forced.

By attending to them during the summer months it can be brought into bearing at the end of September.—W. WRATHER, Gardener to Edward Pease, Esq., Darlington.

NOOKS OF SUSSEX.—No. 2.

My last note related to Yapton, and in a summer long since passed I had thence journeyed to near Goring, and inquired my road for a nook still further to the eastward. An old man directed me, but he added as a warning, "Rain's anewst [near]—old Mother Goring got her cap on." In other words, Chanctonbury Ring, a hill belonging to the Goring family, had a grey cloud covering its summit. Whether the prognostic was fulfilled I remember not, but I do remember that there and in the nook to which I was journeying linger many old sayings which I delight to hear and record. One of them says, "The old woman takes the cuckoo in her basket to Heathfield Fair, and there lets him out." That Fair occurs on the 14th of April, and the cuckoo is so usually first heard about that day that the Fair is called "Cuckoo Fair;" but who the old woman is I know not. Another bit of folk-lore learned as I journeyed on is that the Houseleek is cherished by cottagers on the thatched roofs of their cottages, because they believe it protects them from lightning.

Many times since that journey have I been in nooks neighbouring Heathfield. On an adjacent hill a modern mansion is erecting, from a turret of which a perfect panorama of the country round within a circuit of twelve miles is seen. Good taste is apparent in some portions of the garden, and it will appear in other portions as planting time progresses, for all is a new creation. I have been there more than once recently, for there are good wines in the cellar, and the housekeeper compounds superlative chicken pies. That is a mere parenthesis, for having mentioned the gardening I intended at once to proceed to some of the nooks of the garden, and of these I shall notice none but those devoted to Primulas. The first bed noticed was 45 feet in length and 3 feet in breadth, and on it were forty rows of Polyantheses, and six plants in each row. They were seedlings, and the labels by them recorded the colour of their flowers and their parentage.

Thence I walked to a border 140 feet long and 6 feet broad. In it were 119 rows, each row being filled by eleven plants. Each plant was named and noted as to colour and size. I will only mention one, called Purity, having white flowers, which it persistently produces during the winter. Two others, probably not in the same border, I mention because the raiser seems to have applied the names waggishly. One he has called Magenta on account of its flowers' colour, and the other Solfereno, its flowers being pale magenta. The Magenta is a winter-flowering variety.

Besides the bed and border I have mentioned there were Primula edgings; another bed, 60 feet long by 20 broad, containing more than eight hundred Polyantheses, and a border of nearly six hundred seedlings unproved.

Need I add that the proprietor of the mansion and garden is "PHILANTHOS," whose little book on "Primroses, Cowslips, Polyantheses, and Oxslips," is published at the Journal office?

I observed in my previous notes upon the fondness for gardening in some of the Sussex nooks, but I should have included orcharding. No nooks of any other county contain more old fruit trees, and varieties are met with that are quite local and unmentioned in books, though excellent. Where else can be found the Wheat Plum? and where is its superior for culinary use or for making a brilliant jelly-like preserve? Here I met with the Pruin Plum, a name quite local, but the fruit seems identical with the Mussel Plum of other counties. Of Apples the Woodcock, Hawkridge, and Duckebill seem to be confined to Sussex and the borders of its adjoining counties.

In these nooks are to be recognised dog-irons and fireplace-backs, used when fires were kindled on the hearth, and manufactured two centuries since, when iron-smelting was an extensive operation in Sussex. That smelting is now sought to be revived, and very probably with success. Railways have rendered the conveyance of coals, ore, and manufactured iron cheap compared to what it cost when the manufacture had to be abandoned. There seems no reason why it should not be remunerative here as it is in mid-Northamptonshire, for in Sussex, as there, the ore is part of the subsoil. If in addition the boring now in operation reveals a seam of coal, the advantage will be still more decisively in favour of Sussex; and the time may be near when, history repeating itself, I may have a modern record like that old one now before me, giving "an

account of the whole process of the iron work, from one of the chief iron masters in Sussex, Walter Burrell of Cuckfield, Esq."

In other nooks are the birthplaces of some of our oldest writers on gardening, but these I may be permitted to notice in other communications.—G.

THE FLOWER BEDS AT THE CRYSTAL PALACE.—No. 2.

TURNING now to the beds themselves, I found that the long Rose borders which originally stretched in an unbroken line from each intersecting walk along the outside of the upper walk on the rosery mound, had been broken up into a series of parallelograms of Roses alternating with circular flower beds, in which the enamel bedding was in fullest beauty. Elevated, as these beds are, very near the top of the steep sloping sides of the huge mound, with the beds of Roses acting as foils between every two circles, and with a bold sweep of turf downwards from them, they form very conspicuous objects, which certainly have that full share of general admiration which they so richly merit. Skirting the base of the mound, on the turf inside the lower encircling walk, there is another chain of beds, all of circular form, and planted in the old free style with Geraniums, &c.; all well filled and in excellent condition, but affording a striking contrast to the dwarf growth and bright unbroken beauty of the upper series of beds, compared with which they were extremely tame and insipid; and it was an instructive lesson to watch the hasty passing glance

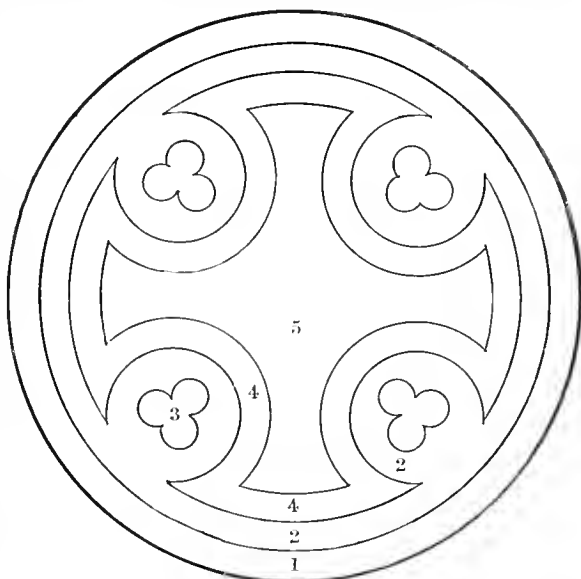


Fig. 104.

- | | |
|--------------------------------------|----------------------------------|
| 1, <i>Sempervivum californicum</i> . | 4, Golden Feather Pyrethrum. |
| 2, <i>Lobelia speciosa</i> . | 5, <i>Colons Verschaffelti</i> . |
| 3, <i>Alternanthera amona</i> . | |

bestowed on them by those who soon afterwards found themselves involuntarily pausing to admire the irresistible beauty and to study the designs of the enamelled beds. Let us join them, and see what else there may be to learn to enable us to apply the lesson in our own practice next season; and in doing this it will be best slightly to recapitulate.

Most of the beds have an edging of *Sempervivum californicum*, and where a brighter-coloured edging was necessary Golden Feather Pyrethrum was its substitute. *Colons Verschaffelti* is still a favourite for producing a deep rich central mass, and it was present in several beds in the form of bold central stars and other forms. A Maltese cross of it margined with Golden Pyrethrum, with deep blue, carmine, and the pretty maculated rosettes of *Sempervivum californicum* outside, as in fig. 104, was very fine. Now this bed, from the very simplicity of its design, offered a striking and not unpleasant contrast to the more complicated forms. "Grand simplicity" is no doubt a somewhat hackneyed term, but it is none the less expressive of truth and beauty. Another important matter in connection with this bed is the materials. Of the

five kinds of plants used the *Sempervivum* is hardy, and the *Lobelia* and *Pyrethrum* are raised from seed in spring, so that only the *Coleus* and *Alternanthera* would require protection in winter, and of these a few plants afford a considerable stock of cuttings in spring.

Taking another circle (fig. 105), as an example of how

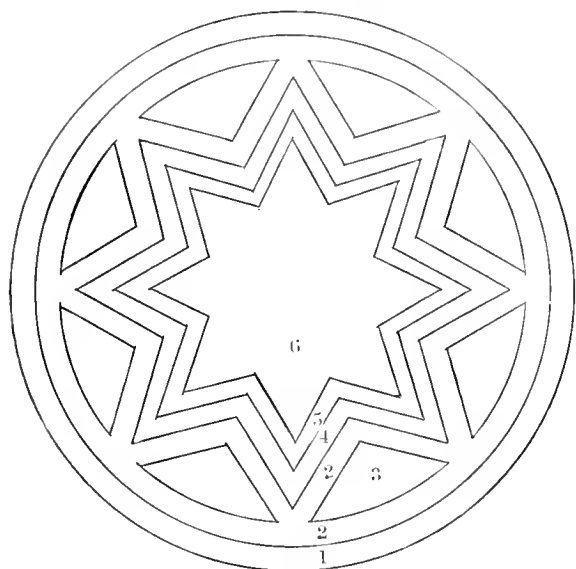


Fig. 105.

- | | |
|--------------------------------------|--------------------------------------|
| 1, <i>Sempervivum californicum</i> . | 4, <i>Tagetes signata</i> purpurea. |
| 2, <i>Alternanthera magnifica</i> . | 5, Golden Feather <i>Pyrethrum</i> . |
| 3, <i>Echeveria secunda</i> glauca. | 6, <i>Coleus Verschaffelti</i> . |

Tagetes is used, we have a central star with eight points, containing a grand dark mass of *Coleus* with a margin of Golden *Pyrethrum*, *Tagetes* being most effective between the lovely yellow *Pyrethrum* and the rich orange *Alternanthera*. The patches of silvery *Echeveria* also told well, exercising very considerable influence upon the general effect, which was excellent. When grey-leaved plants are scarce or variety is necessary,

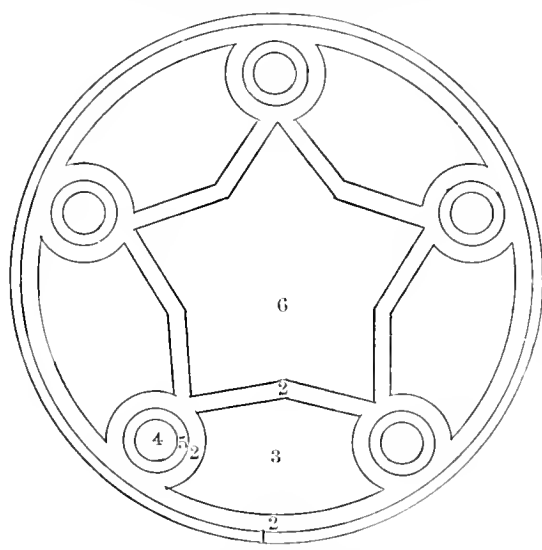


Fig. 106.

- | | |
|--------------------------------------|-------------------------------------|
| 1, <i>Sempervivum californicum</i> . | 4, <i>Echeveria secunda</i> glauca. |
| 2, Golden Feather <i>Pyrethrum</i> . | 5, <i>Lobelia speciosa</i> . |
| 3, <i>Alternanthera versicolor</i> . | 6, <i>Coleus Verschaffelti</i> . |

Echeveria secunda glauca forms an excellent substitute, producing a somewhat similar effect in colour, and yet being totally different in its general appearance. It is used in figs. 105 and 106 in a very similar manner; but this last design is given as

an example of how two shades of rich crimson may be introduced in the same bed with perfect safety by the use of other suitable bright dividing colours. The effect of this bed was extremely rich, and not at all heavy.—EDWARD LUCKHURST.

A DAY WITH THE FUNGUS-HUNTERS.

ANOTHER Fungus feast, and no casualties! Once more have the mycologists, indigenous and other, hunted and harried the woods, fir groves, and pastures of Herefordshire, in pursuit of game which squires do not care to preserve, and to which farmers do not raise the faintest objection. Once more have they returned towards dusk to the "faithful city," bearing bags and baskets filled with spoil destined to give variety to more than one cuisine. So far has the adoption of the study of mycology, as a special feature of the Woolhope Field Club transactions, tended in six years to "Italianise" the tastes of diners-out in the matter of Fungi, that we believe the excellence of a "*Lycoperdon*" fritter might be avouched by the highest ecclesiastical dignitaries; and, unless our eyes deceived us, the High Sheriff of the county of Hereford could certify the goodness of "*Comatus*" soup. It is not, of course, contended that among the results of the forays which made the woods of Downton, Stoke Edith, Dinmore, and Garnstone, all alive in the first week of October, there were not a number of diverse Toadstools, wholly unfit for human food; but a residuum of edible Fungi was tried, tested, and not found fault with by the guests at the public dinner on the 1st of the month, who, though disappointed of the presence of the Rev. M. Berkeley, the chief of English mycologists, included in their number those scarcely less eminent authorities, Messrs. Broome, Rennie, and Houghton, to say nothing of that skilful delineator and describer of Fungus-growths, Mr. Worthington Smith, F.L.S. The proceedings of the evening included a merited recognition of the assistance rendered to the Club by this gentleman, whose two sheets distinguishing edible from poisonous Fungi, with the key appertaining to them (published by Hardwicke), are still the most useful guide to the amateur Fungus-hunter, though for more advanced inquirers the manuals of Berkeley and Cook, and, for the more classically minded, the charming volume of Dr. Badham, are, doubtless, more suitable. The delicately-served *Marasmius oreades*, or "Fairy Ring Champignon," enabled the veteran Mr. Lees to return for the hundredth time to his "molar" theory as to fairy rings; the Orange-milked Mushroom (*Lactarius deliciosus*) justified its title, after skilful cooking and a good deal of salting and peppering; and if on this occasion we failed to experiment upon the Scaly Agaric (*Procerus*), the Beefsteak that is cut to order from half way up the Oak (*Fistulina hepatica*), or the Boletus edulis (not that in favour with the elder Roman gourmands, though very popular with their remote posterity), or even the Giant Puff-ball (*Lycoperdon giganteum*), it is simply because, in the case of Fungus-tasting as in everything else, *non omnia possunt omnibus*. The *Lactarius deliciosus* ought to be good, to judge from its name; and its beauty of colouring and deep orange milk so completely distinguish it from the dangerous *L. torminosus*, the deadly and ruddy *L. rufus*, the fragrant and rare *L. glycosmus*, *L. controversus* (a species not uncommonly found under the Black Poplar, but on this occasion discovered by Dr. McCullough under a Lombardy Poplar at Garnstone), and the *L. Vitellinus*, which, notwithstanding its epithet, is not good for food, that there need not be the slightest hesitation in tasting it, even raw. Dr. Badham's plan of baking the *Deliciosus*, after due application of salt, pepper, and butter, for three-quarters of an hour in a covered pie-dish, is doubtless a preferable mode of experimenting on this delicacy. Our own experience of it is not so fortunate as to enable us to rank it with the most appetising of culinary Fungi, nor can we mention it in the same day with the slices of the Giant Puff-ball, when, after the removal of their outer integument, they are dipped in yolk of egg, and then fried in fresh butter. In all such experiments it is obviously unfair to try other than quite fresh and young specimens, and there ought to be no necessity for cautioning even the uninitiated against cooking the Puff-ball when it is yellow and rotten inside, or, indeed, when its snow-white exterior is beginning to change to a suspicious yellow. Several of the rarer *Lactarii* mentioned above were either found in this year's forays at Hereford, or were brought thither to adorn the sideboard at the festival.

A word must be added about the "*Comatus*" soup. What boy or girl accustomed to roam over field and pasture does not know the quaint cylindrical "tall John," with a fleshy and

patchy white wig, and a hollow stem with a white powdery fragile ring encircling it, known to mycologists as the "*Coprinus comatus*," and sometimes as the "*Agaric of civilisation*;" but hardly less familiar to hundreds who cannot put a name to it, and who come across it and its grey-capped cousin *C. atramentarius*, in the open garden or at the base of stumps or palings? This Fungus has long been mixed with others in the composition of ketchup, and *Atramentaria* is said to make very good ink. It has been reserved for the Woolhope Club to demonstrate its value as the principal ingredient in a piquant and tasty soup, to outward appearance resembling Green Pea soup, or, perhaps, more closely Parsley and butter in a tureen. Whatever its semblance, it is too good an addition to our list of soups to be lightly forgotten; and, perhaps, the day will yet come when those philosophers whose mental grasp can embrace nothing higher than the addition of another and another novelty to their gastronomic pleasures, may learn to count amongst their benefactors the motley group of mycologists whom an inscribed festoon in one of the streets at the recent opening of the Free Library at Hereford, designates irreverently and illiterately as the "*Fungi Fogiee*." After all, however, even putting the question of edibility aside, it is not difficult to find good reasons for prosecuting the study of mycology. Medicinally and industrially many Fungi have their special purpose, as for instance the scaly *Polyporus*, which, dried and cut into strips, supplies a capital razor strop, and the other species of the same group which are manufactured into the styptic known as *Amadeu* or *Germanu* Tinder. The medicinal substance known as *ergot* of rye has also, it need hardly be said, a fungoid origin. Generally, too, to quote the highest English authority on the subject, "the office of Fungi in the organised world is to check exuberant growth, to facilitate decomposition, to regulate the balance of the component parts of the atmosphere, to promote fertility, and to nourish myriads of the smaller members of the animal kingdom." Regarded in this practical light, the numerous family of *Fungus* asserts a strong title to intelligent study, and cannot lightly be overlooked by any Field Club that deserves its name. An attempt to catalogue the Fungi which line the woodland path, or have their habitation at the foot or amid the branches of the Oak, Ash, Elm, the Larch, and Fir, the Birch and the Poplar, would very soon more than exhaust our paper. Amidst the things of beauty—though certainly not of joy to the incautious taster—in *Fungus* life may be cited the *Boletus luridus*, amber-coloured above, and bright red or even vermilion below, and suspiciously changing, when broken or bruised, to a blue complexion. Or, again, the Fly *Agaric* (*Agaricus Amanita muscarius*), with its bright scarlet cap, worked, so to speak, with yellow or yellowish spots, and underlaid with a bright yellow flesh, which is succeeded, lower still, by a pervading white. Its stem is bulbous and marked by a distinctive ring. The *Peziza aurantia* is another perfectly lovely tenant of the woods and heaths, a delicate crisping "lamina" of the brightest orange, which no one will forget who saw the other day a specimen of it measuring 8½ inches across, sent from Shobden Court by Lord Bateman. Amongst the *Russulias*, found freely this year as usual in Herefordshire, there is as great a variety of hue as of wholesomeness, from the pale pink and faint rose to the brilliant scarlet of *R. emetica*. *Cortinarius cinnabarinus* is a clustering group, of a bright orange or nearly vermilion, with a metallic lustre. The *Cinnamon Mushroom* (*Cortinarius Cinnamomeus*) appeals to the sense of smell as well as of seeing, and there are several Fungi of which the recent expedition furnished specimens which make the former appeal without any pretence to the latter. Before glancing at these we must just name the violet-capped *Agaricus eucureus*, found at Dinmore Woods on the 30th of September; the *Coprinus piceus*, or *Maggie Coprinus*, a rare roadside Fungus met with near Downton, the membraned cap of which is variegated with broad white scales, whilst its gills are free and of an ashen black; the mouse-grey *Agaricus gloiocephalus*, of which a large group was exhibited by Dr. Chapman from off the pastures of Burnhill; and the rare, pale-yellow, crisped *Sparassia*, which has been more than once imported into these shows from the Fir groves of Chetwynd, by Mr. Houghton. We must also say a word on the odorous Fungi, whether sweet-scented or the contrary. Of the first sort there were found at Stoke Edith, *Lactarius glycymeris*, and *Agaricus fragrans* and *odorus*; of the second, at Dinmore, the *Agaricus cucumis*, in an abundance commensurate with its strong odour, suggestive of rancid oil or stinking fish. *Ag. saponaceus*, too, was offered to our scrutiny, but pronounced,

after deliberation, to savour more of fish oil than of soap; and the interest displayed in Dr. Chapman's fine group of *Gloiocephalus* was to a certain extent qualified by its exceedingly repulsive smell. Occasionally in the course of the forays one lighted on a family of Fungi, such as *Agaricus mucidus*, the associations of which are more with the touch than the sight or smell. Unpleasantly slimy, it arrested the notice of the Woolhopians by its profusion at a certain point in Stoke Edith woods, both on the ground itself, and on the tall fine-grown Beeches which are its home.

The mention of these sylvan beauties suggests another element of interest in Fungus-hunting—namely, the introduction it gives one to the finest timber in our land. As we have said, the Fungi love the greenwood. And if, in the recent excursions around Hereford, the curious in such matters were too late by a couple of centuries to see at Stoke Edith the Elizabethan house of many gables, long since superseded by the present stately quadrangular mansion, or at Garnstone the original and characteristic mansion as it appeared in 1675, and was represented in Dingley's sketch, known to readers of the Camden Society's publications, in the place of which is a castellated mansion built by Nash, yet in each case they might have made acquaintance with giant Oaks and stately Elms which perchance have been the silent witnesses of changes yet earlier than these; Oaks and Elms still betraying no traces of decrepitude, and still, as of old, giving grace, dignity, and picturesqueness to the landscape. It is not every day that one sees anything so perfect in its way as the great hall at Stoke Edith, the walls and ceilings of which were painted by Sir James Thornhill, or as the geometric flower garden designed by Nesfield; and yet an explorer might be still better employed in threading the paths of the richly timbered deer park, and making his way to the broad and lofty ridge of Seager Hill, whence he may look out upon the country towards Gloucester, Monmouth, Abergavenny, Bromyard, and Salep, to say nothing of the hill and valley of Woolhope nestling close beneath his standpoint. And so with the demesne of Garnstone; the predominant charm is in the deer park and the heights that bound it, the latter commanding exquisite views of North and East Herefordshire, as well as of Shropshire and the mountain barriers of Radnorshire, the former affording a study of single trees and clumps and groups of extreme beauty, such as is not often to be met with. Here a couple of Scotch Firs, there a noble Spruce or Silver Fir, arrest the eye by their perfectness of symmetry, or their rich contrast of form and colouring with their surroundings. Groups of Spanish Chestnuts, clumps of Elms, or avenue-like arrangements of the same, promising Wellingtonias, and the like, show how much good taste may achieve without the aid of a professional landscape gardener, where the proprietor finds himself possessed of an over-abundance of fine timber, and approaches the task of thinning as a labour of love. Within the lawn and sunk fence at Garnstone, the mycologists were as much struck with the thriving *Conifera* of comparatively recent introduction as with the special denizens of the turf in quest of which they had come. There were perfect samples—for their age—of the *Picea nobilis*, *cephalonica*, and *Pinus*, as well as of the Californian *P. bracteata*, the leafy-bracted Silver Fir, a very promising young tree, which, perhaps on account of a well-chosen aspect, shows here no tendency to premature starting into growth, and thus is less affected by late spring frosts. The complaint of this species generally is the tenderness of its younger growths.—(*The Saturday Review*.)

THE LATE MR. JAMES BETTERIDGE.

ANOTHER old florist has passed away from among us, one of those who, devoting their time to one speciality and doing it with zeal, have thereby conferred a boon on horticulture. To the world at large Mr. James Betteridge was known by the success which had attended his culture of the quilled, or as it is now somewhat arbitrarily called, the German Aster; and the stands which he used to exhibit at the Crystal Palace and elsewhere were of such surpassing excellence, that his strain was sought for by everyone desirous of growing that particular sort. Mr. Betteridge was a farmer, farming his own land, and gardening was to him a real relaxation and pleasure. He was an ardent lover of the Tulip, and wherever the National Tulip Show was held he was pretty sure to be found. I never had the pleasure of speaking to him but once, at one of the autumn exhibitions of our Metropolitan Floral Society, but those who knew him speak of him as a kindly genial man; but all will

regret to hear that one who has so much added to our pleasures has been removed from us; but we hope there are others prepared to carry out still further the improvements he had made. D., Deal.

HEATING BY GAS.

I FELT very much interested by reading Mr. Shaw's experience of a gas-boiler. I have not at any time been able to ascertain exactly what amount of gas was used in those I have had to look after; but I am quite certain that gas is much more expensive than coke or coal where it is employed to heat a house containing plants requiring a continual heat. If only for a greenhouse to keep out frost, or to dry the house in damp weather, it is much cheaper than anything else that can be used.

The advantages are—being able to have gas in a place where it would be impossible to have a stovehole, and also to light it in a moment when you find frost coming on, and being able to regulate it to a nicety. Where a coke or coal fire is used, we are obliged to light a fire in the afternoon to have it in readiness when we are doubtful about frost, and often enough the labour and fuel are wasted, for when bedtime comes a change has taken place in the weather and fire is not required. With gas you can wait until the last moment before applying the match. There is the difficulty about getting the gas mentioned by Mr. Shaw, and anyone intending to use gas should consider a little before commencing. If the locality lays very low the pressure will be lost to a great extent, and this is one of the evils; but I think for a cool house enough could be had in any place.

The dimensions of any house to be heated by gas should not be much larger than what are mentioned by Mr. Shaw. The grand point of all is not only having a good boiler, but having it properly fixed. The apparatus should be quite close to the house and built-in, not leaving more than a foot space all round, with a door large enough to get the boiler out if required at any time. If placed in a shed the heat is lost, then there is failure. If it cannot be placed close to the house care must be taken to ease the pipes, and fill with sawdust or felt, and they must be watertight. If the heat is not confined as stated, a great quantity of gas will be consumed, and the heating will prove a failure after all.—M. B.

I THINK your correspondent (October 8th), has made a mistake in using 1-inch barrel instead of a sufficient quantity of ordinary 2-inch hot-water pipe, and in consequence he lacks sufficient surface-heating power, so that it is scarcely justice to pass condemnation on the boiler where evidently the blame is not attachable. Had the proper size and quantity of pipe been used, he would have found that instead of the "temperature falling considerably," as stated, after "eleven," it would not have fallen more than a few degrees even in the most severe frost, of course taking into consideration that his house is well built.

In reference to the cost of gas, I may state that where one person burns sufficient to cost 9s. per week, another person would get the same effectual result by only burning two-thirds the quantity. Your correspondent draws his estimate, I presume, from the boiler being on full during the whole of the day and night. This is seldom if ever necessary, as if the pipes have first been got hot at full pressure, the consumption can be materially diminished without inconvenience or loss, but, on the other hand, will prove a gain to the consumer. However, supposing it is as stated by your correspondent, I cannot but think he has, on the other hand, forgotten to take into consideration the fact of a coke or coal furnace in like manner being kept roaring all day (but am rather inclined to think he has allowed for letting it die out in the daytime), otherwise I should like to ask the question, How will he manage to keep a furnace boiler going day and night for twenty-four hours, and get it properly attended to during that time for the sum of 9s. per week, to say nothing of the inconvenience of having to turn-out in the early morning in order to keep Jack Frost from feasting his keen appetite upon his much-prized plants? I shall feel obliged if you can find space in your next issue for these few remarks, as I fear from the desponding nature of your correspondent's communication, it will have the effect of damping the ardour of many an amateur.—M. LEAN.

JASMINE FRUITING.—Arthur Sanders, Esq., Hazelmount, near Ryde in the Isle of Wight, has sent us specimens of Jas-

mine berries, quite ripe, gathered from the south wall of his house.

TREDREA,

THE SEAT OF M. H. WILLIAMS, ESQ., CORNWALL.

It is at all times agreeable to find something remarkably good at a place where it is least expected. Many years ago I remember finding on the verge of Bolton Moors, in Lancashire, as well-grown a collection of stove plants as the foremost London exhibitor could produce, and in the following February some very excellent Grapes at an equally out-of-the-way place still farther north. Unexpected treats of the kind are, however, by no means uncommon, and on a recent journey I met with one of these surprises; this time, however, in the far west and not in the north. Pleasantly sloping towards the sun, on a bank of one of the tidal streams which form branches of the great Falmouth harbour, the traveller sees through the trees which skirt the road some glass structures and other tokens of a well-kept garden; an inquiry soon elicits the information that the place we are looking at is Tredrea, the seat of M. H. Williams, Esq. Through the kindness of a friend I was introduced to the able gardener, Mr. Merton, my expectation being that most likely many half-exotic plants would be there luxuriating out of doors, together with healthy Camellias, Rhododendrons, and the like, and this anticipation was fully realised, whilst under glass many interesting Orchids and other stove plants are cultivated, some specimens of the latter far exceeding those often met with in the most celebrated plant-growing establishments near London.

I will, however, just take a glance at the place before entering on its details. Tredrea occupies a site not far from the Perranwell station on the West Cornwall Railway, and near what appeared to me an unusual interruption to the quiet repose of a country district, an iron foundry and other works resounding with the tones of the heavy forge hammer. The tidal stream also floats-up large masses of timber. An excellent road, equal to any highway in the kingdom, and leading, I believe, from Truro to Penryn, skirts the property, the mansion and grounds being separated from the road by a belt of trees, through which a carriage drive soon enables the traveller to reach the garden, the mansion, however, first passed; and it, like the garden and grounds, carries the slope to the valley, in which is the armlet of the tidal water previously referred to. The slope of the ground that may be called dressed was all in one direction, and though quite steep enough for kitchen-garden tillage, was not too much so for turf and pleasure-ground purposes. To the latter attention will be first directed, premising that the mansion facing the same way, the chief portion of the grounds is in continuation of its left wing.

As I have on a former occasion mentioned that several plants usually grown under glass are in Cornwall often met with out of doors, I will not now repeat those before named, although most if not all of them were represented here; but what struck me as remarkably fine was a Camellia growing against a wall and occupying a space 18 feet by 10 feet, with the probability of soon requiring double the space if it was to be had. A fine *C. Donckelaari*, which was taken up and planted again in 1873, hardly showed any symptom of having been moved except in a more restricted growth. Some other kinds were also growing against the same wall with equal vigour, the aspect being south-east; but aspect and wall did not seem to make any difference, as all were good. A bed was shown me, now grown into a mass, the plants of which were very small when bought at a sale in Covent Garden some years ago. Azaleas were also flourishing, while on a border at no great distance from the Camellias were the remaining stems of what had been fine flower spikes of *Lilium giganteum*, 11½ feet high, which must have been magnificent. Not less so were some *Hedychiums* growing with all the vigour of *Cannas*, and what was more, the rich and much-valued *Vallota purpurea* was equally promising outside; although it had not reached the flowering condition at the time of my visit, there was every prospect of its doing so ere long. Other Liliaceae and kindred plants were also duly represented, as well as *Cyclamens* in abundance. On the lawn I noticed a fine tree of *Picea Nordmanniana* that was bearing cones, and in the kitchen garden an excellent Peach wall some 12 feet high well covered with healthy trees. I ought also to have noticed a very good deciduous Cypress, and I was told that *Echeveria secunda* and its varieties were quite hardy.

Turning to the glass structures my attention was arrested by the vigorous condition of most of the plants, more especially Orchids, which were divided into two classes—stove and cool-house Orchids, and their condition showed unmistakably how well Mr. Murton understands the culture of both, so as to give to each species the heat necessary to grow it well, a distinction which in a great many cases is not at all understood. All were in the most vigorous health, but I only took the names of a few, among which were the following:—

Lælia anceps, with seventy flower scapes; a very fine plant, promising to be even finer another year.

Lycaste cruenta, a very large and fine plant, likely to bear dozens of flowers.

Cattleya Dowiana, a very large fine plant, said to have produced a large number of flowers.

Cattleya crispata, by some called *Lælia crispata*; a very fine plant, having at the time of my visit nine spikes and nearly one hundred flowers out, besides which it was equally promising for the future.

Cattleya Mossiae, very good and large. I believe this was one of the approved varieties of this fine Orchid.

Dendrobium Bensoniae. A large and very fine plant of this species was said to have been beautifully in flower some time ago.

Dendrobium chrysanthum. Mr. Murton thought this about the best of some fifty or more *Dendrobies* he was acquainted with, and the plant he had was certainly a promising one. He thinks there are more varieties than one of this species, and that the best of these has the richest colour of the family.

Renanthera coccinea, a very fine specimen; had been highly ornamental when in flower.

Oncidium ampliatum majus. An immense mass of this. Very good.

Oncidium of several other species, of which I did not learn the specific names, all good, and all occupying the cool house.

Dendrobium eburneum. Although there was a very large plant of this choice showy plant, yet Mr. Murton thinks *D. chrysanthum* is superior; as it was, this was equally good as a plant.

Calanthe vestita, also very large and fine.

Phalenopsis Schilleriana, a large plant also. I understood had been very fine and good.

Vanda tenuis, also very large and fine.

The above are only given as a few of the many fine Orchids cultivated at Tredrea; and in regard to their being all so large, it may be said that there is not the motive to multiply them as is often done in a nursery, and sometimes also in private gardens. Here it would seem that a really good specimen is more valued than several small ones; hence almost everything was large and fine. And as an example of what plants were common at this place, I may mention that there were two masses of that old but universal favourite *Vallota purpurea* in full flower in pots at the time of my visit. On one of them I counted thirty-six flower-spikes all bearing large brilliant flowers, and the other had twenty-five spikes. Two such noble plants are not to be met with every day, and a few such would have much weight at a flower show. I may add that *Rocoea falcata* was equally good; indeed all flowering plants were so, as were some Ferns; but stove plants, having only their foliage to recommend them, were not encouraged. Although more extensive collections are to be met with, I doubt whether there are any really better grown; it consists, too, of only the best kinds, all inferior ones being discarded.

I may, perhaps, be pardoned mentioning that one of Mr. Murton's neighbours is an experienced traveller, whose name is well known to all who care for what is really good and choice of the trees and shrubs of the mountainous parts of South America, and his name is associated with Orchids as well. I allude to one of the Mr. Lobbs, for there were two brothers, both collectors of plants, one in the east and the other in the west. One, I believe, is now no more; the other still lives in this part of Cornwall, his native home, his health having suffered, as may be expected, from the privations endured in his travels. With such an intelligent neighbour we might almost envy Mr. Murton, while the intending exhibitors of Orchids at forthcoming shows would be likely to envy his fine specimens which comparatively few will see, not that they are ever denied to anyone, but the place is out of the track of those who usually cultivate such plants—a fact which reflects the more credit on Mr. Williams and his gardener for their being so good.—J. RONSON.

TALLIES.—A cheap and unobjectionable tally for outdoor work is still a desideratum. After trying several sorts, I give the preference to Maw's earthenware No. 5, though very

brittle. I write on them with a solution of chloride of platinum thickened with a little gum, and then make them red hot in a clear fire. The writing is permanent, but as it is difficult to write neatly on the earthenware, I generally use numbers, though this again involves the trouble of keeping and referring to a book.—G. S.

NOTES AND GLEANINGS.

WE are informed that an INTERNATIONAL HORTICULTURAL EXHIBITION will take place at ANTWERP, commencing on April 4th, 1875, under the auspices of the Royal Society of Horticulture and Agriculture of that town, and promises to be on a large scale. An INTERNATIONAL EXHIBITION OF FRUITS will also be held at AMSTERDAM in October, 1875, under the management of an influential committee.

A NEW HORTICULTURAL GARDEN has been opened at ST. PETERSBURG under Imperial patronage. It is fifteen acres in extent, and is to be devoted principally to illustrate how native plants may be combined for pretty and tasteful decorations. One large portion is to be devoted to Conifers, in order that there may be, even in winter, green promenades.—(Nature.)

SOME LARGE WALNUTS have recently been on view in Covent Garden Market, weighing as much as 5½ ozs. when gathered. They were grown at Teddington, and are well-flavoured perfectly-formed fruit.

ON the 14th inst. the Right Hon. the Lord Mayor, Sir Andrew Lusk, M.P., and the Lady Mayoress entertained the Master, Wardens, and Court of Assistants of the FRUITERS' COMPANY, in accordance with an ancient custom, at dinner at the Mansion House. The invited guests also included the Masters of the Merchant Taylors', Mercers', Masons', Musicians', Painters', Pewterers', Plasterers', Pontleers', Saddlers', Skinners', Spectacle-makers', Stationers', Tallowchandlers', Turners', Vintners', Weavers', Bakers', Barbers', Blacksmiths', Broderers', Butchers', Carpenters', Clockmakers', Clothworkers', Coach and Coach-harnessmakers', Cordwainers', Distillers', Farriers', Girdlers', Glass-sellers', Joiners', Leather-sellers', and Loriners' Companies. The dinner was served in the Egyptian Hall, and was principally given to the Fruiterers' Company in commemoration of the settlement long ago of an old grievance between them and the Corporation, arising out of the Lord Mayor for the time being from year to year in ancient times claiming a metage on fruit brought into the City market. This impost became so irksome to the traders that at length it was commuted into a voluntary offering by them to the Chief Magistrate annually of a choice selection of fruits of the season, he in turn inviting them to dinner at the Mansion House.

ATTENTION is being again directed to the CULTIVATION OF CINCHONAS IN ST. HELENA, which at one time promised so well, but which has, owing to changes in the Government, been allowed to lapse into decay. Some seven or eight years since, when the island was under the governorship of Sir Charles Elliott, Dr. Hooker strongly advised a trial of the plants to be made, and plantations were formed at Diana's Peak. So satisfactory was the progress of the plants that the Government consented to the selection of a gardener from amongst the best or most intelligent of those to be obtained at Kew. One was chosen and sent out, and, to quote from a recent number of the *St. Helena Guardian*, "All went well so long as Sir Charles Elliott was at the head of affairs: plantations were formed, and the gardener, Mr. Chalmers, was treated as one having the charge and responsibility of an important colonial experiment, and the plants grew well up to the time when Sir Charles Elliott left and Admiral Patey was appointed in his stead. The new governor at once decreed that the plantations at Diana's Peak were a mere foolish waste of money, that the gardener sent out from Kew would be better employed at Plantation House, and employed he was, chopping firewood and raising Beans, Peas, and Radishes, and selling them for the benefit of the privy purse of Government House, and the Cinchona plantations were left to go to ruin or to flourish by their own unaided vigour, as the case might be." The result of three years' cultivation and three years' subsequent neglect seems to be, that although there are a few dead and sickly plants, nearly all the trees are in full vigour and luxuriant growth. There are about three hundred flourishing plants, many of which are 12 feet high, and 3 to 4 feet in diameter. The bark is also a quarter of an inch thick, and has an intensely bitter quinine taste. Many of the plants in the St. Helena

plantations have the lower part of their stems bound up with moss in order to try if the bark would not swell and increase more rapidly; but it has had the effect of showing, by the bursting-out of rootlets from the part so bound with damp moss, that the plant throws forth roots readily from the bark, and thus may be easily propagated by cuttings. The Government has recently been again in correspondence with Dr. Hooker on this subject, and it is to be hoped that the cultivation will be again renewed and prosecuted continuously.—(*Nature*.)

—We learn from the "Belgique Horticole" that that cryptogamic pest the *Puccinia Malvacearum* is making sad havoc among the Mallows and Hollyhocks in some parts of Belgium.

—PROFESSOR GABBA has been examining THE EFFECTS OF AMMONIA ON THE COLOUR OF FLOWERS. It is well known that the smoke of tobacco will, when applied in sufficient quantity, change the tint of flowers; but Prof. Gabba experiments by pouring a little ammonia liquor into a saucer and inverting a funnel over it. Placing the flowers in the tube of the latter he finds that blue, violet, and purple-coloured blossoms become of a fine green; carmine and crimson become black; white, yellow; while parti-coloured flowers, such as red and white, are changed to green and yellow. If the flowers are immersed in water the natural colour will return in a few hours. Professor Gabba also found that Asters acquire a pleasing odour when submitted to the fumes of ammonia.—(*English Mechanic*.)

—THE volcanic soil in the neighbourhood of Vesuvius is stated to be an antidote to the Potato disease and other fungoid diseases of plants. It is also said that it is found of great value in the treatment of Phylloxera; this, however, remains to be proved.—(*Nature*.)

—THE PHYLLOXERA has appeared in Switzerland, and the delegates of the wine-growing cantons met on the 5th inst. to consider the best means of preventing its extension.

—THE consumption of OSIERS for various purposes, in England especially, is very great. Besides her own production, this country imports more than 5000 tons, valued at about £40,000. About three hundred varieties of Osiers are known, the most important beds being situated near Nottingham. The home produce being insufficient to meet the demand, great attention is being paid to the cultivation beds in Australia, and a considerable quantity is yearly produced in that country.—(*Nature*.)

THE BEST CURRANTS.

THE old Red Dutch and White Dutch are good reliable sorts, and we would not advise anyone who has them growing in his garden to throw them out. Larger Currants, however, may be picked more readily; they make a finer show on the table, and they last longer on the bushes without drying.

The two sorts that we place above all others, therefore, are the White Grape and Versailles or Cherry. Mixed together they make a beautiful table dish. The only drawback of the White Grape is the slow and straggling growth of the bush; but this objection is obviated by giving them clean and mellow culture, applying manure occasionally, and keeping them sufficiently pruned. It will not do to neglect them, and to allow them to become enveloped in grass and weeds—the usual fate of Currant bushes with careless managers. The Cherry, on the other hand, is a strong grower, and does not absolutely need such generous treatment, but it is better to cultivate it well, and prune the bushes as they require it. Our own bushes of the Cherry, which have stood in the garden fifteen years, are three times as large as those of the White Grape planted at the same time, and they always bear profusely. When allowed to hang long, and become fully mature, they lose their objectionable acidity, and are a rich and agreeable berry.

The Versailles is so nearly like the Cherry, that if the planter has one he need not take the trouble to procure the other, although the bunches of the Versailles have the advantage of being rather longer.

The Victoria and Prince Albert are good very late varieties—the former red, the latter pale red—a few of which may be planted for a succession.

All that is absolutely needed in the pruning which we have alluded to is to cut out the old and enfeebled wood, to give the younger shoots, evenly distributed through the bush, a better

chance to grow. This will make large bunches and berries.—(*Country Gentleman*.)

THE BEAUTIFUL AND USEFUL INSECTS OF OUR GARDENS.—No. 26.

IN view of the great destruction of life that is ever going on in the insect world, it has been suggested that the phrase of "dying a natural death" can have hardly any meaning there. So many insects have their lives cut short by quadrupeds, birds, reptiles, fishes, and by their own brethren, besides what they are liable to from the hand of man and atmospheric influences, that to die thus suddenly seems the more natural mode, and death by decay or old age rather out of the usual order of things. We know that it is almost impossible to find a dead donkey, and though this cannot be said of insects, the number of bodies one sees about of creatures belonging to this race is comparatively small; for those that are suddenly killed are often as suddenly eaten up, even to the fragments. And in the case of the few insects that die peacefully, their friends have never any occasion to resort to cremation, as mites and other small creatures are generally at hand to reduce the carcase to a mere shell. Some birds also, as is well known, though they will not usually eat dead insects, hunt up beetle elytra and moth wings to interweave with their nests.

The Scorpion Flies (see fig. 107), however, frequent visitants to the garden during the summer season, prey upon living insects in their imago state; the larvae, about which not much is known at present, are conjectured to feed upon the roots of plants. That they live under the earth is certain. Whether they are strictly vegetarian may be questioned, since it is quite possible that, like the flies into which they develop, they may not withstand the temptation to devour anything alive that they come across in their subterranean rambles, and which it is in their power to master. A glance at these insects as they dart about amongst the leaves in the sunshine at once suggests to the looker-on their affinity to the Dragon Flies, though they are not so agile nor so fiercely carnivorous as their relatives. But I have no doubt a Scorpion Fly can put away in a day a fair number of small insects. As two or three species are reported to feed upon those leaf-rolling caterpillars which the gardener finds it so difficult to deal with, we have reason to be obliged to them. I have myself frequently seen them on bushes which were swarming with caterpillars, but could not detect them in the act of tearing these from their abodes—an act, nevertheless, which it is most probable they perform, and for which the long head with its powerful jaws and the spined feet are particularly fitted.

History carries back the name of Scorpion Fly to the days of Aristotle, who fancied these insects were winged scorpions of diminutive size, though in the mind of some a doubt may arise as to the identity; for, of course, Aristotle did not leave us a figure of the Scorpion Fly he knew. The joints of the abdomen do suggest a comparison between the two. Other observers have seen a resemblance between the shape of the head (in one species at least) and that of the horse. We miss the brilliancy and lustrous beauty of the eyes so observable in the Dragon Flies; but yet these organs are keen enough in the Scorpion Fly tribe. The wings are gauzy, as in the Dragon Flies, and spotted with shades of grey and brown, while the forceps at the tail of the male fly indicates another resemblance; this is said to have strength to pierce the human skin, but I incline to doubt this. The females, unlike the Dragon Flies, have an ovipositor or egg-placer, rendered necessary by the mode in which the eggs are deposited, otherwise they are equipped as are their partners, and they subsist in the same manner. The legs of these insects, to which allusion has already been made, are well worth looking at under a moderate magnifying power, as they are surrounded with finely-cut spines arranged in rings, while the "knee joints" are fringed and spurred, and the extremity of the foot bears toothed claws, which have been compared to those with which some spiders are furnished. The Panorpidæ fall into that division of the Neuroptera where the pupa state is inactive, and they are nearly allied to the Hemerobii, or Lace-wing Flies, the notorious foes of the aphids. We have five British species, the most familiar of which is *P. communis*, supposed to be partial to places that are damp or low, in preference to elevated lands. This may be connected with the habits of the larva. There may be more than one brood of these flies in the year; if so, the winter would be passed in the egg state, the eggs first laid in the summer producing larvae that grow rapidly, and deve-

lope into flies ere the weather has begun to get cool, leaving behind them eggs for the next season. The larvæ of the Scorpion Flies are cylindrical in shape, studded with tubercles, and with short fore-legs; the head, somewhat flattened, facilitates the burrowing operations that are essential in their mode of life. Having reached maturity, each one scoops out for itself a cell, and there becomes a singularly squat pupa, exhibiting not much resemblance to the perfect insect that is to appear from it. It should be noticed that if one of these flies is laid hold of, it executes such contortions that some persons are alarmed and speedily let it go. *Boreus hyemalis* is a

rather scarce insect with us, and one of the few that come forth in the winter. Though the legs are long, the form of the head shows its connection with the *Panorpidæ*; and on the back the wings are gathered into a kind of bunch, which Mr. Wood compares to the hump with which the traditional Mr. Punch is adorned. The female has the wings almost suppressed, and both are not much beyond the size of a good-sized aphid.

The Snake Flies (*Raphidii*) form another section of the Neuropterous insects. The designation, both in Latin and English, arising from the length of the prothorax, which forms



FIG. 167.—METAMORPHOSES OF THE SCORPION FLY (*PANORPA COMMUNIS*).
(Engraving lent by Messrs. Cassell & Co.)

a peculiar neck, supporting a head also peculiar in shape. These flies are most common near ponds and rivulets, though from their preying on winged insects, they occasionally visit gardens when flowers are abundant, and attract flies by their honied stores. A female *Raphidius* has an ovipositor formed of two blades, its use being different from that with which the genus *Panorpa* is furnished, as the eggs of the *Raphidii* are thrust under the bark of trees. The larvæ of the Snake Flies present the same singularity as do the imagoes, according to Professor Westwood; and they are serpent-like in action as well as appearance, on the same authority, for he describes one as creeping slowly along, giving to the body violent jerking motions from side to side. We may assume that it moves thus in order to seize its prey, since in habit it is as carnivorous as the fly. It is probable that Figuiér is in error in representing the pupæ as active, a statement, indeed, which is almost contradicted by his own figure. Staveley asserts that though at first torpid, when near the end of its pupation a Snake Fly begins to move about. In neither of these stages are the insects

easy to discover. The flies attract notice, however, in the spring, ere the host of the Diptera are on the wing.

At this time of the year those who are busy in horticultural pursuits, either in or out of doors, are sure to come across individuals belonging to the family of the Myriapods or Centipedes, which, though now by naturalists separated from the true insects, are so commonly associated with them in popular phrase that they may claim a passing mention. Reputed to be hostile to the garden, they are not all deserving of this bad character. Everyone is doubtless at times a vegetable feeder; but the species belonging to the "Hundred Legs" section of the Myriapods are also destroyers of insects, some even that are larger than themselves. The "Thousand Legs," on the contrary, do mischief without any alleviation. In both divisions the names are not to be taken literally, it must be remembered, for the *Julidæ*, common types of the "Thousand Legs" have about three hundred feet, and if we count the legs of a *Scelopendra*, by no means could we make out anything approaching the hundred. In all these species the insect com-

mences life with a moderate number of legs, and grows more by degrees as it increases in size and strength. The Centipedes proper, Scolopendra, are undoubtedly good hunters; the head, which is horny and shield-like, has beneath a pair of formidable jaws, which cut sideways. Under the microscope we detect a slit near the extremity of each edge, from which it is presumed a poisonous liquid is instilled into the wound. The legs of a Centipede allow of rapid locomotion, and they are covered with such tough scales that a considerable amount of pressure does little harm. We are too apt to imagine that when we discover a Centipede on some plant it has visited the plant to do mischief, whereas it is often merely intent upon the slaughter of other species. Sir John Lubbock has given an interesting account of several small Myriapods of the genus *Paucopus* observed by him to be racing about rapidly amongst dead leaves; and of one named *P. Huxleyi* he states that is a "bustling, active, neat, and cleanly little creature," which seems a curious collocation of adjectives, and it has also "a look of cheerful intelligence, which forms a great contrast to the dull stupidity of the Julide, or the melancholy ferocity of most Chilopods." These Centipedes have one long alimentary canal, therein resembling Lepidopterous larvæ. They pass through no regular transformations.—J. R. S. C.

LAPAGERIA ROSEA.

I HAVE a very large *Lapageria rosea* growing on a north wall inside the conservatory, which has flowered most magnificently



Fig. 108.—*LAPAGERIA ROSEA*.

this summer, and I have no doubt it will continue flowering till next May. I enclose you a few flowers to show you the size they grow to. No plant is more easily grown. We have had an immense quantity of seed from the plant this year. It has been fifteen years growing, and was one of the first plants imported; and from the earlier plants the flowers are much more brilliant and larger than the later-imported ones. I believe it to be the largest plant in the north of England.—L. HAMMER, *Deanwater, Wiltshire*.

"We never saw more brilliant-coloured or larger flowers. In one cluster of six flowers they were 3½ inches long, and nearly the same across their mouths. We know it must be a most ornamental climber, and judging from the leaves and portion of branch sent to us, it must be most vigorous. Not as doing justice to the specimen sent, but to show its mode of growth to those of our readers who may not know the plant, we add this wood engraving (fig. 108).—EDS."

NOTES ON VILLA AND SUBURBAN GARDENING.

Window Plants.—If it were possible to single out any part of plant-growing as being more popular than another in large towns, I should say it is that of growing plants in windows. It is in reality plant-growing by the million, for who is there that has any fondness for plants at all that does not attempt something of the kind? Happily this increasing love for plants among the population has been recognised by the Government so far as London is concerned, and thousands of surplus bedding plants are annually distributed to persons who would not otherwise have the means of procuring them. I need scarcely say that I consider this a step in the direction towards making many towns more comfortable, because they will be more sociable and neighbourly as the love for plants increases. Now I presume that there are yet many people who would devote more of their spare time to window-gardening if they knew what plants there

are that would thrive in such positions; I therefore purpose naming a few of those most common and easily-procurable things. First, there is the *Calla aethiopica*, or Ethiopian Lily, a plant that throws up several stems with broad dark green leaves at this season of the year, and produces large white flowers in the spring of the year—a most admirable plant for a window in any position. Next are some of the *Cannas*, which are used in the flower garden. These are plants with handsome leaves of a large size, and, if taken up and potted carefully, will produce their bloom later on and then die down, when the roots may be preserved like Dahlias in some cool dry place till spring, and then again planted out. These plants, like the *Callas*, are increased by division. *Solanums* of the *Capsicastrum* type, such as were mentioned some time ago, must not be forgotten, as the profusion of bright-coloured berries makes them excellent decorative plants for windows. The different sorts of *Chrysanthemums*, too, are all decorative plants for windows for some time to come; and if any are growing in the garden, now is the time to take them up and pot into common garden soil, and if watered carefully will flower remarkably well by this treatment. After flowering they may be turned out of doors again, as they are all hardy. The old *Hydrangea hortensis* is an excellent window plant both for foliage and bloom, and one of the most lasting when in flower. Associated with the above tall-growing plants must be the *Myrtle*, a rare old favourite, and a plant that will thrive with ordinary attention. Other plants that may be mentioned as suitable for the window in winter, and which may be arranged in front of the tall plants, are *Geraniums*, *Cinerarias*, *Primulas*, and *Calceolarias*, with *Hyacinths* in pots or glasses, *Tulips* and *Crocuses* intermixed with them; and for suspending from the top of the window a good plant

will be found in any of the Ivy-leaved *Geraniums*, *Ferns*, and *Saxifrages*.

Now let me devote a little space to the treatment of window plants. First as to *potting*. A plant should never be put into a dirty pot. If the pot have been used before it should be thoroughly washed, and be quite dry when used; if not, the soil adheres to its sides, and when the plant has to be turned out for repotting the ball is sure to be broken, and of course the roots of the plant injured. The soil, too, should be used in a medium state of dryness. If too wet it becomes hard and crusty and almost air-tight, consequently no plant will thrive long in it. *Potting* and *pruning* ought not to be performed at the same time. Deciduous plants, such as the *Fuchsia* for instance, ought not to be potted till they have made a start into growth; consequently it is best to do the pruning first and allow the buds to just break into growth, and then the roots are in a fit state to take hold of the fresh soil. Every pot should be carefully and liberally drained, and the drainage covered with moss or rough material to prevent the soil from washing into it and stopping the outlet of the water. In *watering* window plants the greatest care is necessary, especially during winter; for to deluge the roots with water as some do is pretty sure to terminate fatally. Enough water should be given to penetrate the soil thoroughly, and no more. The plan of standing the pots in pans or saucers is not a good one: it prevents the free drainage of the water from the roots, and in time turns the soil sour, and the plant falls into bad health and dies. When watered, the plants should be taken to a place where the water can drain away, if there is no convenience for that in the window. On the other hand, plants must not be kept too short of water when growing freely; for if the soil be too dry, and the roots cannot obtain enough moisture from it, the plant suffers that way. When a plant^{is} requires water it should be watered well; and as some plant^{are} require more water than others, the difference should be made up by watering these plants oftener, and not make a practice of watering every plant at regular periods whether they want it or not.

Give window plants plenty of light and air now, and do not

crowd the window too much, as it is much more pleasing to grow a few plants well than to have so many for the sake of variety and do none well.—THOMAS RECORD.

DOINGS OF THE LAST AND PRESENT WEEKS.

KITCHEN GARDEN.

REMOVING the stalks from the *Asparagus* beds, after cutting them over close to the surface of the ground. They are carried away carefully, so that the seeds do not fall on the ground, where they are a considerable nuisance, as they vegetate freely during the ensuing summer. The treatment of the beds here is another characteristic of our soil and climate. Most persons are aware of the usual method of growing *Asparagus*. The most common is to plant in beds from 4 feet wide, and to allow only about a foot distance between each plant. An alley 18 inches wide is allowed between the beds, and from this the mould is thrown out on to the beds until the alleys are a foot or more deep, as we have seen them this year. Our method is to keep the beds level or nearly so throughout. This year we will give a good dressing of rich manure over the surface of the quarter, and, as there will be plenty of spare soil, a dressing of this over it. The plants are 18 inches apart, and the rows 2 feet. In our dry soil deep alleys dry the ground too much.

Planting-out *Lettuces*. These and *Cauliflowers* were sown with the autumn Onions. Better plants of each are obtained in this way than by sowing in small beds, where the plants are frequently crowded together; and if they are not planted-out as soon as they are ready, they become weakly from overcrowding. Being distributed thinly amongst the Onions they do not suffer in this respect. We used to grow the Brown Cos for winter, as it is thought to be the hardest; but we have never failed with the Paris White, and now grow the best type of it, Hick's Hardy White, exclusively. If the ground had been ready for the Cauliflower plants they also would be put out. For the earliest crop the sooner the plants are out after the middle of October the better. A second sowing should be put in early in the same month to succeed them. A large quantity of *Gladiolus* is grown in the kitchen garden, and as the ground is made rich for them, it answers for Cauliflowers without manure; merely digging the ground over, a little fine dry loam is put on the place where the hand-lights are to stand in which to plant-out the young plants.

Red Cabbages are also planted-out at this time. They are sown also in the first or second week in September. This is early enough in the neighbourhood of London; in the north and all cold districts it is better to sow two weeks earlier. We saw a specimen of a Red Cabbage grown in the south from seeds sown about the middle of August; and instead of one large compact heart as firm as a cannon ball, the plant had broken into about a dozen small loose heads, and the entire crop was the same. The seeds were blamed for this, but there could be no doubt that the seeds were sown too early, which induced a tendency to run to seed.

Potatoes are being lifted and stored. The crop is good and free from disease. This is not the case in Scotland. In some districts from one-third to a half of the entire crop is bad; and the autumn rains having set in, there is little chance of getting what is good stored in good condition.

Removing the decaying leaves and weeds from *Sau-kale* beds. This allows the sun and air to get at the crowns; and by stirring the surface the maturation of the plants is effected, and they are thus in better condition for early forcing.

FRUIT AND FORCING HOUSES.

Pines.—The fruiting plants are all in a house by themselves, and can be treated to a drier atmosphere. The temperature is lower than in the houses where the plants are growing or maturing for forcing early in the following season. We have tried various methods to keep the fruit of *Pines* after it is ripe, and have found none to answer so well as cutting the fruit before it is quite ripe, and then placing them in a box in the fruit-room that is not quite air-tight, but very nearly so. Here they will keep longer than they will if the plants are allowed to remain in the house, or even if the whole plant is removed to a cooler house. The crowns of Smooth-leaved *Cayennes* may be saved as the fruit is used, and potted in small pots, using a lighter compost. As it is now late in the season, plunge the pots in a brisk bottom heat, and do not water for a week at least after potting. Those intending to grow *Pines*, and who require to keep-up a supply for the winter months, should grow the above-named sort almost exclusively. Black Jamaica may be better flavoured, and Charlotte Rothschild may sometimes produce larger fruit, but for general good qualities the Smooth-leaved *Cayenne* is better than both sorts together. We do not maintain so much as atmospheric moisture now; all that is required is to damp the interiors and walls of the houses twice a day in warm dry weather, and once only in dull weather. The evaporating-troughs are not supplied with water after this time.

Peach Houses.—It may be as well to repeat the caution about keeping the inside borders sufficiently moist. There is not much

danger of too much wet if the drainage is good, but much injury results from overdryness. If it is intended to have the fruit ripe about the end of May the trees will be bare of leaves, so that any pruning required may be done at once. The instructions given during the growing season have been to thin-out all wood not required for fruiting. The trees must now be loosened down from the trellis, and the young wood be tied up in bundles to be out of the way when the glass, woodwork, and wires are being washed. The trees should also be washed with soapy water, using a sponge. No injury will befall the buds if the shoots are washed the right way—not against the buds. Brown scale is prevalent in some places; it is easily destroyed by washing it off with the sponge. The inside border is treated in the same way as that recommended for Vines last week.

We are often asked what are the best varieties of *Pesches* and *Nectarines* for forcing. Not more than three or four of each are required, which makes the selection very difficult indeed. Of *Pesches* Early Rivers, Early York, Royal George, and Barrington will give a good succession. Of *Nectarines* we would name as the best four Hunt's Tawny (Rivers's Lord Napier may be preferable, but it has not been sufficiently proved), *Violette Hâtive*, Pine Apple, and Victoria.

GREENHOUSE AND CONSERVATORY.

The *Tacsonia Van-Volcemi* is a beautiful object at this season of the year planted out in the conservatory border, and trained high overhead so that the flowering growths hang down for many feet. *Lapageria rosea* and *L. alba* are now surpassingly beautiful. What a glorious sight is the long corridor at the Messrs. Veitch's nursery, King's Road, Chelsea, canopied with both varieties intermingled! From one end to the other the snow-white and rosy-crimson bells are studded thickly, and beautiful as stars in the Milky Way. Our own plants are also loaded with flowers. The stronger the young growths thrown up from the base of the plant are, the larger will be the clusters of flowers. If a very strong growth is stopped at, say, 9 or 12 feet, flowers will be formed at the axils of the leaves for about 2 feet down the stem.

Mildew had appeared on some of the hardwooded plants, and the weather is very favourable at present for its rapid development. Dusting with flowers of sulphur stopped its progress.

It is always best to pot *Liliums* as soon as the stalks die down. This was not done at that time, so that the early and late-flowering varieties have been potted at the same time. In cases where the pots are large, and a number of roots are grown in one pot, the roots are separated from each other, and nearly all the mould is shaken from the roots; the largest bulbs are then planted in the centre of the pot, placing smaller roots round the sides. A number of roots are also potted singly in 5 and 6-inch pots; these are very often more useful than larger plants for working-in amongst other plants. The bulbs that were grown in such small pots last season will not be disturbed much now. The surface mould and all the roots that came from the base of the flower stem are removed and the plant repotted, this time in 7 or 8-inch pots. The best potting material is turfy loam four parts, leaf mould one part, rotted manure one part, with some sand added to the compost. Some persons add turfy peat, but it is not necessary to do so.

Acacias are now shedding their leaves. It is necessary to shake the plants occasionally and to sweep them up to keep the places tidy. Thinning the buds on the *Camellias*. With care in watering the plants and ventilating the house none of them will drop after this time, and the plants have usually three times as many as they will bring to perfection.

FLOWER GARDEN.

The slight frost early in the month cut down the *Colceus Verschaffeltii*. Nothing else was killed by it, but the dashing rains and wind have finished-up nearly all the beds for the season.

Lifted the *Gladiolus* roots. Although the spikes were not so strong as usual, and the roots, as a consequence, of this are not so large, they are very sound and well ripened, and the beds contained fewer failures than usual. Some extensive growers complain of many blanks in their beds, but in nearly every instance it will be found that overgrowing the plants is the reason. Manure water applied in quantities may and does cause a very strong growth, but it is at the expense of the ultimate health of the roots. The roots in every case are cut from the stalks at once and spread out in a dry place; when convenient they are cleaned and stored away in papers for the winter.—J. DOUGLAS.

TO CORRESPONDENTS.

* * All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

BOOKS (B. T. J.).—We do not know the book you name. Thompson's is as useful now as when first published. (J. H.).—The best is Vere Foster's "Preliminary Drawing Book," published by Marcus Ward, Chandos Street.

SECRETARIES OF HORTICULTURAL SOCIETIES (W. M. P.).—We know of no rule binding secretaries to send copies of schedules to applicants, nor should they be asked to do so unless the cost of postage accompanied the application.

MONTHLY TENANT (J. P.).—You cannot legally remove the shrubs and other plants you have planted unless your landlord permits.

TREATMENT OF ROSES IN POTS (H. T.).—The treatment you propose, if well carried out, will insure success. The plants are more liable to be attacked by green fly than red spider. If you want good flowers in winter it will be necessary to place the pots in the forcing house or pit. Syringe the plants daily, and if green fly appear fumigate with tobacco. You also mention "resting" and "hardening-off." Now a Rose tree is never at rest, unless the temperature is near or under the freezing point, so that the roots must not be dried up. In winter not much water is required. When the flowers are about to open remove the plants from the forcing house to the greenhouse, and after flowering still keep them under glass if the weather is unfavourable. Do not place the pots out of doors until May.

TRANSPLANTING TEA ROSES (G. W. J.).—Next month we should remove them from the stiff clay soil and plant them in the lighter loam. The planting would be safer performed now than in spring, but we should not move them until next month, for the wood, as they are flowering, will not be over-ripe, but they will be better off frost to stay their growth. They will need in their new quarters to have protection given the roots as well as the heads in severe weather, and nothing answers better than dry litter, bracken, or hay lightly disposed over the heads, removing it in mild weather.

TWELVE DAHLIAS FOR EXHIBITION (W. R. C.).—Arbitrator, Earl of Radnor, John Standish, Lesh, Lady Gladys Herbert, Mrs. Doring, Richard Heady, Ovid, Toison d'Or, Umpire, William Pringle, George Eliot, Lord Derby. There is little difference in the earliness of Dahlias. Plant early, and protect with branches of spruce for a few days.

ZONAL GERANIUMS FOR COOL HOUSE (S. P.).—Jean Sisley, scarlet; Warrior, ditto; Miss Rose Peach, rose; Madame Rundersdorff, salmon; Mrs. Rousby, clear salmon; Vesuvius, scarlet; Madame Vaucher, white; Leonidas, bright red.

PHLOX (Idem).—Emile Mezdard, Liervallii, Nightingale, Orphée, Rigolette, Souvenir des Terres, Virgo Marie.

PENTSTEMONS (Idem).—Conquest, Flambeau, George Sand, John Blaikie, Minstrel, Robert Rutherford, Thomas Brier, William Sutherland. These are all good sorts, but you should apply to any of the eminent florists who advertise in our columns, and ask them to supply your wants.

LEeks FOR EDGING (Echeveria).—We never heard of their being so employed. You must mean *House-leeks*. They can be had of the principal florists who advertise in our columns.

REPLANTING LAPAGERIA ROSEA (An Old Subscriber, Dublin).—The north or shady side of the house is more suitable than the south or "sunniest side," and we should at once transplant it to the former, moving carefully, and taking care to provide for it abundant drainage and rough fibrous peat soil with very fibrous loam, two parts of the former to one of the latter. When the plant is growing freely water abundantly. The shoots not elongating after they have advanced to 4 or 5 inches may be the result of dryness at the roots, accompanied with a dry atmosphere. There will be less danger of the plant suffering from dryness on the shady side of the house. From the present time to January is a good season to remove the plant.

LAYERING CLEMATIS (F. J.).—You may now layer any shoots of this class of plants, making an incision at or just below a joint, and about halfway through the shoot, layering in the soil and securing with a peg. It will not be until this time twelve months that the shoot so layered may be detached from the parent plant. Firm young shoots are best.

CONCRETE BENEATH VINE BORDER (J. D.).—A layer of stones, brickbats, shells, or clinkers, 6 inches deep, to form a dry bottom; a layer of chalk or lime in the proportion of 1 to 10 of the stones or other foundation, and well rammed to the thickness of 3 inches; over this half an inch of gravel and lime, or fine chalk; water and ram well again.

VINES FOR GREENHOUSE (Rev. George S.).—If you have not Vines, it is likely you would have climbers, and the one is not more injurious than the other; in fact, Vines are not so injurious as climbers, from the fact of their being less in winter. Either may be injurious or useful, just as they are planted so closely as to cover the roof with foliage and cause too much shade for the growth of plants beneath, or at a good distance apart so as to only partially cover the roof, and so afford in summer an agreeable shade. If you have no other house for Grapes we should advise them, but not planted more closely than 4 feet apart, which will give you six Vines, they being planted along the front, the two end Vines 2 feet from each end. Had your greenhouse front wall been on arches we should have planted them inside, and had the border partly within and partly outside the house. Without the wall on arches we should plant the Vines outside, and introduce them through a hole for each in the brickwork, unless you will have holes made in the wall 2 feet wide, leaving a 14-inch pillar between, and putting in an arch over the 2-feet space to support the sill, which the centre of the arch may be just under; and in that case we should plant inside at 9 inches or a foot from the front wall, training the canes 15 inches or 16 inches from the glass, and up the roof. We should have two Black Hamburg, two Buckland Sweetwater, one Trentham Black, and one Foster's White Seedling.

GRAPES MILDEWING (M. J.).—As the Vines and Grapes mildew every year, there is something radically wrong either with the border or the ventilation of the house. Is the bor. ever well drained? See to it, and if water lodge remove it by drainage without delay. If the house is ill-ventilated have the ventilation put right before another season. It is not mature the border requires, mildew chiefly showing itself on Vines growing in soil which is too moist and rich. A top-dressing of equal proportions of turfy loam and half-decayed stable manure would be good, putting it on about 3 inches thick and incorporating it with the soil of the border to a depth that does not interfere

with the roots. You may also add a bushel per square rod of half-inch bones, mixing with the surface soil. When the Vines are pruned strip the rods, &c. of the loose bark, and dress them with a composition of soft soap, 1 lb. to a gallon of tobacco juice, which may be had of any druggist, and add sulphur vivum sufficient to bring it to the consistency of paint or cream. With this composition dress every part of the Vines, brushing it well into every angle and crevice, and taking care not to rub-out the Vine eyes. Keep a strict watch next season for the appearance of the mildew, and upon its first appearance dust the affected parts with flowers of sulphur, and repeat the application as may be necessary, admitting air freely. We trust you will have better success another year.

GRAPES VARYING IN SIZE (A. B. P.).—Not knowing any of the circumstances we can only express, as our opinion, that deficient root-action and insufficient thinning of the bunches occasion the defect. The only merit of the Gros Colman is the large size of the berries. Their want of colour may arise from defective root-action. In each case a better supply of moisture to the roots, and a little weak liquid manure, would be remedial.

PEARS (J. F.).—Soldat Laboureur is the same as Beurré d'Arenberg. Olivier de Serres is a good very late Pear. All the others are of no account on this side of the Channel. You will find them all described in the new edition of the "Fruit Manual," which will appear in the course of a few weeks.

COPING FOR PEACH WALL (F. L. G. C.).—At the under side of the stone or other coping it would be well to arrange for a protective coping for the trees in spring. A coping of 11 inches in width is good; or two 1-inch flooring-boards 7 inches wide, tongued and grooved; and in joining them together, if you brush hot pitch into the groove and upon the tongue you will have a rainproof joint. Across the boards, at every 3 or 4 feet, you will need to nail a cross piece $\frac{1}{2}$ inches wide to keep the boards from warping. Instead of two 7-inch you may have two 9-inch boards joined together; and you will have a 14-inch or 18-inch wooden temporary coping, just as you employ the different width of boards. To support the wooden coping you will require iron brackets. We have found none so handy as the following:—Fig. 109 is

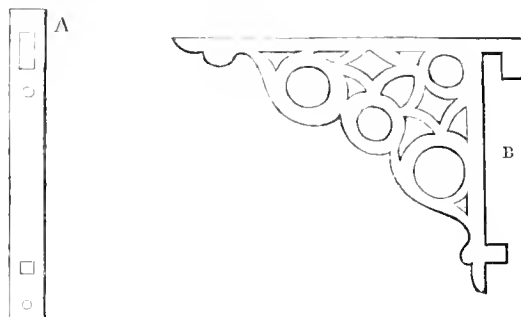


Fig. 109.

an illustration of it. Fix to the face of the wall pieces of iron $\frac{1}{2}$ inch by half an inch, and 13 inches in length, with a square hole at the top $\frac{1}{2}$ inch by three-quarters of an inch, and another of half an inch, 9 inches from the top hole, with two holes for bolts to drive into the wall. The plate will on the face have the appearance of A, fig. 109. The plate should be let into the under side of the coping up to the top of the upper square hole, and before driving-in the bolts a space an inch longer and the same size in other respects as the upper hole must be cut out of the face of the wall $\frac{1}{2}$ inch deep, opposite to where the plate is to be fixed. The distance apart ought not to exceed 6 feet. Wrought iron is the most suitable material, and the plates should be well secured by the bolts. These plates are to remain permanently fixed in the wall. The brackets are of cast iron, and though they are not different in pattern from those for shelves, instead of screw-holes they have at the top a lug $\frac{1}{2}$ inch long one way, and $\frac{1}{2}$ inch the other, and a stud at the bottom which fits the lower square hole in the plate. The use of the lugs will be seen on reference to B. To fix them, all we have to do is to put the top lug through the top hole in the plate and let it drop; it will hang by the lug, and cannot by any possibility fall out, and the bottom lug drops into the lower square hole in the plate. The coping boards are then put on, and will fit exactly beneath the coping, and having an incline outwards, the water will drop clear of the trees. A screw will keep the boards from being dislodged, a hole being at the end of the bracket that is within an inch of the end. The coping boards should have a coat of boiling oil tar when dry, or of black varnish, and will last many years, they being put on when the first blossom opens, and they may remain on permanently up to June. They may then be removed, be replaced when the fruit commences to ripen, and be left on until the leaves fall, taken off again then, and remain off until the blossom is expanding in spring. In addition to the coping boards you will require a canvas or other screen to protect the blossom, young fruit, and tender foliage in spring from frost. It may be fixed to the outer edge of the coping boards, or made to move backwards and forwards by having an iron rod and rings, taking care to secure it against winds.

GARDEN FRAMES (A. C. K.).—A one-light frame may be about 4½ feet in width from back to front, and 3 feet 6 inches the other way; 15 or 18 inches high in the back, and 9 in front, with a glass sash or light, made to fit the top completely, to slide up and down and move away occasionally. A two-light frame may be 7 feet long, 4½ wide, and 15 or 18 inches high in the back, with bars reaching from it at top to the front, serving both to strengthen the frame and help to support the lights; the two lights to be each 3 feet 6 inches wide, made to fit the top of the frame exactly. A three-light frame should be 10 feet 6 inches long, 4½ wide, and from 18 inches to 2 feet high in the back, and from 9 to 12 or 15 inches in front, observing that those designed principally for the culture of Melons may be rather deeper than for Cucumbers, because they generally require a greater depth of mould or earth on the beds, though frames 18 or 20 inches in the back, and from 9 to 12 in front, are often made to serve occasionally both for Cucumbers and Melons. Each frame should have two cross bars, ranging from the top of the back to that of the front, at 3 feet 6 inches distance, to strengthen the frame and support the lights; and the three lights should be each 3 feet 6 inches wide, the

whole together being made to fit the top of the frame exactly every way in length and width. The other subjects you mention will be duly noticed.

GLASS FOR ROOF OF INTERMEDIATE PLANT HOUSE (H.).—Hartley's patent rough plate glass, which we presume is the same as "rolled sheet," will answer admirably for the roof, and will lessen the necessity for shading; in fact, enable you for flowering plants to dispense with it.

GAS STOVES (T. S. C.).—We believe that for small glazed structures gas-heating is as economical as any other mode, and for an amateur by far the least troublesome. Write to the makers who advertise in our columns, and tell them what you need.

HEATING BY GAS (Subscriber).—We heated a small conservatory by means of a copper boiler fixed away from the conservatory and a 3-inch iron flow and return pipe, the flow proceeding from the top of the boiler, and the return joining the boiler near its bottom. Anyone who manufactured such apparatus should be able to erect it. See a letter in another column; it is written by a gentleman's gardener.

CULTURE OF FRENCH MELONS (C. D.).—French Melons only differ from the kinds grown in this country in being larger and inferior in flavour. The kind you have, the "Rock," is a very large, very ugly, and very inferior Melon, and has been in cultivation in this country more than a century. You will succeed with them in frames or pits heated by fermenting materials, for culture in which instructions have been frequently given in this Journal from time to time. The best Melon for an amateur is Little Heath, which has a hardy constitution, and may be grown in a frame with very little aid from artificial heat. It is also of good size. Superior kinds for flavour are Read's Scarlet-fleshed and Meredith's Cashmere, but they require heat.

SOIL FOR FOREST TREES AND SHRUBS (H.).—The digging has well prepared for planting, and we should not apply manure of any kind until the spring. Give a top-dressing of the dissolved bones when growth commences.

CUCUMBERS (C. S.).—We cannot insert high testimonials from anonymous correspondents.

PLANE TREE (R. E. H.).—This tree ought to succeed on the outskirts of Liverpool in such a situation as you name.

WALNUTS (S. C.).—The unallured proverb that a Walnut tree is one of the three examples of the benefit of thrashing, is, like the other two, erroneous. Walnuts are best allowed to remain on the tree until they fall when the branches are shaken. If your trees have declined in vigour, spread some manure on the surface 2 or 3 feet from the stem, and keep the surface mulched throughout the summer.

CONVERTING MELON HOUSE INTO VINERY (J. G. B.).—Your house will be suitable for Vines, and need not be altered in any way. The sides and ends being of glass would in no wise assist the Grapes in colouring, the house being well ventilated at the roof. The border should be at the low side of the house, and if you could arrange to have the Vines planted inside, with the front wall of the house on arches, so as to admit the roots to pass from the inside to the outside border, all the better. If you could make but a 3-foot border inside it would be better than having them in an outside border and the Vines introduced through a hole in the wall. Keep the border well above ground so as to have it well drained. The pipes will probably interfere with your having an inside border; if not, by all means have it, and plant the Vines 1 foot from the wall, training the Vines 15 or 16 inches from the glass. You will be able to accommodate six Vines planted 3 feet 3 inches apart, planting 18 inches from each end. The kinds we advise are three Black Hamburgs, two Buckland Sweetwater, and one Foster's Seedling.

GRAFTING HOLLIES (Ignorant).—This is not the time of year to graft Hollies. March and April is the proper time, working them outside by the usual process of whip or tongue-grafting and near the ground, so that after claying them they may have earth placed against them, leaving only the leaves of the graft bare. It is not necessary to operate upon them under glass. If the season be a forward one, the last fortnight of March, or if a late one the early part of April, noting when they are swelling their buds, and then grafting before they have advanced. The grafts must be shoots of the last summer's growth, the stiff ones preferably to the thin and weak. Any failures may be made good by budding in July.

FOLIAGE TO ACCOMPANY FLOWERS (A. B.).—There is often considerable difficulty in procuring green material for flowers in spring, as the young green growths of most plants are too tender for the purpose, so soon fading or shrivelling in a cut state out of water. We have found few things more enduring than the common kinds of hardy Ferns, as Polypodium vulgare, Polystichum aculeatum, Blechnum Spicatum, and the common Lady Fern (Atyrium Filix-femina), and Lastrea dilatata, and such others of the free-growing kinds grown in heat until full-sized, and then placed in a cooler house to harden are admirable. The beautiful Adiantum assimile placed in a warm house in February or earlier, and when a good growth has been made, the fronds full-sized placed in a greenhouse to harden. A. cuneatum similarly treated is even better. Spirea japonica leaves are also good, as is also Lily of the Valley leaves; whilst for fine cut foliage what is there to equal the Carrot? Pot a number of roots with their crowns just above the surface, keeping only moist until growing freely, and when the leaves are as large as you wish, remove to a cool house.

MALVA CAPITATA.—"E. T. H." wishes to know where he can obtain seeds of this species.

FUNGUS ON PEAR LEAVES (A. B. E. D.).—The Fungus is Rostelia cancellata. You should at once burn all the infected leaves, or your Pear trees will suffer. If too late this year, pick all the bud leaves next year as soon as they show symptoms of the disease, and on no account let them remain under the trees.—M. J. B.

FRUIT (S. M. W.).—We have no more specimens to name. The Aromatic Russet and Pine Apple Russet are distinct varieties. The Hollandbury Apple is useful from November to January. Brown Bourne Pear is usually ripe this month. Medlars are fit for gathering when they part easily from the spray.

SPIRÆA (W. H.).—It is certainly not a Spiræa, but we cannot identify it from a leaf.

MARIE LOUISE PEAR (G. A. B. Louth).—After the leaves are off make a solution of Gishurst compound in the proportion of 8 ozs. to the gallon of water, and wash the tree. Do this again in the spring, and you will get rid of the mussel scale with which the tree is infested.

OPENINGS FOR ROOTS IN FRONT WALL OF PEACH HOUSE (A. H. Lemon).—Your gardener is quite right. The top of the opening should be 6 inches below the surface of the ground; the reason for this being, that if the roots find their way out there they will be more likely to remain near the

surface of the border outside. At the same time we do not think it necessary to alter the arches, as it would incur considerable expense without a corresponding advantage being gained by it. If the space in the wall is filled with loam, and the under surface of the border is as low or lower than the under part of the opening, the depth of 18 inches would be no bar to the roots finding their way outside in quantity.

PRICE FOR FOWLS' DUNG (E. B. T.).—We are quite unable to say what is the value of fowl manure. We should think it very cheap at £5 the ton. We have tried it with flowers, especially Roses, mixed with an equal weight of earth. The result was most satisfactory. We tried it for Oats. It produced straw more than 7 feet high, and as large as a lady's little finger. We manured for Wheat with it this year on light land, and the drought caused it to be a failure.

NIGHT SOIL FOR FLOWER BEDS AND LAWNS (J. W. B.).—As it is thoroughly decomposed, by which we presume it is old, if mixed with an equal quantity of soil, it may be applied as a dressing to the flower beds an inch thick, mixing it thoroughly with the soil of the beds to a depth of 9 inches or a foot. For the lawn it should be thoroughly mixed with six times its bulk of soil, and laid in a heap, turning it over at least once during the winter in dry frosty weather, and be applied to the lawn in February or early in March, giving a coating all over about a quarter of an inch deep if the growth of the grass is very poor, or only half the thickness, or an eighth of an inch, if not very poor. We should give the lawn a thorough scratching with an iron rake if it is mossy, before applying the compost, and early in April again rake it, and if thin of grass sow over it 8 lbs. White Clover, 4 lbs. Suckling Clover, 8 lbs. Crested Dog's-tail Grass (Cynosurus cristatus), and 4 lbs. each Hard Fescue (Festuca duriuscula), and Evergreen Meadow Grass (Poa nemoralis sempervirens), in mixture for one acre. Roll well afterwards, and you will have a fine lawn.

INSECTS (James Bow).—The black insects on the Spruce Fir tree are the Aphid Laricis commonly found on the Larch. If possible, it would be advisable to sweep off the insects from the single tree attacked to prevent them spreading to other trees.—I. O. W.

NAMES OF FRUITS (Subscriber).—Pears: 1, Thompson's; 2, Nouveau Poiteau; 3, Jersey Gratioli. Apples: 4, Scarlet Pearmain; 5, Autumn Pearmain; 6, Alfriston. (Boston Sp.)—1, Brown Bourne; 2, Bergamotte Calotte; 3, Paraisse d'Autonne; 4, Bourne d'Aremberg. (J. B.)—1, Duc d'Anjou; 2, Red Doyenne; 4, Bourne Superfine. (J. W. K.)—It was impossible to distinguish your Dauson, for it was completely smashed in coming through the post. (H. P.)—1, Jersey Gratioli; 2, Urbaniste; 3, Louise Bonne of Jersey; 5, Aston Town; 6, Belle de Noël. (A. F. E.)—1, Comte de Lamy; 2, Louise Bonne of Jersey; 3, Hacon's Incomparable; 4, Bourne Del; 5, Bourne de Capinmont; 6, Hampden's Bergamot. The Apple is not known. (L. J. B.)—1, Doyenne du Comice; 2, Lewis's Incomparable; 3, St. Michel d'Archange. (E. M.)—1, Seckle; 2, Orange Mandarin; 3, Comte de Lamy. (G. McG.)—1, Winter Quoining; 2, not known; 3, Robinson's Pippin. (E. L. Highgate)—1, Cambridge Pippin; 2, Northern Greening; 3 is very much like No. 2. (H. Swift)—Apples: 2, Duck's Bill; 3, Hall Door; 4, Winter Greening; 5, Beauty of Kent; 6, Golden Noble; 7, Court of Wick; 10, Fearo's Pippin; 11, Lord's Pearmain. Pears: 1, Bourne de France; 2, Bourne Del. (R. R. Garneth)—Apples: 1, Hutton Square; 2, Winter Greening; 3, King of the Pippins. Pears: 1, King Edward's; 2, Vicar of Winkfield.

NAMES OF PLANTS (W. B.).—6, Oneidum Wraye or O. bifolium. The Begonias were too withered, and the Conifer unnameable from the scraps sent; 1 may be Abies alba. (Annie).—1, Cornella Emerus; 2, Lobelia polyphylla? specimen very bad; 3, Chelone glabra. (W. B. P.)—1 and 4, Both Begonias, but we cannot determine the species. Ferns next week. (A. F. E.)—Cytisastera Poblana, Nes (Justicia carnea, Ldl.). (J. B.).—Alnus glutinosa lacinata, or Jagged-leaved Alder. (B. K.).—Poa annua.

POULTRY, BEE, AND PIGEON CHRONICLE.

THE POULTRY-KEEPER.—No. 24.

CUCKOO COCHIN-CHINA.

No variety is more curious really than this. It is marked uniformly like the Guldrea, and it is doubtless the issue of the Buff Cochinchina, or the Black or White, but more often of the Black.

The cocks are generally of two distinct plumages, one with grey Cuckoo feathers, and with hackle, shoulders, and lance-shaped feathers of a good straw colour, with spots the whole length of the feather. The other is entirely grey Cuckoo. If these last are not the richest they are certainly the purest. Referring to the Bredas, Guldrea, or Breda Cuckoo, the feathers will be found to resemble those which form the ground of the Guldrea plumage, and identically the same as that which forms the plumage of the Cuckoo Cochinchina cock and hen.

The marking of the feather is the same over the entire hen, neat and scale-formed. It is the same with the cocks, except that the feathers of the hackle, the shoulders, and the lance-shaped feathers are entirely speckled, and that in the large and small sickles the marks are in number and size in proportion to the length of the feathers.

GENERAL CONSIDERATIONS OF COCHIN-CHINAS.

The first birds I saw in France were those brought in by Admiral Cecil, and came really from Cochinchina, and do not at all resemble those we now know, which have more weight, are slightly different in form, and which came from Shanghai, the place probably where they originally were obtained. They have been crossed afterwards with bad analogous varieties. Nothing is more erroneous than the opinion as to their delicacy of temperament, or the difficulty of making them reproduce, or the impossibility of their getting acclimatised. With regard to the care the early chickens require brought-up in cold or rainy weather, it is no more than is required by the chickens of all

other varieties, except that the Cochins require more at the time of moulting the down; and to cramp, to which several other varieties are subject, and which is generally caused by the damp and cold in a yard badly kept-up, or by a run miry in winter. With the exception of these two cases, for which a remedy can be obtained, there does not exist an indigenous race of which the birds are so adapted for the homestead, or which resist better the different causes that interfere with their growth. If it has been wished to raise a great number of chickens in a confined space, which is soon infected, the breeders have not failed to attribute the failures to original delicacy what should be attributed to the ignorance of the raiser. I firmly maintain that all good breeders will agree that after the Brahma, which is nothing really but a variety of the Shanghai, this is the most hardy, and that by crossing it imparts to our delicate species a great part of its hardiness.

The Cochins are not as fierce and as great a fighter as many others, yet it is not the less a brave combatant, especially if one of those newly imported. The hen even, which looks so gentle, fights with fury all new comers. The variety is very sedentary, does not plunder nor devastate gardens, and a very low barrier protects these sufficiently. A cock is good for reproduction when he has not any known maladies till four, or five, and six years old, and the hen is very productive till three or four years old. When the cock has reached the weight of 9½ lbs. the first year, the hens that of 6½ lbs. the first year and are of a perfect form, they have the merit making them preferable to other varieties, and that is the rapid increase in weight joined always to an excellent form, but to judge of the real value of weight it must be what they acquire the first year.

BRIGHTON POULTRY SHOW.

This annual Show was held at Brighton on the 17th, 19th, and 20th inst., being moved from Lewes, where it was held last year. We should think and hope the funds of the Society were enriched by this move, for Brighton is just now so full of visitors, and the Poultry Show made a pleasant change when the Pier, and the Aquarium, and the Pavilion, and all the Brighton sights had been done. We believe the Show being held at Brighton brought many exhibitors themselves as well as their birds, many seizing on the opportunity of seeing the Aquarium, not one, maybe, recognising for a minute any stone of that fairy-like abode of the fishes as belonging formerly to one of London's great bridges. The Show was held in the Corn Exchange—a room well adapted for an exhibition. It held all the 907 pens comfortably, and would hold another three or four hundred more. The arrangements were capital, Mr. Billett being there with all his staff, and the pens were in two tiers, and showed the birds off well. The room was brilliantly light, and in the evening the gas department was well attended to. The birds were fed on Spratt's food, and good wheat and barley. We hope the Show has paid well. Last year we fear Mr. Lenny dropped a lot of money over the Show. He certainly is a most hospitable Secretary, for he gave a most *recherché* spread, and asked most of the exhibitors. Among the company we noticed the Mayor of Brighton, Rev. G. Hodson, Hon. H. Sugden, Rev. C. C. Ewbank, Mr. Tegetmeier, Mr. Percivall, Mr. J. Martin, Mr. S. Fielding, Capt. Coleridge, Mr. Willmore, Mr. Billett, Mr. Woodgate, representatives of most of the Sussex press, &c. After luncheon several toasts were proposed and speeches followed after, when all adjourned to the Exhibition, and we commenced to criticise the Dorkings, which came first in the catalogue.

There were eleven pens of *Dorkings* in one class of any colour. The quality was very fair, but we have seen better birds at these southern shows. The first were nice chickens, but they would not bear much better company. Second was the pen, or one of the birds was, we think, which won at Tunbridge Wells; they were a nice-coloured pair. Third also good. Highly commended (Turnour) a good pair of chickens.

Brahmas, Dark, came sixteen pens strong. We did not think them as a class so good as the last few shows we have attended. The cup for the first three classes went to Creeting. They were a nice pen, and looked capitally. Second, nice pair of chickens. Third were a very young pair. There was another pen or two we liked almost as well, still it was a promising pair. Pen 21 (Leno) was empty. Highly commended (Harvey) a well-pencilled pullet. *Brahmas*, Light, were a strong class, thirty pens or more. The first were closely pressed by second. Had the pullet in latter pen a better comb we should have given them first, though the first cockerel was more matured rather than the second. Third also a good pullet. Highly commended (Pitt) 48, a young but most promising pullet with an unusually nice cockerel.

Cochins, Buff, only four entries! Surely it would be worth anyone's while to take this variety up if only for the southern shows. Nice Buff chickens first, good Cinnamons second, and rather a poor pair of Buffs third, which were, however, soon claimed for a couple of sovereigns. *Cochins*, Any other variety, a good class. Whites won first, the cockerel a large bird and

well developed, with a good White pullet. Second, grand *Partridges*, the pullet exquisitely pencilled, and the cockerel a good shape and deep black. They were rather small, their only fault. Third also good chickens, well pencilled and feathered. Highly commended (Warde) very young but good Whites.

Game were good classes. First smart Reds, well shown. Third a nice cockerel. In the next class a good Duckwing cockerel won with a nicely-coloured pullet. Second and third good Piles.

Hamburgs were two good classes. In Pencilled the Duke of Sutherland won with a good pair of Silvers, the cockerel especially good. Second good coloured birds, and the third was a smart pen. Highly commended (Maynard) a good cockerel; the pullet's pencilling not quite distinct enough. In the Spangled class the Duke got the cup, and it was well won. The cockerel was a picture, his comb A1, and not showing the trace of steel. His spangling was very fine also. We thought this pen cheap to an exhibitor of this variety at £12 12s. Second and third good birds, and of fine quality, with not much to choose between them.

Spanish a good class; the first chickens the best we have seen this season so far; we shall expect to hear they were claimed at catalogue price, £10 10s. Second also promising, and third too, but the latter were young by the others.

Polish a capital lot. First and second wonderful markings and crests; third good, but we liked pen 123, highly commended (Adkins), as well almost. We were sorry to see Mr. Hinton's Malays in his Polish pen, and his Polands in the Malay pen. We tried hard to find the baskets to see if we could trace how the mistake arose, but were unsuccessful.

French a beautiful class. Mr. Dring's Houdan chickens, which were first, were good in colour and size; second good Houdans; and third a fine pair of Crève chickens; highly commended (Greenhill) also good Crève chickens.

The Variety class was one of those medleys we detest—every conceivable variety. The Judges cannot hope to please all here. It is next to impossible in a good class to weigh one variety's merits against another's; but, like the brook, we suppose these classes will go on for ever—certainly as long as committees are so shortsighted as not to divide-up classes more. Black Hamburgs won first and second. If we could take one bird from each pen we could make a rattling pair. Third Malays, large and brilliant in colour. Good Sultans, Silkies, &c., were highly commended.

Game Bantams were good. The first Reds, good in style and colour; and in the next class Duckwings and Piles won the prizes.

In the Bantam Variety class Gold Sebrights were first, a trifle large, but nicely laced; second good coloured Blacks; third small White-booted; highly commended (Gedney) good coloured Cuckoos.

The Sussex class was not so good as we saw last year at Lewes. Dorkings, Dark and Light Brahmas, won in the order named.

The Sale classes were large, and many birds changed hands.

Ducks were good classes. We never like to see Rouens and Aylesburys in one class. The first and third prizes went to good pens of the latter, heavy Rouens taking second. In the Variety class brilliant Blacks first; fancy Ducks second and third; highly commended (Kelleway) good Blacks.

Mr. John Martin judged all the poultry, and his awards gave most general satisfaction. We never heard less grumbling, even among the disappointed ones. Mr. Percivall judged the Pigeons, and he must have had a difficult job. The quality was unusually good. We liked one or two Carriers and Antwerps better than the winners, but in other classes the right birds seemed to win. There was a point cup which was won by Mr. Vander Meersch. We give full awards below.

DORKINGS—*Chickens*.—1, G. Ellis, Betchworth, Reigate. 2, H. Humphrey, Ashington. 3, Rev. H. F. Hamilton, Chard. *he*, Viscount Turnour, Petworth; Rev. E. Burham, Berkhamstead; R. Cheesman, Westwell, Ashted.

BRAHMAS—*Dark—Chickens*.—1 and Cup, H. Lingwood, Creeting, Needham Market. 2, P. Ogilvie, Hambledon. 3, J. Long, Bromley Common. *he*, W. W. Lyne, Shoreham; J. Harvey, jun., Thringington, Canterbury.

Light—Chickens.—1, H. Lingwood. 2, M. Leno, Markvate Street, Dunstable. 3, T. A. Dean, Marden. *he*, H. Stead, Tunbridge Wells; H. Treacher, Oatlands; S. Pitt, Ore, Hastings; G. & H. Smith, Bath; C. Woolgar, Bramber; C. E. Horsfall, Liverpool; J. Long; S. Pitt; H. M. Maynard, Ryde, Isle of Wight; W. Pearce, West Horsley.

COCHINS—*Cinnamon or Buff—Chickens*.—1, C. H. Matthews, Locks. 2, J. L. Nash, Spongthorn, Ipswich. 3, F. Ogilvie. *Any other variety—Chickens*.—1, R. S. Woodgate, Pembury, Tunbridge Wells. 2, Capt. F. G. Coleridge, Twyford. 3, C. H. Matthews. *he*, Mrs. E. Fryor, Welwyn; Rev. A. W. Waide, Uckfield; R. S. Woodgate. *c*, J. A. Sleep, London.

GAME—*Black and other Reds—Chickens*.—1, H. E. Martin, Fakenham. 2, G. Bentley, Rickmansworth. 3, W. W. Pyne. *he*, J. H. Levett, Brighton; E. Wilkinson, Manchester; W. Foster, Deal. *Any other variety—Chickens*.—1 and Cup, J. W. Fitch, Romford. 2, W. Foster. 3, H. Ritchie, Tunbridge Wells. *he*, G. H. Fitzherbert, Sevenoaks.

HAMBURG—*Pencilled—Chickens*.—1, Duke of Sutherland, Stoke-on-Trent. 2, T. & W. Pawcett, Baldon. 3, Mrs. J. M. Rolla, Monmouth. *he*, J. Long; H. M. Maynard; E. T. Foakes, Tunbridge Wells; Miss M. Bryant, London. **Spangled—Chickens**.—1 and Cup, Duke of Sutherland. 2, Mrs. J. M. Rolla. 3, J. Long. *c*, J. Carr, Swansea.

SPANISH—Chickens.—1, T. Boulter, Clerkenwell. 2, H. Brown, Putney Heath. 3, H. Wilkinson, Ebury. *he*, J. Gliddon, Bristol. *c*, A. Bentley, Rickmansworth; F. H. Le Suer, Jersey.

POLISH—Chickens.—1, 2, and *he*, G. C. Adkins, Lightwoods, Birmingham. 3, T. Dean, Keighley. *c*, J. Marles, Brighton.

FRENCH—Chickens.—1 and *c*, W. Dring, Faversham. 2, J. W. Moyle, Becken-

ham. 3, Rev. C. C. Ewhank, Biggleswade, hc, B. D. Greenhill, Panton; G. W. Hibbert, Godley, Hyde.

ANY OTHER VARIETY EXCEPT BANTAMS.—*Chickens*.—1, Duke of Sutherland, 2, J. Long, 3, S. Elliott, jun., Liskeard, hc, F. Harding, Walthamstow; Rev. A. G. Brooke, Shrewsbury; Miss M. E. Croad, Durrington; J. P. Poyer, Hastings; R. S. S. Woodgate; H. Feast, Swansea; A. Kitchen, Dunsdale.

GAME BANTAMS.—*Black and other Reds*.—*Chickens*.—1, T. W. Anna, Clapham, 2, R. B. Smith, Townsend, 3, V. Sandford, Norwood, hc, J. Long; C. W. Gedney, Bromley, c, W. Bontcher, Notting Hill (2); Rev. E. J. Tideman, Brentwood. *Any other variety*.—*Chickens*.—1, R. Brownlie, 2, J. Long, 3, C. W. Gedney.

BANTAMS.—*Chickens*.—1 and Cup, M. Leno, 2, R. H. Ashton, Mottram, 3, R. S. S. Woodgate, hc, J. Longe, Ipswich; C. W. Gedney, c, H. Feast.

SUSSEX CLASS.—*Chickens*.—1, Viscount Tournour, 2, W. Greenfield, Worthing, 3, W. E. Edgill, Frant.

ANY VARIETY.—*Cock or Cock*.—1, M. Leno, 2, T. W. Fawcett, 3, J. Marles, 4, T. J. Sattmarsh, Chelmsford, hc, P. Ogilvie (2); J. H. Pickles, Birkdale; J. Bradshaw, Cranleigh; Duke of Sutherland; P. Luck, Eastbourne; Rev. C. C. Ewhank; J. P. Poyer, c, P. Ogilvie, *Pair of Hens or Pullets*.—1, H. Ritchie, 2 and 4, P. Ogilvie, 3, A. W. Warde, hc, H. Humphries; Rev. J. D. Peake, Chertsey; C. Howell, Ramsey; P. Luck, c, Viscount Tournour; H. Humphries; Rev. T. Cochran, Romford; E. A. Durrant, Ragnaer, Lewes; H. Treacher, c, J. Sattmarsh, hc, T. de Le Sprye, Newton St. Lo; Miss M. Bryant, *Cock and Hen or Chickens*.—1 and Cup, J. H. E. Ivimey, Elmfield, 2, Rev. T. de Le Sprye, 3, Rev. G. L. Farthing, Tottenham, 4, Capt. R. R. Warren, Warfield, hc, Rev. T. Cochran; W. Pine; H. Treacher; P. Ogilvie; Mrs. Wilde, Uckfield; C. Bloodworth, Cheltenham; Duke of Sutherland; T. & W. Fawcett; W. Dring; E. Haywood, Uckfield; V. Sandford, Norwood; C. Howell, c, J. K. Lawther, Tunbridge Wells; W. M. Ward, Brighton; K. A. Belsier, Fenchurst; C. Howell.

DUCKS.—*Forced or Ashbury*.—*Drake or Duck*.—1 and 3, N. Edgill, 2, Duke of Sutherland, hc, J. Harvey, jun.; P. Ogilvie; E. Haywood; F. Warde. *Any other variety*.—1, G. J. Sainsbury, 2, M. Leno, 3, R. Wilkinson, hc, J. W. Kelleway, Isle of Wight; E. Haywood; R. J. Stratfield, Uckfield (2); M. Leno, c, J. W. Kelleway.

PIGEONS.

CARRIERS.—*Cock*.—1, H. Yardley, Birmingham, 2, J. C. Ord, London, 3, W. G. Hammock, Iford, rhc, J. C. Ord, hc, J. Ford, London; W. J. Nichols, London; E. Walker, Leicester. *Hen*.—1, J. H. Ivimey, 2, E. Walker, 3, W. G. Hammock, rhc, H. M. Maynard; R. Cant, London; W. G. Hammock, hc, H. M. Maynard.

CARRIERS.—*Young*.—*Cock or Hen*.—1, W. Massey, Spalding, 2, E. Walker, 3, R. Cant, rhc, J. C. Ord; J. H. Ivimey, Ellisfield, Kington, hc, H. M. Maynard; J. H. Ivimey.

POUTERS.—*Cock or Hen*.—1, 2, and 3, A. A. Vander Meersch, Tooting, rhc, Rev. C. C. Ewhank.

TUMBLERS.—*Cock or Hen*.—1 and 2, W. G. Hammock, 3, H. Yardley, rhc, J. Ford; R. Cant.

BAKES.—*Cock or Hen*.—1, A. A. Vander Meersch, 2, E. Walker, 3, H. M. Maynard, hc, A. A. Vander Meersch; H. M. Maynard (2); W. Massey, hc, A. A. Vander Meersch.

DAKONS.—*Cock or Hen*.—1, 2, and 3, E. Graham, South Birkenhead, rhc, A. A. Vander Meersch; W. Smith, Walton-on-the-Hill; J. Philpott, Clapham; G. Hardy, Shepherd's Bush; A. A. Vander Meersch.

JACOBIANS.—*Cock or Hen*.—1 and 2, A. A. Vander Meersch, 3, G. Hardy, rhc, A. A. Vander Meersch.

FANTAILS.—*Cock or Hen*.—1 and 3, A. A. Vander Meersch, 2, H. M. Maynard, rhc, H. M. Vella, Homerton; J. F. Loversidge, Newark; J. Walker, Newark-on-Trent; A. A. Vander Meersch.

ANTWERPS.—*Short-faced*.—*Cock or Hen*.—1, A. A. Vander Meersch, 2, A. Farndon, Hinchley, 3, W. S. Marsh, Deal, hc, W. S. Marsh; H. Yardley; C. F. Copeman, Solihull.

ANTWERPS.—*Working*.—*Cock or Hen*.—1, W. S. Marsh, 2, A. Bentley, 3, J. J. Sparrow, London, hc, E. F. Wilson, Brighton; J. J. Sparrow; C. L. Sutherland, Colombe; Col. C. F. Hassard, Sheerness.

ANTWERPS.—*Working*.—*Cock or Hen*.—1 and 2, G. J. Lenny, Lewes, 3, E. F. Wilson, hc, E. F. Wilson, Brighton; W. English, Hayward's Heath; G. J. Lenny (2).

ANY OTHER VARIETY.—*Cock or Hen*.—1 and 3, A. A. Vander Meersch, 2, G. Hardy, hc, G. Hardy; R. Wilkinson; G. Holloway, Stroud.

ANY VARIETY.—*Cock or Hen*.—1, J. Ford, 2, H. M. Maynard, 3, J. H. Ivimey, hc, A. Bentley; C. Ward, Lewes; J. Ford.

ANY VARIETY.—*Cock or Hen*.—1, H. M. Maynard, 2, Rev. A. G. Brooke, 3, A. A. Vander Meersch, hc, J. Ford; G. T. F. Pointer, Wood Green (2); E. Durrant, Tunbridge Wells.

CATS.

TABBY OR TABBY AND WHITE.—*Short-haired*.—1, J. Ward, Brighton, 2, Mrs. H. C. Organ, Teidington, Extra 2, G. Ellis, London, 3, Mrs. Thewell, hc, L. Pickett, Brighton; E. Baxter, London; Miss Sidney, Brighton; S. Samway, Southampton.

TORTOISESHELL OR TORTOISESHELL AND WHITE.—*Short-haired*.—1, J. Harvey, 2, J. Strotton, Streatham, 3, P. Luck.

ANY OTHER COLOUR.—*Short-haired*.—1, Mrs. Shackward, 2, Mrs. S. Barnes, Croydon, 3, M. A. Wellmar, hc, S. Samway, c, G. H. Fitzherbert; J. Braden, West Croydon.

ANY VARIETY OR COLOUR.—*Long-haired*.—1, F. J. Goodall, Hanley, 2, — Melison, Brighton, 3, Mrs. Halsey, Blackheath, rhc, Mrs. Lawless, Brighton; Miss A. Garbanati, Highgate Rise; Mrs. H. C. Organ.

LITTER OF KITTENS.—1, Mrs. H. C. Organ, 2, T. Bryce, Havant, 3, J. Poocek, Great Berkhamstead.

CAGE BIRDS.

NORWICH.—*Clear Yellow*.—1, J. Adams, Coventry, 2, J. Garrett, Brighton, 3, E. Orme, Derby, rhc, J. Adams; S. Tomes, Northampton; G. J. Barnesby, Derby; E. Orme; E. W. Lulham, Brighton, hc, J. Garrett; G. J. Barnesby; E. W. Lulham.

NORWICH.—*Clear Buff*.—1 and 3, J. Adams, 2, E. W. Lulham, rhc, G. J. Barnesby (2); S. Tomes; E. Orme; E. W. Lulham, c, J. M. Fellingham, Brighton (2).

NORWICH.—*Any other variety*.—1, J. Adams, 2, G. J. Barnesby, 3, E. W. Lulham, rhc, R. J. Pope, Brighton; J. Adams (2); E. Orme; E. W. Lulham (2). hc, J. Garrett; S. Tomes; G. J. Barnesby; J. M. Fellingham (2); c, J. M. Fellingham (2).

BLON—1 and hc, V. Sandford, Norwood. 2, 3, and rhc, C. D. Carver, Landport.

LIZARD.—1, E. W. Lulham.

MULE.—1, J. Adams, 2 and c, E. W. Lulham, 3, J. Stapleton, jun., Brighton, rhc, J. M. Bowley, Brighton, hc, J. M. Bowley (3); E. W. Lulham.

LINNET OR FINCH.—1 and 3, J. H. Verrall, Lewes, 2 and rhc, E. W. Lulham, hc, R. Sandell, London (2), c, H. Rovington, Frant.

BRITISH BIRDS.—*Any other variety*.—1, O. A. Watts, Brixton, London, 2, R. Sandell, 3, W. H. Smith, rhc, O. A. Watts; E. W. Lulham; J. Pratt, Paddington, Lond; n, F. Warde.

FOREIGN BIRDS.—*Any variety*.—1, W. Joslin, 2 and rhc, E. Sweeting, Sydenham, 3 and c, R. Sandell.

SELLING CLASS.—1 and 2, E. W. Lulham, 3, J. Adams, rhc, J. Tomes; G. J. Barnesby; E. W. Lulham; J. M. Fellingham; J. L. Mosden, Minories, London, hc, G. J. Barnesby; J. M. Bowley; V. Sandford, c, J. M. Fellingham (2); J. Garrett.

JUDGES.—*Poultry*: Mr. J. Martin. *Pigeons*: Mr. J. Percival. *Cats*: Mr. G. Billet. *Cage Birds*: Mr. A. Willmore.

MONMOUTH POULTRY SHOW.

ALL the arrangements at this Show were well carried out. The *Dorkings* good; a nice pen of Silver-Greys first. The first young Buff *Cochins* were good. Dark and Light *Brahmas* good; but some of the pens badly matched. *French* and *Polands* contained good birds. *Spanish*, first prize withheld, and the second and third-prize birds were not worth the carriage home. *Hamburghs* very good, as the names will show; but there should be a class for each variety. Silvers were first in each class, Golds second. The prize birds in the *Game* class were good; first Brown Reds; second Black Reds; third Piles. In the Any other variety class a grand pen of Black *Hamburghs* were first; to this pen also was awarded the extra prize for the best pen in the Show. *Bantams* were all in one class, and there were some grand birds of all varieties. The first prize went to a sweet little pen of Silver-laced; the second to a nice pen of yellow-legged Piles (the proper colour for the legs of Pile Game); the third to Black Reds, the cock in grand feather, but a little large. There was a nice pen of Blacks, but the hen was deformed.

Aylesbury Ducks good; but the second best pen was thrown out from having one leg marked. *Rouen Ducks* were creditable. Of Ducks, Any other variety, the first prize was given to White Calls; the second to Grey Calls. Mr. Sainsbury sent two pens of Black East Indian, but they arrived too late for competition. *Geese* were grand; and *Turkeys* also very good. In cross-bred fowls and Ducks Mr. Rolls swept the deck with birds of but little merit.

DORKINGS.—*Grey or Coloured*.—1, J. Robinson, Garstang, 2, J. McConnell, Ewas Harold, 3, H. Feast, Swansea.

COCHIN-CHINAS.—1, Mrs. E. Wilkinson, Manchester, 2, H. Feast, 3, R. W. Everett, Mitchellroy.

BRAHMAS.—*Dark*.—1, T. A. Dean, Malden, 2, H. Haddrell, Calne, 3, J. Robinson, Light, 1 and 2, T. A. Dean, 3, J. F. Hartland, Chesham.

SPANISH.—2, H. Feast, 3, J. McConnell.

FRENCH.—1, H. Feast, 2, G. W. Hibbert, Hyde, 3, Miss Mortimer, Rudhall, Ross.

POLANDS.—1, J. Robinson, 2, J. McConnell, 3, H. Feast.

HAMBURGHS.—*Gold or Silver-spangled*.—1, J. Robinson, 2, J. McConnell, 3, T. E. Jones, Wolverhampton. *Gold or Silver-pencilled*.—1 and 2, J. Robinson, Extra 1, J. McConnell, 3, A. F. Faulkner, Thrapstone.

GAME.—1, E. Woodward, Worcester, 2, E. Shaw, Oswestry, 3, H. P. Fowler, Price, Castle Madoc.

ANY OTHER DISTINCT BREED.—1 and Extra, J. Robinson, 2, J. Long, 3, N. J. Ridley, Newbury.

BANTAMS.—1, J. W. Lloyd, Kington, 2, F. Maitland, Worcester, 3, Wingfield and Andrews.

DUCKS.—*Aylesbury*.—1, Mrs. H. J. Bailey, Tenbury, 2, J. Robinson, 3, J. McConnell. *Rouen*.—1, Mrs. H. J. Bailey, 2 and 3, J. A. Lyne, Brynhyfryd. *Any other variety*.—1, Mrs. H. J. Bailey (Call), 2, J. McConnell (Fancy), 3, F. A. Barret, Walford (Black East Indian).

GESE.—1 and 2, Mrs. H. J. Bailey, 3, J. A. Rolls.

TURKEYS.—1, J. A. Lyne, 2, W. Lams, 3, J. A. Rolls.

CROSS-BRED FOWLS.—1 and 2, J. A. Rolls, 3, J. H. Hurd, Diogestow.

CROSS-BRED DUCKS.—2 and 3, J. A. Rolls.

BRADFORD PIGEON SHOW.

THE second Show projected and carried out by a few keen fanciers, at the head of whom were Messrs. Beldon and Hawley, was held in the Odd Fellows' Hall on the 14th and 15th inst. This was by far the largest Show ever held except at the Crystal Palace, there being close upon a thousand entries. Turner's pens were used, and placed three tiers high; for though the room was large and pretty well lighted, yet no room had to be lost to get all in, the consequence being that some were placed a little too high. The management was extremely good, a capital staff of feeders looking well to the wants of the birds.

Pouters were first on the list, and while Mr. Cannan judged these we thought we saw some of the old fever setting in, while first one and then another well-trained bird answered to the call, and certain it is we thought he would never have left them. Cocks, Black and Blue, had twenty entries, first and second going to Blue, and third to a Black, all very fine in shape, long in limb and feather, but the second-prize bird very shy. Hens, Blue and Black—the first Blue in splendid show, fine in limb and feather, but a little faulty in colour, or the cup would have gone here; second a showy Black, and third a Blue. Twelve entries. Cocks any other colour, a grand Yellow first and cup (Fulton); second, Mr. Bryce, Edinburgh; and third, Mr. Horner. Hens, first a splendid White, second Red, and third White.

In *Almonds* the prizes went more to head, beak, and eye than colour, the first and second being somewhat dark. In Any other Short-faces the first was a good Black Mottle, very quickly claimed at £3; second a Red Mottle; and third a Yellow Agate. Mr. Harvey's well known Dun Barb cock won the cup for this section, second Mr. Horner, and third Mr. Clay. And in the next class Mr. Clay was first, and Mr. Fulton second and third. Pen 151, Mr. Stanley's, contained a cock bird, and was disqualified at once; such conduct cannot be sufficiently condemned.

Carriers were good in all classes, though there were some birds left out on account of deformity or illness of one kind or other. In Black cocks the first outdistanced all the rest, although out of feather, the style and carriage, head and beak grand; second Mr. E. Horner with a good young bird; third, Mr. R. Fulton, also very good, most of the others receiving notice. In Any other colour Mr. Fulton showed a marvellous

Dun cock, which was awarded the oil painting for the section, Mr. Horner running very close with a grand Dun cock; third, Mr. Fulton, a younger bird. In Black hens Mr. Yardley won very easily with a grand bird, good in beak and eye-wattle, with capital neck and style.

In the next class Mr. Sefton had very easy win with a heavy-wattled Dun hen; Mr. Horner second; and Mr. Fulton third and very highly commended, the whole class being very good.

In foreign *Owls* first and cup went to a splendid White, second White, and third Blue. Eighteen entries.

Trumpeters very good, and when we say this we can convey no idea of the massive style of feather, size, rose, and feet.

In *Jacobins* Mr. Vander Meersch was very successful, winning two first and one second, the first with a nice Red, very small, although some preferred Mr. Fulton's unnoticed bird. Twenty-seven entries; a grand display.

In the next class a splendid White was first, Blacks being second and third.

Fantails were a grand lot, and the competition keen. First a most perfect bird, small, perfect tail, with high carriage and motion; the second and third-prize birds losing very little, even Mr. Liversedge having to be content with a highly commended.

Dragoons, Blue or Silver, were an immense class either as regards numbers or quality, there being thirty-three entries and seventeen noticed in the list. First a grand Blue, about as perfect as aught we have seen; second Blue, very good; and third Silver. The cup was given to the first-named in this class.

The first in the next class, a Yellow, was really good, the second being a grand Grizzle, a colour, by the way, which does not seem to be quite understood and appreciated; but this bird was the model of a good Dragoon; the third also a Yellow. Twenty-one entries.

Antwerps were a show in themselves, there being nearly ninety entries in four classes, and the competition keen, the cup being awarded to the most perfect specimen we have ever seen in the show pen, a Short-faced Silver Dun in the pink of condition; the second and third Red Chequers, also very good. In hens Mr. Gamon had an easy win with a grand Red Chequer hen, second a Dun, and third Red, many good birds being too long in face. In Long-faced cocks the first was very strong in head, not so good in colour; second better in colour, but not so well filled in head—both Red Chequers; third a good Blue Chequer. In hens a well-known Red Chequer stood first, and was sold at a long price; the second a good Dun; and third Red Chequers.

Next came English *Owls*, and these were a grand display, Mr. Binns being again to the front with a grand Blue cock, and winning the cup also. Forty-two entries, and the regret was that there were not more than three prizes to award.

Long-faced *Tumblers* were good in both classes.

Turbits, Red or Yellow, a marvellous class of thirty-eight birds, the prizes being well awarded. *Turbits*, any other colour, thirty-seven pens. First Black, second Silver, and third Blue, the losers being of such quality as will come to the front in smaller competition.

Nuns very good. A very grand Black hen first, many others of rare quality and marking.

Archangels were grand in colour, but a splendid Yellow Magpie won against these, securing the cup.

In *Swallows* the first was Red, second Black, and third Blue.

In any other variety the first-and-cup was a capital Pigmy Pouter, second a Blondinette, and third a Fairy, the class being very strong and good.

Next came the young classes, and a pretty puzzle they were. The *Pouters*, which contained thirty entries, was a grand display. First a White cock, a model of his kind, in grand show, 19½ by 6½ in limb; second Black, in fine order, 18½ by 7 in limb; third a Blue, not so good in girth or style, but 20 by 6½ in limb, many other birds being very fine, the cup going to the first-named bird. In young *Carriers* the first was a Black of great length of face, large, and stylish; second Dun, long and strong, but a little down-faced; and third a Black with very strong box beak and general good properties. Young *Barbs* moderate, while the young *Dragoons* were a very interesting class, the first-and-cup one of the most perfect Yellows ever seen in a show pen; the second and third Blues. Thirty-three entries. *Antwerps*, Short-faced, forty-six entries, some very promising birds, but many too long, some of which would have been as well in the next class, which was for Long or Medium-faced. In the Variety class the first was a very good Almond cock, second a Silver Owl, and third a Turbit, the class containing thirty entries. There were four Selling classes which contained upwards of a hundred entries, and there were many cheap and good lots which were quickly sold. Mr. Horner won the points' painting by a great number.

Mr. Cannan judged six of the sections, Mr. Hutton judged the remaining eight sections.

POUTERS (Black or Blue).—Cock.—Medal and *vic*, R. Fulton, London. 2, E. Beckwith, Sunderland. 3, E. Horner, Harewood. *hc*, R. W. Bryce, Loanhead, Edinburgh; W. Harvey, Sheffield. *c*, R. W. Bryce, E. Beckwith; F. Gresham, Cheshford; E. Horner. *Hen*.—Medal, W. Harvey. 2, E. Beckwith, 3, E. Horner.

hc, R. W. Bryce (2); J. E. Spence, Bronghty Ferry. *c*, E. Beckwith; F. Gresham.

POUTERS (Any other colour).—Cock.—Cup, R. Fulton. 2, R. W. Bryce. 3, E. Horner. *vic*, E. Beckwith; R. H. Blacklock, Sunderland. *hc*, E. Beckwith; R. Fulton. 2, Foster, Denholme Gate. *c*, R. Fulton, London; A. Wright, Leith. *Hen*.—Medal, R. Fulton. 2, E. Horner. 3, R. Fulton. *vic*, Mrs. Ladd, Caine. *hc*, G. Desner, Driffield; Major J. H. Cryer, Southampton. *c*, Mrs. Ladd; R. H. Blacklock; F. Gresham.

CARRIERS (Black).—Cock.—Medal, H. Yardley, Birmingham. 2, E. Horner. 3, R. Fulton. *vic*, J. Thompson, Bingley; W. Woolley, Hunbury; W. Minson, St. Ives; R. Fulton; P. R. Spencer, Hereford. *hc*, E. Beckwith; W. Sefton, Blackburn (2); E. Mawson, Moor Allerton; Miss F. Seaton, Leeds. *Hen*.—Medal, H. Yardley. 2 and 3, R. Fulton. *vic*, W. Woolley. *hc*, E. Horner (3); W. Minson. *c*, Major J. H. Cryer.

CARRIERS (Any other colour).—Cock.—Painting and 3, R. Fulton. 2, E. Horner. *hc*, W. Sefton; E. T. Dew, Weston-super-Mare; E. Horner. *Hen*.—Medal, W. Sefton. 2, R. Fulton. 3, E. Horner. *vic*, H. Yardley; R. Fulton. *hc*, Major J. H. Cryer; E. Horner.

TUMBLERS (Almond).—Cock or *Hen*.—Medal, E. Horner. 2, H. Yardley. 3, E. Beckwith. *hc*, E. Beckwith; J. Ford, London; E. Beckwith. *c*, H. Verdon, Wavertree; R. Fulton.

TUMBLERS (Short faced, any other variety).—Medal, J. H. Esden, London. 2, A. & W. Silvester, Sheffield. 3, R. Fulton. *hc*, E. Beckwith; J. Ford; H. Verdon; E. Horner (2).

BARS.—Cock.—Cup, W. Harvey, Sheffield. 3, E. Horner. 3, R. Clay, Manchester. *vic*, R. Fulton. *hc*, E. Mawson; R. Fulton. *Hen*.—Medal, R. Clay, Antenshaw. 2 and 3, R. Fulton. *c*, J. W. Townson, Bowdew; E. Horner.

OWLS (Foreign).—Cock or *Hen*.—Cup and *vic*, R. Clay. 2, T. W. Townson. 3, R. Fulton. *hc*, R. W. Bryce. *c*, W. Lumb, Rochdale; J. W. Townson; S. Dransfield.

OWLS (English).—Cock or *Hen*.—Cup, W. Binns. 2, R. Clay. 3, P. H. Jones, Fulham. *vic*, E. Lee, Nantwich. *hc*, W. Sefton; A. N. Dodds; R. Clay (5); J. W. Birtles, Birmingham; J. W. Townson, Bowdew; J. C. Ainsworth. *c*, Ward and Rhodes, Olney; H. Verdon, Wavertree; A. J. Barnes, Gloucester; R. White.

TRUMPETERS.—Medal, W. Harvey. 2, R. Fulton. 3, J. Lederer, Bootle. *hc*, A. A. Vander Meersch, London; E. Horner; R. Fulton. *c*, A. A. Vander Meersch; J. Lederer.

JACOBIANS (Red or Yellow).—Medal, A. A. Vander Meersch. 2, R. W. Bryce. 3, R. Woods, Mansfield. *hc*, J. Thompson, Bingley (2); T. Holt, Bradford; W. Croft, Killinghall. *c*, Rev. O. E. Cresswell, Bagshot; J. Richmond, R. Fulton. *vic*, Major J. H. Cryer and 2, A. A. Vander Meersch. 3, R. Fulton. *c*, E. Horner; A. Heath, Caloe; R. Fulton.

FANTAILS.—Medal, J. Walker, Newark-on-Trent. 2, H. C. Bowman, Higher Broughton, Manchester. 3, H. Simpson, Spalding. *hc*, H. Simpson; T. W. Ainsworth, Houghton Bank; J. Walker; J. F. Liversedge, Newark (3); E. Horner.

DRAGONS (Blue or Silver).—Cup, W. Sefton, Blackburn. 2, W. Markland, Deane, Bolton. 3, *vic*, W. Sefton. *hc*, W. Sefton (2); W. Lumb, Pinner; W. Smith, Watton, Liverpool; W. J. W. Fawcett, Manchester; S. Dronsfield. *hc*, W. Sefton; R. Woods, Mansfield; H. Yardley; R. Clay; W. Gamon, Chester (2); W. Smith. *c*, R. Clay.

DRAGONS (Any other colour).—Medal and 2, F. Graham, Birkenhead. 3, R. Woods. *vic*, F. Graham; W. Sefton. *hc*, R. Woods; R. W. Bryce; H. Bignell, London; J. Murray, Darham; S. A. Whyllie, East Moulsey; R. Fulton. *c*, W. Sefton; R. Woods.

ANTWERPS (Short-faced).—Cock.—Cup, R. Brierley, Fishpool. 2 and 3, W. Gamon. *vic*, J. Deakin, Sheffield. 3, J. Wright, Manchester; H. Yardley; J. Lister, Keighley; W. Gamon (2). *hc*, E. Coates, Burnley; A. Brook, Little Horton; W. Slater, Gravelly Hill; A. Bingham, Manchester. *c*, J. Wright. *Hen*.—Medal and *vic*, W. Gamon. 2, A. Brook, Little Horton. 3, J. Wright. *hc*, T. Jubb, Halifax; H. Gaugh, Wolverhampton; W. Slater; J. Rushworth, Keighley; J. Wright (2); J. Lister, Keighley; W. Gamon. *c*, T. Jubb.

ANTWERPS (Long-faced).—Cock.—Medal, W. Ellis, Jule. 2, J. Lister. 3, H. Jennings, Allerton. *vic*, C. Hopwood, Rochdale; A. N. Dodds, North Shields; H. Bignell, London; J. Murray, Darham; S. A. Whyllie, East Moulsey; R. Fulton. *c*, W. Sefton; R. Woods.

TUMBLERS (Long-faced, Mottles).—Medal, J. G. Orr, Beith. 2 and 3, D. Riddough, jun., Bradford. 3, W. & A. Silvester, Sheffield. *vic*, E. Horner, *hc*, J. Dye; J. G. Orr; E. Horner; W. B. Mapplebeck, jun., Birmingham; W. Harvey.

TUMBLERS (Long-faced, any other colour).—Medal, J. Dye, Hexham. 2, W. A. Hyde, Ashton-under-Lyne. 3, J. Watts. *hc*, T. Charley, Blackburn; A. Baird, Douglas; M. Green; D. Riddough, jun.; E. Horner; W. B. Mapplebeck. *c*, J. Dye; E. Ford.

TURBITS (Red or Yellow).—Medal and 2, W. Croft. 3, E. Horner. *hc*, A. A. Vander Meersch; Rev. O. E. Cresswell (2); T. S. Stephenson, Newbiggin, Beverley; E. Horner (2); H. G. Poole, Bradford; R. Fulton; W. Croft (4). *c*, R. Woods, Mansfield; H. Yardley; C. Anton, York; H. G. Poole, Bradford; J. E. Crofta, Worsop; T. Foster; W. Croft.

TURBITS (Any other colour).—Medal, Rev. O. E. Cresswell. 2, P. H. Jones, Fulham. 2, W. Croft. *hc*, W. Woods (3); P. H. Jones; W. Lumb, Rochdale; T. Foster; T. E. Dew, Weston-super-Mare; W. Croft (5). *c*, T. E. Dew.

NUNS.—Medal, W. Crofts. 2, H. Yardley. 3, E. Horner. *hc*, W. Crofts; J. Richmond.

MAGPIES.—Cup, Miss F. Seaton. 2, A. N. Bryce, Edinburgh. 3, M. Ord, Sedgefield. *hc*, P. H. Jones; H. Jennings; E. Horner (3); C. G. Hitchcock, Oxford. *c*, N. Hill, Edina, Ealing.

ARCHANGELS.—Cock or *Hen*.—Medal, H. W. Webb, Lower Sydenham. 2, J. Bowe, Herts Bay. 3, P. H. Jones. *hc*, R. Woods; E. Horner (2).

SWALLOWS.—Medal and 3, E. Horner. 2, T. Cropper, Bacup. *hc*, T. Foster; E. Horner; J. Watts.

ANY OTHER VARIETY.—Cock or *Hen*.—Painting, Miss F. Seaton. 2, H. Yardley. 3, W. Sefton, Blackburn. *vic*, H. W. Webb. *hc*, C. Anton, York; T. S. Price, Finchley (Silver and Blue Rued); J. Watts; J. E. Crofta; E. Horner; Miss F. Seaton; R. Fulton (Turbiten). *c*, G. E. Sawdon; A. & W. Silvester.

YOUNG BIRDS.

POUTERS.—Painting, Mrs. Ladd. 2, F. Gresham, Sheffield. 3, E. Horner. *vic*, Mrs. Ladd; J. Hairens, Hull. *hc*, E. Beckwith, Sunderland; R. H. Blacklock, Sunderland (2); N. Hill; W. Rutherford, Edinburgh; J. E. Spence; E. Horner; R. Fulton. *c*, T. Duncan, Dalkeith; G. Robinson, Sunderland.

CARRIERS.—Medal, W. Minson. 2, W. Bulmer, Spalding. 3, R. Fulton. *vic*, R. Fulton. *hc*, W. Sefton; Major J. H. Cryer (2); E. Horner (3); C. H. Clarke, Nottingham; P. R. Spencer. *c*, W. Bulmer.

BARS.—Medal, R. Fulton. 2, C. G. G. Gava, Spalding. 3, J. Lister. *hc*, J. Stanley, Blackburn; E. Horner. *c*, Major J. H. Cryer; J. Ashworth, Blackburn.

DRAGONS.—Cup, F. Graham, Birkenhead. 2, E. Horner. 3, R. Woods. *vic*, J. Stanley; R. Fulton. *hc*, T. Charnley, Blackburn; G. E. Sawdon; H. Jennings; W. Gamon; R. Brierley, Fishpool; W. Smith; R. W. Bryce; E. Horner. *c*, W. Sefton, Blackburn; N. Hill; J. Ashworth, Blackburn.

ANTWERPS (Short-faced).—Medal, J. Wright, Manchester. 2, J. Mitchell, Keighley. 3, W. Tomkinson, Burnham. *vic*, J. Barratow, Keighley; J. Mawson. *hc*, J. Smithers, Sheffield; W. Gamon; F. Woodhouse, Blackburn; R. Brierley; E. Coates, Burnley; E. Holdsworth, Wibsey; Jack; Tordoff and Wilkinson, Wibsey; W. Tomkinson. *c*, J. Stanley, Blackburn; J. Ashworth.

ANTWERPS (Any other variety).—Medal, H. Jennings. 2, T. Foster. 3, W. Markland, Deane. *vic*, W. Gamon. *hc*, H. Mitchell, Denholme, Bingley; A. C. Holloway, North Shields.

ANY OTHER VARIETY.—Cup, E. Horner. 2, Major J. H. Cryer. 3, M. S. Temple, Hexham. *vic*, G. E. Sawdon (English Owl); R. Clay (Foreign Owl); R. White; C. Duckworth, Wavertree, Liverpool. *hc*, N. Hill; R. Minnis, jun., Rochdale; R. Wilkison, Guldoford; E. Mawson, Allerton (Blue Owl); E.

Horner (2); R. Fulton (Owl). c. A. J. Barnea, Gloucester (Black Magpie); J. F. Loversidge; J. W. Towns, Bowden (Foreign Owl).

SELLING CLASSES.

PAIRS.—Price not to exceed £3.—Cup, E. Horner (Red Barbs). 2, J. Bailly, jun., London. 3, Rev. E. C. Ewbank, Biggleswade. *hc*, E. Beckwith, Sunderland. D. Kiddiough, jun.; E. Horner, Harewood (2); Miss F. Seanor. c. A. N. Bryce (Fantails); s. A. Whyllie.

SINGLES.—Price not to exceed £2.—Medal, W. Brydone (Barb). 2, R. W. Bryce (Mottled Trumpeter). 3, J. Bailly, jun. *hc*, W. Scotton; J. Lister; Mrs. Ladd (White Pouter). c. G. Cave, Spalding; J. Bailly, jun. (2); L. Allen; Southwark; E. Horner (White Pouter and Duo Barb); Miss F. Seanor. c. F. Graham; W. H. A. Miller, Walsall (Carrier).

PAIRS.—Price not to exceed £3.—Cup, E. Horner. 2, J. Lister; E. Horner (Black Pouters). 3, Rev. E. C. Ewbank; E. Horner. *hc*, W. Binos (Antwerp). *hc*, Wells & Sherrin, Ripon (Black Swallows); C. Auton; J. Lister; W. Brydone, Dunee; J. Watts.

SINGLES.—Price not to exceed £2.—Medal, Miss F. Seanor. 2, Mrs. H. Prickworth, Moulton Marsh. 3, T. Hornman, jun., Ripon (Carrier). *hc*, A. T. Umpleby, Boroughbridge. *hc*, Wells & Sherrin (Blue Carriers); J. Thompson; W. Brydone; T. Hornman, jun., Ripon (Carrier); J. Bailly (2); E. Horner. c. E. Beckwith; A. Smith, York; J. Bailly; G. F. Whitehouse, Birmingham (White Dragon).

JUDGES.—Mr. Cannan, Bradford, and Mr. E. Hutton, Pudsey.

CANARY SHOW AT THE ROYAL PAVILION, BRIGHTON.

This was the twenty-first annual Exhibition of British and foreign cage birds held in the King's Apartments in connection with the Brighton Amateur Canary Show. The past week has certainly been one of note to the "fancy" at Brighton, as much so as the present week at Brighton has been of consequence to the "fancy" in various parts of England, owing to the All England Show of poultry, birds, &c.; but our duty there is to chronicle the points made by the members of the Amicable Society. The birds exhibited were high enough in colour, and sufficiently good in quality and breed to fit the most fastidious fancy of a fancier. The specimens exhibited by Messrs. Pope, Peach, and Adams were really of a first-class stamp, and to the lot of Mr. R. J. Pope (of the eminent firm of Messrs. Pope & Son, of the New Road, Brighton), four silver cups were awarded, Mr. Peach also winning a couple of silver cups, besides numerous prizes to each exhibitor. The Exhibition opened on Tuesday the 13th, and was to continue open until Friday, but owing to the great success attending it, it was continued during the whole of Saturday. Thus there were two bird shows on at one time in the Royal Pavilion, the All England Show taking place in the Corn Exchange. The whole length of the King's Apartments, together with the anteroom, was fitted with rows of benches, the Canaries being placed upon the centre rows. The back part of the Apartments was given up to the exhibition of a fine collection of birds sent, not for competition, by Mr. Dench, of St. James's Street, who exhibited some fine specimens of Virginia Nightingales, Cut-throats, Zebra Finches, Parrots, Cockatoos, Bishop Birds, Piping Bullfinches, &c. The following are the awards:—

NORWICH.—Clear Yellow.—1, R. J. Pope. 2, C. Adams. 3, W. Peach. c. W. Braines. Clear Buff.—1, R. J. Pope. 2, W. Peach. 3, C. Adams. *hc*, W. Braines. c. W. H. Smith. Variegated Yellow.—1, R. J. Pope. 2, C. Adams. 3, P. Amore. Variegated Buff.—1, W. Peach. 2, C. Adams. 3, R. J. Pope. c. W. Braines. Tucked Yellow or Buff.—1, K. J. Pope. 2, C. Adams. 3, R. Peach. c. J. Mountney.

TENNESSEANS.—1, R. J. Pope. 2, C. Adams. 3, W. Peach. *hc*, W. Braines. c. H. Butler.

CINNAMON.—Yellow.—1, W. Peach. 2, R. J. Pope. 3, C. Adams. Buff.—1, R. J. Pope. 2, W. Peach. 3, C. Adams. Variegated.—1, R. J. Pope. 2, W. Peach. 3, C. Adams. *hc*, H. S. Smith.

GREEN.—1, C. Adams. 2, W. Peach.

BRIGHTON FANCY.—1, W. Peach. c. P. Amore.

NORWICH.—Cage of Six Young Clear Yellow.—1, R. J. Pope. 2, C. Adams. Cage of Six Young Clear Buff.—1, R. J. Pope. Cage of Six Young Variegated.—1, J. Heathorne. 2, K. J. Pope. Cage of Six Old Clear and Variegated.—1, Adams. 2, P. Amore.

CINNAMON.—Cage of Six Young.—1, R. J. Pope. 2, J. Heathorne. Cage of Six Young Variegated.—1, W. Peach.

ANY VARIETY.—Cage of Six Old Birds.—1, W. Peach. 2, R. J. Pope. 3, P. Amore.

GOLDFINCH MELE.—Fied.—1, D. Taylor. Plain.—1, D. Taylor. 2, W. Peach. Cage of Six.—1, W. Peach. 2, D. Taylor.

PARROT AND COCKATO.—LEISE.—1, R. J. Pope (Leadbeater). Extra 1 and 3, Mrs. Dench (Crimson Macaw and Rose Cockatoo). 2, Mrs. Bean (King Parrot). *hc*, Mrs. Bailey (Grey Parrot). c. B. Jones (Blue Macaw).

The Judges were Messrs. Wood and Beal.

SNELLS (HELMETS).

This variety has been admired by but few persons this side of the Atlantic. It belongs to the Toy class, and is, therefore, one of the easiest varieties to breed true. It was produced in the first place in that hothed of Toys, Germany, and ranks quite high in that country. And the only persons I have known to be great admirers of it have been Germans, who brought their tastes for plumage with them to this part of the world. It is a contemporary of the Nun and Spot, and evidently descends from the same forefathers; in fact, all the Toys are but modifications of colour upon the ordinary common Pigeon, and anyone familiar with markings can, in a few years, produce Breasters, Magpies, Swallows, Nuns, Snells, &c., at will. A Magpie, for instance, is but a Nun which has transferred the black from the wings to the back and breast; and a Swallow or Snell can be transmogrified into a Snell or Swallow.

Often in one's loft an oddly-marked Pigeon (a sport) will appear. If the marking is sufficiently curious it can be fixed in most cases by judicious selection and pairing of the young of that sport. There is such a tendency for any odd marking to become strong, that very little encouragement settles the question; therefore nothing is easier in the handling of Pigeons than to produce varieties of Toys. The Germans are continually doing this, and as continually allowing them to run out, for the reason that they do not become the fashion. I have seen in my life Nuns, Snells (with and without coloured flights), Spots, Breasters, Moorcaps, Death's Heads, &c., that were produced from the same strain of birds. How do you account for that? Why, just in the same way you have seen Turbits bred from Owls, or *vice versa*, where perhaps the first half dozen young will be various coloured Turbits, caps and all; and the next half dozen Owls, possibly all solid, and without the sign of a cap. The ancient Snell was a white bird with coloured head (scalp), flights, and tail; some were smooth heads, others capped, but when capped they were so like the Nun that it at last became the fashion to have them differ as much as possible, and the caps were prohibited, as were also the coloured flights. Now, therefore, the standard markings are as follows: A white bird with coloured scalp and tail. The line of colour on the head begins at the corner of the beak, passes backward through the centre of the eye, and around the head to the corner of beak opposite to starting point; the upper half of the beak is dark, the lower half white. The division of colour at the tail is a line drawn from the root of the outside tail feathers on each side, crossing the vent. The eyes are pearl, the feet clean; some few are capped or point-headed, but the most are plain-headed. One can in this variety have anything he wants; for instance, by a cross with Swallows a bird is produced with the coloured head, flights, tail, and feathered feet; by introducing a white bird Spots will be thrown in abundance, &c.

The Snell is called by many the Helmet, from the fancied resemblance to the covering of the head used by the ancient knights. One of the best exercises for a studious fancier, or for anyone who wishes to excel in the breeding of varieties, is to spend a few years experimenting with the selection and fixing of colour among Toys. It serves as an introduction to the study of the higher fancies, and it is absolutely needed for an appreciation of the Almonds, &c.

What amateur or tradesman of five, or even ten years, year, or twenty years, whose mission it has been to buy and sell birds, or to raise a few, can select a pair of short-faced birds, even out of his own loft, and say that they will breed Almonds? The reason of this is because everyone that buys a pair of Pigeons wants that pair to go down to hard work, laying eggs and nursing young ones, regardless of anything that may be learned, other than the price those young will bring.

Everything a man learns from personal experience becomes a key to something else he may come in contact with, and to nothing is this more applicable than in the Pigeon fancy. The fact of knowing that a cross between the Swallow and a Helmet will give the nucleus for a capped feather-footed Snell, is of itself knowledge invaluable. That this can be done anyone can prove by trying; and what are we here for but to observe, compare, and experiment?—Dr. W. P. Morgan, *Baltimore*.—(*American Fanciers' Journal*.)

In a late number there was an article on Snells, some parts of which are in my opinion incorrect.

That it, together with the Nun, was produced in Germany is not doubted; but that it was *not* produced (as the writer states it evidently was) from the same forefathers is apparent—the undegenerated Snell not being a Toy but a Tumbler bred to markings. Most fanciers, however, neglected every property except feather, hence the common Snell of to-day is nothing more than a Toy. Helmet Tumblers are yet seen occasionally. On the other hand a Nun bred to the highest standard is not, nor never was, else than a Toy. How, then, the same parentage?

The writer, Dr. W. P. Morgan, then states that "anyone familiar with markings can, in a few years, produce Breasters, Magpies, Swallows, Nuns, Snells, &c., at will" (the italics are not his but mine), and then proceeds to assure us that "a Magpie, for instance, is but a Nun which has transferred the black from the wings to the back and breast;" but allow me to ask whether he has ever *merely* transferred that black? I might here remark that a Magpie is also of Tumbler origin, and differs from a Nun, not only in colour but also in build. My reason for emphasising *at will* is this: the Germans produce new varieties of Toys by putting a number of hens of various breeds in a loft with male birds of other breeds, thus having no male and female of the same variety, and allow them to mate as their inclination tends.

As your correspondent says he has seen "Nuns, Snells (with and without coloured flights), Spots, Breasters, Moorcaps, Death's Heads, &c., that were produced from the same strain of birds," he will of course not object, *pro bono publico*, to give the foundation of that truly wonderful strain. What he gives as

an explanation (that it is "in the same manner as you have seen Turbits bred from Owls, caps and all, and *vice-versa*") does not satisfy me, at least, as breeding for colour is quite another matter to breeding caps and plain heads out of one pair; but Owls and Turbits differ in far more important points than as to caps, in fact there are plain-head Turbits, and a pair is, or was several months since, in this city.

In reference to the statement that "a Swallow or Snell can be transmogrified into a Snell or Swallow," I would ask how a Snell, which is a clean-legged bird, can be transformed into a heavy-booted bird vastly different in carriage, form, and markings?—W. ATLEE BURPEE.—(*American Fanciers' Journal*.)

[Doctors differ no doubt in America as in England, and, as we see above, someone differs from the doctor of American Pigeon fanciers—viz., Dr. Morgan. Dr. Morgan is quite right that the Helmet—that is, the original Helmet, is a contemporary of the Nun and the Spot. Moore, A.D. 1735, mentions the bird, and in his day it is clear that it was as thoroughly a Toy as either of the other birds, and nothing whatever of a Tumbler, as it was gravel-eyed; also, like the Nun, it was dovehouse-Pigeon-shaped and not Tumbler-shaped. The difference of any modern Helmet from the ancient one is that now the flight feathers are white and not dark, probably because now they (the Helmets) are further removed from the Nuns and more akin to the Tumblers; but I think the Helmet would be a better bird if it had the flight feathers dark.

Dr. Morgan has in his eye clearly the old Toy Helmet—the original Helmet; but, on the other hand, Mr. Burpee has in his eye the Helmet Tumbler, which Brent, long a resident in Germany, first as an English author mentions, and to which, half German by association as he was, he inclines. But I claim a higher English pedigree for the Toy Helmet, which was no Tumbler at all. Just as two doctors may differ and yet both be right, so of Dr. Morgan and Mr. Burpee. They refer to different birds, if I understand them rightly. I have called the birds all through Helmets, as the name "Snell" is unknown in England.

I have before noted that mere feather Pigeons find little favour in England, unless of very great beauty. German Toys are not much cared for, although the best part—the original part—of Brent's book is that in which he speaks of them; but though it has been published a dozen years or more, and has had a wide circulation, still German Toys are in few hands. I would, however, say that the breeding of our old English Toys ought to be kept up, and are the very birds for lady fanciers to take to, and in their hands would be certain, from their taste in colours, to improve. A pigeonry—an enclosed one—in which, for instance, were Nuns, Helmets, and Spots of various colours, would form a very pretty sight from their slight yet distinct shades of difference, and would be just the birds to interest ladies.—WILTSHIRE RECTOR.]

THE WASHING OF CAGE BIRDS FOR EXHIBITION.

THE exhibition season for cage birds is "on the wing," and for the particular information of those who have not hitherto tried their hands at the washing process, much useful instruction may be gleaned from a work published some years back, bearing the name of Mr. Barnesby, Derby, Judge of Birds. One-half the battle in bird-exhibiting is the staging of the birds in a clean condition, without which it cannot be expected that high honours can be gained. We give the following as his *modus operandi*:—"Many fine birds have been kept in the rear rank owing to the smoky or dirty state they have been in when exhibited. Whatever bloom they may be possessed of is partly hidden by the dirt and smoke; and were unclean birds encouraged before cleanly-looking specimens, an inducement would be offered to filth, and exhibitions would deteriorate. In performing the operation of washing much care must be exercised. You will require a cage for drying-in before the fire, with a soft cloth placed on the bottom inside the cage." [The use of a wire cage for drying-in is preferable to placing a washed bird upon a cloth upon the fender, as has been unwisely suggested, thus risking the chance of the bird darting from off the fender; and, even if it did not come in contact with the ashes beneath the grate, to a certainty it would not improve either the breast, wings, or tail during the time it was fluttering about.]

Mr. Barnesby further states, "A shaving brush (the one I use for the washing operation is of badger hair, being soft and easy), a fine soft drying cloth for extracting as much damp as possible out of the feathers before placing them in the drying cage, and two bowls for washing the birds in." [Two bowls will be quite sufficient.] "When you lay hold of a bird to wash it, handle it firmly but carefully. Hold the bird in the left hand with the head towards the wrist, the tail falling or resting along the forefinger. When washing, do not press the thumb tightly across the bird's neck, for by so doing the neck feathers may possibly

become frilled; then, after rubbing the brush upon the soap, apply it to the back of the bird, washing the back and wings down to the tail. Having freely operated in this manner turn the bird upon its back, and in a similar way clean the breast and underneath portion. Operate on the neck and head, and when you find the dirt well extracted rinse in clean warm water, or the feathers will not be in proper condition when the bird is dry. Do not be afraid of soap getting into the eyes or mouth, but of course be as careful as possible in this respect. The birds will during the washing become somewhat prostrate, and appear to an unpractised person as though they were dying, but it is not often such accidents happen."—A. FANCIER.

(To be continued.)

PROFITABLE BEE-KEEPING.

THERE can be no doubt that the object of bee-keeping is to get as much honey as possible. I say "the" object *par excellence*; there are doubtless many objects in bee-keeping. The naturalist and the lover of nature each has his object: the first in the scientific study of bees, to understand their habits and characteristics; the second in the great beauty and pleasure which belongs to these creatures, and their presence near the dwelling of man. The hum of the apiary in spring and summer has a special charm of its own, well appreciated by multitudes. But after all, honey is the *raison d'être* of bee-keeping. Granted, of course, for who will gainsay it, any more than that milk and butter are the object of the dairy farmer? How, then, shall we get the largest possible harvest from our apiaries? It appears to me that there is a ready answer to this question, which at no other period in the world's history could have been given. Our modern appliances are so perfect that a very little system introduced into the management of the apiary would produce in every case the maximum of profit with a minimum of loss.

Let me at once say that in future times high farming among bees should aim at the entire removal from all hives of every particle of honey which the insects have collected by the end of July or August, according to the season and the locality. What is easier with our bar-framed hives and honey-slingers than, after driving any given stock into some temporary hive, to place every comb within the latter-named instrument, extract the honey by a few turns of the handle, and when emptied (which can now be done, it seems, without injury to the brood) replace them, and when the emptied combs have been carefully re-adjusted, return the bees, and let them start fair again. Of course they will require to be fed, but with excellent sugar at 3d. per lb., or even less, and our improved methods of feeding, there is no difficulty here. As the cheapest good honey, such as all honey must be that is extracted from the cells without bruising them, would fetch from 1s. to 2s. per lb., it is a poor country where the average yield of ten stocks under our improved system would not give 15 lbs. of honey in the stock hive itself, after removing the supers. At 1s. per lb. ten hives would produce £7 10s.; deduct from this 15 lbs. of sugar at 3d. per lb., yielding, with an equal weight of water, 30 lbs. of food to each hive. This would give 3s. 9d. as the cost of feeding per hive, or £1 17s. 6d. for the ten; leaving a profit on the transaction of £5 12s. 6d., which would be no mean addition to a poor man's income; this too, bear in mind, in surplussage of his super-obtained honey.

I have only partially tried this plan, and I am not in a position to carry it out myself, but I venture to put it forward for ventilation among your apiarian readers. Will someone give it a fair trial, and report progress in these pages?—B. & W.

HYBRID VERSUS MONGREL BEES.

IT has been the habit of bee-keepers, when speaking of the cross between the common bee (*Apis mellifica*), and the Ligurian (*Apis ligustica*), to style their progeny hybrids. I think this must be looked upon as a misnomer, and the proper designation should be mongrels, as there is no doubt that both bees are of one species. In this all entomologists agree, and Dr. Gerstaecker even goes so far as to consider the Egyptian bee (*A. fasciata*), and another African species (*A. Adansonii*), as mere varieties also. Distinct species seldom voluntarily interbreed; whilst from the difficulty we find in keeping Ligurians pure we know our two bees commonly do. Darwin says, "First crosses between forms sufficiently distinct to be ranked as species and their hybrids are very generally, but not always, sterile. First crosses between forms known to be varieties, or sufficiently alike to be considered as varieties, and their mongrel offspring, are very generally, but not always, fertile." Breeders of cattle, poultry, &c., know well that the introduction of fresh blood from a distant source into their stock gives health and vigour to the subsequent young, and bee-keepers find the same law of nature holds good with bees. Establish a healthy Ligurian stock in our apiary, and the old inhabitants will take a new lease of life and strength. Entomologists are in a difficulty as to which

variety to rank as the species—whether to say *Apis mellifica* var. *ligustica* or *vice versa*. The first I think is the more generally adopted; but our distinguished hymenopterist, Mr. Frederick Smith, of the British Museum, seems to consider the most highly coloured as the typical form, and the possibility of its being more correct to give the precedence to *A. ligustica*, but that it cannot be decided satisfactorily until we know in what country *A. mellifica* really originated. Columella tells us that Mount Hymethus was celebrated for the best honey in all Greece, and that the ancients believed that bees were first bred there, and that all other bees were but colonies from that mountain. What a pity he does not go a step further and say if they were our friends with the golden bands, or their more soberly attired rival the old British bee.—JOHN HUNTER.

BEES AT THE CRYSTAL PALACE.

YOUR correspondent "A YOUNG APIARIAN" proves my case when he says, "I saw hundreds, if not thousands, of dead bees on the floor of the balcony devoted to the manipulation. I attributed the loss of life to the people treading on the bees which happened to settle on the ground." We are therefore agreed upon a monstrous loss of life which did not illustrate very forcibly to the well-dressed crowd, who flattened their noses in safety against the glass partition, the motto of "Never kill a bee," which Mr. Marriott constantly proclaims in the Palace—a result which certainly should be aimed at by all bee-keepers. I agree with "A YOUNG APIARIAN" that we are much indebted to the organisers of the bee exhibition, for they have taught us that the work of driving and making of swarms cannot be successfully performed—*i. e.*, without loss of life, under conditions such as must exist at the Palace.

The possibility of the labouring classes attending such exhibitions for the purposes of instruction is out of the question. The price is prohibitive. One shilling for admission to the Palace exclusive of railway fare, 6*d.* for a catalogue, and 6*d.* for admission to the manipulation, and a day's wage, is at vanishing point. I would suggest a more effective method, and one followed by me. The first artificial swarm I made was made to some extent in secret. My second effort was made in the presence of villagers who were asked to see me work. Since that I have had many invitations to drive my neighbours' bees, and these I have accepted where I thought it possible that my work would have the effect of diffusing knowledge; and I flatter myself I have done better service among villagers than even the much-bepraised bee exhibition of 1874.—BEATEN BUT NOT DISMAYED.

HONEY MARKET.

MANY small bee-keepers keep writing to me about a market for their honey. I wish I could help them, but I cannot. At Rusholme I found a market amongst private families for a great deal of honey annually. Here private families buy all I have at good prices. Both places are surrounded by wealthy people. Wholesale dealers both in England and Scotland write for prices; they evidently are anxious to buy honey. In Glasgow and Edinburgh there is a great consumption of honey. It would be easy to sell there at good prices all the heather honey gathered in England and stored in casks. The buyers there prefer it in jars called "honey cans," holding 5 lbs. each. Five pounds thus jarred are there called "a pint of honey." It cannot be safely sent a distance in jars; better take a smaller price for it in casks; better still to sell it near home if possible. In country places there may be a difficulty in finding buyers, but near large populations there should be little difficulty in selling good honey. There is a honey fair at Wrexham every year, and there honey, I am told, realises 1*s.* 4*d.* and 1*s.* 6*d.* per lb. If bee-keepers will try to create a market for the produce of their bees I am sure they will succeed. Publicity and a good article generally fetch customers. These statements are made with a view to prevent private inquiries being sent to me. It is of no use to write to me, for I will not give the names of buyers of honey. To name anybody publicly would cause many to write to him, and thus cause him to offer less than current prices. Another thing—I have not time to answer private letters.—A. PETTIGREW.

OUR LETTER BOX.

Poultry becoming light (Rather Anxious).—There is something wrong about your feeding. If your fowls and Ducks get nothing more than you describe, then we condemn the potatoes. We have always held them to be wretched poultry food. We hardly know the cause of the malady, but we will try to suggest a cure. Ducks throw physic to the dogs, they have a soul above it. We have given a Duck a tablespoonful of calomel at a time without the slightest effect. But just as one of the plans of treating a drunkard is to place him where he can get no drink, so we advise you to put your Ducks in an outhouse with an earthen floor. Supply them with a milk pan, the bottom of which must be covered with a sod of grass; this again must be covered with gravel, oats must be strewn on the gravel, and the whole covered with water. Let them have nothing else, and they will regain their appetite and their flesh. Give the pullet a tablespoonful of castor oil

every other day during a week. Feed only on barleymeal or ground oats slaked with water morning and evening. Feed at mid-day with maize or scraps. Feed scantily rather than otherwise.

PIGEONS AND BANTAMS OF FORMER DAYS (J. R.).—We think that the Pigeons you remember are what are now called Birmingham Rollers, very likely crossed with the Barb. Long-faced Barbs were then common, and often had a tuft at the back of their heads. These reared their young well, having fairly long beaks, and they were numerous. As to the Bantams, we have a distinct recollection of similar. They were a breed of Nankin-booted Bantams. The cocks were not then, as some are shown now, Buff, but Red with black breasts, and full-flowing tails and rose combs, and very handsome birds they were. They and all Bantams except Sebrights were larger then, as you rightly state. We have not seen such as you describe for many years.

PIGEON MARKERS (S. Turner).—Write to Messrs. Calton & Co., 30, Ludgate Hill, London.

NOTTINGHAM CANARY SHOW (J. Evans).—We cannot insert your letter.

TODMORDEN RABBIT SHOW (E. H.).—If your details are correct the Committee are liable for the loss of your Rabbit, and we think you could recover its value in the County Court.

BARLEY SUGAR (Triceps).—You have not boiled it sufficiently. Boil it until a drop falling on a cold plate speedily hardens.

METEOROLOGICAL OBSERVATIONS,

CAMDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W.; Altitude 111 feet.

DATE.	9 A.M.				IN THE DAY.						Rain.	
1874. Oct.	Barometer at 32° and Sea Level.	Hygrometer.		Direction of Wind.	Temp. of Soil at 1 foot.	Shade Temperature.		Radiation Temperature		In. sun.		On grass
		Dry.	Wet.			Max.	Min.	deg.	deg.			
We. 14	29.896	53.8	52.5	N.E.	54.5	61.1	52.0	78.5	49.7	0.292		
Th. 15	29.457	60.1	58.8	S.	55.2	65.8	53.8	87.5	58.9	0.280		
Fri. 16	29.478	56.8	56.4	N.E.	55.7	58.2	53.0	61.1	51.2	0.010		
Sat. 17	29.884	53.2	51.7	S.E.	54.8	61.8	47.2	97.8	44.8	0.016		
Sun. 18	29.938	53.8	52.5	S.W.	54.8	62.0	49.8	91.4	45.3	0.015		
Mo. 19	29.88	54.5	52.2	N.W.	54.0	61.1	50.1	95.6	45.9	—		
Tu. 20	30.276	45.3	43.7	W.	52.6	56.1	38.2	87.3	38.7	—		
Means	29.867	53.9	52.4		54.5	60.8	49.1	85.6	47.2	0.553		

REMARKS.

- 14th.—Very dark at 9 A.M., rain at 11.30 for about an hour; fair but dark afternoon; rain at 10 P.M., and heavy rain at 11.30.
 - 15th.—Dark rainy morning; dry afternoon; distant lightning in the N.E. passing towards N. from 6 to 6.30 P.M., heavy rain at 8 P.M.; storm-like and oppressive all day.
 - 16th.—Very dark till noon; afternoon rather better, but still dull and rather dark.
 - 17th.—Fine morning; damp dark afternoon; improving in the evening.
 - 18th.—Rather dull morning, but clearing up soon after 11 A.M., and very fine all the remainder of the day.
 - 19th.—Rain early, but afterwards a very bright pleasant day.
 - 20th.—A very fine dry day, and though rather cold very enjoyable.
- Several dark dull days, but though sunless not cold. The mean temperature of this week still equal to that of the preceding one. The last two days much cooler.—G. J. SYMONS.

COVENT GARDEN MARKET.—OCTOBER 21.

SCARCELY any transactions of note occur here, business being very stationary. Dessert Fruits comprise Marie Louise, Chaumoutelle, Duchesse d'Angoulême, Glon Morceau, and other good varieties. Apples consist of Ribston Pippin, Cox's Orange Pippin, Fearn's, and many others, the season being most prolific.

FRUIT.

	s. d.	s. d.		s. d.	s. d.
Apples.....	1 sieve	0 10 1 6	Mulberries.....	1 lb.	0 10 0 0
Apricots.....	doz.	0 0 0 0	Nectarines.....	doz.	0 0 0 0
Cherries.....	1 lb.	0 0 0 0	Oranges.....	100	12 0 24 0
Chestnuts.....	bushel	0 0 0 0	Peaches.....	doz.	8 15 0 0
Currants.....	1 sieve	0 0 0 0	Pears, kitchen.....	doz.	2 0 3 0
Black.....	do.	0 0 0 0	dessert.....	doz.	1 0 3 0
Figs.....	doz.	0 0 0 0	Pine Apples.....	lb.	2 0 6 0
Filberts.....	lb.	1 0 1 6	Plums.....	1 sieve	3 0 4 0
Cobs.....	lb.	1 0 1 6	Quinces.....	doz.	0 0 0 0
Gooseberries.....	quart	0 0 0 0	Raspberries.....	lb.	0 0 0 0
Grapes, hothouse.....	lb.	1 6 0 0	Strawberries.....	1 lb.	0 0 0 0
Lemons.....	100	8 16 0	Walnuts.....	bushel	10 0 16 0
Melons.....	each	2 0 6 0	ditto.....	100	1 0 2 0

VEGETABLES.

	s. d.	s. d.		s. d.	s. d.
Artichokes.....	doz.	3 0 10 6 0	Leeks.....	doz.	0 10 0 0
Asparagus.....	100	0 0 0 0	Lettuce.....	doz.	1 0 2 0
French.....	0	0 0 0 0	Mashrooms.....	pottle	0 9 2 0
Beans, Kidney.....	1 sieve	1 0 3 6	Mustard & Cress.....	punnet	0 2 0 0
Broad.....	bushel	0 0 0 0	Onions.....	bushel	3 0 5 0
Beet, Red.....	doz.	1 0 3 0	Pickling.....	quart	0 6 0 0
Brussels Sprouts.....	1 sieve	2 0 3 6	Parley per doz.....	bunches	2 0 4 0
Cabbage.....	doz.	1 6 2 6	Peas.....	quart	0 0 0 0
Carrots.....	bunch	4 0 6 0	Potatoes.....	bushel	2 0 4 0
Cap-iceum.....	100	0 0 0 0	Kidney.....	do.	8 0 6 0
Cauliflower.....	doz.	3 0 6 0	Radishes.....	doz. bunches	1 0 1 6
Celery.....	bundle	1 8 2 4	Rhubarb.....	bundle	0 9 1 0
Colicworts.....	doz. bunches	2 6 4 0	Salsify.....	bundle	1 6 0 0
Cucumbers.....	each	0 4 16 0	Scorzonera.....	bundle	1 0 0 0
pickling.....	doz.	0 0 0 0	Sea-kale.....	basket	0 0 0 0
Endive.....	doz.	2 0 0 0	Stallots.....	lb.	8 0 0 0
Fennel.....	bunch	0 8 0 0	Spinach.....	bushel	2 0 4 0
Garlic.....	lb.	0 6 0 0	Tomatoes.....	doz.	0 6 2 6
Herbs.....	bunch	0 8 0 0	Turnips.....	bunch	0 4 0 0
Horseradish.....	bundle	3 0 4 0	Vegetable Marrows.....	doz.	1 0 2 6

WEEKLY CALENDAR.

Day of Month.	Day of Week.	OCT. 29—NOV. 4, 1874.	Average Tempera- ture near London.			Rain in 43 years.	Sun Rises.	Sun Sets.	Moon Rises.	Moon Sets.	Moon's Age.	Clock after Sun.	Day of Year.
			Day.	Night.	Mean.								
29	TH		51.0	35.7	44.8	20	50 af 6	37 af 4	20 7	after.	19	16 11	302
30	F		54.9	38.3	46.6	23	52 6	35 4	31 8	27 1	20	16 14	303
31	S		54.0	38.0	46.0	22	54 6	34 4	4 9	39 2	21	16 17	304
1	SUN	22 SUNDAY AFTER TRINITY.	54.3	37.9	46.1	25	55 6	32 4	8 11	27 2	22	16 18	305
2	M	Kempfer died, 1716.	54.4	37.3	45.8	19	57 6	39 4	mo. 11	44 2	23	16 19	306
3	Tu		53.5	35.9	44.7	19	59 6	28 4	24 0	58 2	24	16 19	307
4	W		52.1	36.8	44.3	22	1 7	26 4	37 1	9 3	25	16 18	308

From observations taken near London during forty-three years, the average day temperature of the week is 53.9°; and its night temperature 37.1°. The greatest heat was 67°, on the 31st, 1854; and the lowest cold 19°, on the 3rd, 1861. The greatest fall of rain was 0.98 inch.

LIFTING AND ROOT-PRUNING FRUIT TREES.

PEACH FAILURES.



HAVING in previous papers treated of the Apple, Pear, and Cherry, both on the free and dwarfing stocks, I propose in this to descant upon the lifting and root-pruning of trees usually grown on Plum stocks—viz., the Apricot, Peach, and Nectarine. I may at the commencement observe that the want of success in cultivating Peaches and Nectarines on walls has, by our friends over the border, been sought to be explained by an endeavour at showing our climate to have decreased in temperature. Admitting the theory that our earth is, and has been for several thousand years, gradually cooling down from its poles to the equator, it is stealing a march upon time and our advanced ideas to say what we shall in these regions ultimately find our conditions as regards climate to be—housed in snow, and clothed in skins, subsisting on seals and other dainties, with attendant comforts, of the present polar regions. Some may like to gratify their fancy by telling us what a very different climate we should have were an oceanic wave to obliterate from the map of the New World all Guatemala, Yucatan, and Honduras, or were such a small gap made through Panama as to let the waters of the Pacific Ocean mingle with those of the Atlantic; we, deprived of the Gulf stream, would have a climate comparable to Iceland, entailing loss of maritime supremacy and nobody knows what. These and other probabilities of what this land of ours was before we knew it, and what it will be when we have ceased to know it, are unquestionably delightful to minds ever tending to materialism in the vain hope of at last getting a glimpse of immaterialism; but the broad fact remains that our country, though it has been cooling for thousands of centuries, has yet a climate and soil in which we now cultivate more subjects foreign of warmer climes than indigenous. Drainage, cultivation, and manurial agents have given us what we lack in climate. To drain the land, as everyone knows, is to add a temperature of 2°, in some cases more, to its natural one; to cultivate is to do things at the right time in properly-prepared soil with after-attendant culture; whilst by manure we push on the crop—it tides over a cold period with the stimulant at its roots, and is sustained in a hot and dry medium from the humus of the manure and by cultivation.

Almost everything we grow has been found to be capable of cultivation in a lower temperature than was calculated. From our greenhouses has passed to the open air with benefit the *Aucuba japonica*; many Orchids at no distant date were roasted into life *alias* death, and the stewpans that were considered necessary for Ferns have all passed away, leaving them much more healthful in our temperature-decreasing climate. Albeit we have to look on the other side. Grapes were grown in this country long before glass was invented, and capital wine made of them, an art which seems to have been resuscitated by Mr. Fenn.

They are now grown against the walls of many cottage homes. I have seen them in North Wales, in Shropshire, and so far north as York; whilst in the sunny south Vines against walls are common enough. It is not to the point to say they are not equal to those grown under glass, but in the market they are of equal value with the majority of imported ones, which are also grown outdoors.

Peaches, also, and Nectarines have been grown in favourable positions from Land's End to John o'Groat's for at least more than a century, if not longer, with the aid of walls, and protection for the blossom and young fruit. Abercrombie, about 1770, gives as full and concise instructions for the cultivation of the Peach and Nectarine as we possess now. It has been calculated, by the late Mr. Thompson I think, that a favourable climate for Peach-culture is when the temperature of February is 40°, March 44°, April 49°, May 55°, June 61°, July 64°, and August 63°; but from Penzance in Cornwall to Sandwick in the Orkneys we have not the favourable temperature. We have, however, favourable positions enhanced by artificial shelter, the aid of walls, and protection, which give us a temperature of 4° to 5° above the natural one. Any place, therefore, having a mean temperature for February of 36°, March 40°, April 45°, May 51°, June 57°, July 60°, and August 59° ought to enable us to grow Peaches against south walls, with protection for the blossom and young fruit, but such is not the fact. In a temperature for March of 40°, April 46°, May 52°, June 58°, July 61°, August 59°, and September 55°, they do not fruit freely nor ripen perfectly. It is patent that the trees against a south wall enjoy for a shorter time the additional heat, being, out of the twenty-four hours, deprived of it for a longer time than it is secured to them, and the mean, therefore, of the temperature for the south wall and protection is made more than it really is from taking the extreme highest and lowest, or at distant intervals of the day and night; and in this way the increased temperature suffers a considerable diminution from the small amount of heat retained by the means adopted. So we must lower the resulting mean temperature of the south wall proportionately, or 2°, which will give us 3° as the temperature of a south wall over the surrounding atmosphere, which will cause us to raise the temperature of the natural climate to, for February, 38°, March 42°, April 47°, May 53°, June 59°, July 62°, August 61°—a temperature not possessed by any place of which we have record north of the Tweed. Southward, and in Ireland, we have many places with a temperature, aided by a wall and protection, favourable to the Peach and Nectarine ripening perfectly. There are spots even there which from altitude have an unfavourable climate, and very often these are not very distantly located. In a valley at 50 feet to 100 or 200 feet above the sea, and if well sheltered, the temperature may be such as to render Peach-culture on walls practicable; but at 400 to 500 feet above sea level it may be impracticable from the diminution of temperature due to altitude. In places north of the Tweed sheltered spots are found where Peaches are grown.

on walls with fair success. At one such in Perthshire Peaches are grown 10 and 11 inches in circumference, but they do not always have good flavour. We have it on the authority of Mr. D. Thomson that Peaches against a wall were uncertain, covered with glass they were improved; and now we have come to this—both in north and south Britain failures are recorded of the Peach crop in unheated glass structures. Nearly a dozen years ago I pointed out the uselessness of unheated orchard houses for the Peach in exposed, high, and cold localities; but this does not prove—the altered opinion of orchard-house promoters (I do not include Mr. Thomson)—our climate to have decreased in temperature, for the Greenwich observations show the contrary; but that cooling or cooled enthusiasm is enabled to perceive and acknowledge a failure as well as a success. It is absurd to conclude that because someone fails to grow Peaches in an unfavourable climate—in a cold and high exposed locality—he is a bungling fellow; whilst the one in a favoured climate because he succeeds, not of his greater knowledge or skill, is wondrous clever. It is from not considering the altered circumstances that the conclusion is arrived at that a failure in Peach-culture on walls is to be taken as parallel of the whole. A failure in one place unfavourably situated points to failure in the most favoured; for what difference can there be in places only a few miles distant from each other? Not much on a plane surface, which our island is the reverse of, and not very greatly differing in temperature, but so much so as to render possible in one locality what is not practicable in another. There is also diversity of moisture—of rainfall as well as of temperature—and of soil, exerting an influence, favourable or the reverse, upon the growth and perfection of fruits.—G. ABBEY.

(To be continued.)

WESTWARD HO!—No. 3.

I MENTIONED that although the main object of my visit to Bath had been frustrated by the sudden and severe illness of my valued friend the late rector, yet I had seen something in fruit-culture which I thought would prove of interest to the readers of the Journal; and as I lately designated Mr. Mount's garden at Canterbury a model Rose garden, so I may speak of the garden of Mr. Cross at Bath as

A MODEL FRUIT GARDEN.

And as in the case of the Canterbury garden it was situated in a place where no one would hardly look for it, so I am quite sure the garden I now proceed to describe would never be looked for in the position in which it is. Would anyone, I should like to know, look for a model garden of any kind in the small spaces attached to a row of houses? Would he, if he were given a space 100 feet by 30, ever dream of converting it into a fruit garden? And yet this is what Mr. Cross's garden is; and when I enumerate the number of kinds grown I rather fancy some will hold up their hands in astonishment. Well, here is the list:—Forty Apples, forty Pears, six Cherries, nine Plums, three Apricots, three Peaches, three Nectarines! The garden is of course walled-in; the south wall contains the Nectarines, &c., the west Plums, and the north Morello Cherries. There is a narrow border, and the centre of the garden is filled with the Apples and Pears, in some cases two or three sorts on one tree. The sorts grown are good. I saw Pear trees literally borne down by the weight of fine, well-formed, and large fruit. Cox's Orange Pippin and other fine Apples produced an abundance, while the Morellos on the north wall were really as fine fruit as ever I saw at an exhibition. And by-the-by, Mr. Cross gave me a wrinkle on the preserving of brandied Cherries. He says that the fruit ought to be put into the brandy alone, and the sugar not added for three months afterwards. In addition to the fruit growing Mr. Cross has a greenhouse, a lean-to, 25 feet by 13, and from an old Hamburg Vine in this he cuts annually three hundred bunches of Grapes averaging a pound each.

It need not, I think, after this be said that his garden is Mr. Cross's hobby, that the trees have all been formed and trained by his own hand, that he is a thoroughly practical man, and has many ingenious devices for the more successful culture of his pets. Some time ago people were complaining of the wire cutting the trees where the system of wiring walls is carried out; and Mr. Cross at that time wrote to the Journal (for he is one of us), and stated that the simplest way to prevent this was twisting the bast two or three times round the wire, and so preventing the friction. I may truly say that,

taking it altogether, I have never seen a more remarkable instance of what real love for a pursuit can do in the most unlooked-for places and under circumstances of no ordinary difficulty; and when people hereafter complain of the impossibility of growing fruit trees I shall think of Mr. Cross's garden at Bath.

As I mentioned, Bath was taken *en route* to Taunton; but it will readily be imagined that I was not likely to go to the latter place without calling in at Langport to see the Gladiolus of Mr. Kelway, and my last visit in this westward trip was paid to the

LANGPORT NURSERY.

Everyone who reads our Journal must know that the nursery has been made famous by the successful culture of the Gladiolus, and many have witnessed the proofs of that success in the marvellous spikes exhibited at the Crystal Palace, South Kensington, and elsewhere. For between twenty and thirty years Mr. Kelway has been pursuing their culture, and there can be no doubt that he has now a strain of flowers of unsurpassed excellence and of great variety of colouring.

Unfortunately neither Mr. Kelway nor his son was at home, but I had the advantage of going through his grounds with his foreman Mr. Drummond and of examining very many of his flowers. I do not think that on the whole his culture were quite equal to those of former years. In the early part of the year Mr. Kelway, jun., was laid by for many weeks with rheumatic fever, and hence, probably, the care required at planting time was not so freely bestowed; but still, what wonderful blooms there were there, and what fine, vigorous, healthy foliage! It would be idle for me to attempt to enumerate the sorts which I marked and noted in my memorandum-book as fine. Let me, however, note a few. Beauty of England is a noble white flower of large size and great purity; and even greater praise than this may be given to Phyllis, a lovely pure white flower. Batistus, flesh, flaked carmine; Ball of Fire, brilliant scarlet crimson; Rev. H. H. Dombain, soft red with white throat; Capt. Stuckey, dark crimson; Lady Bridport, bluish, flaked carmine; Hecamède, a yellowish flower; Orange Boven, a fine deep-coloured yellow; Harrison Weir, pink, with purplish white feather; Jones, something like Orphée, but larger; Acme, a fine long spike; Eclair, rich currant red; Pictum, salmon red flaked with carmine; Medina, white, shaded rose; Miss Phillis Stuckey, rose, white line on each petal. But there I must stop, for I could fill pages with an enumeration of fine and desirable sorts. As I have said before, there does not seem to be anything peculiar in the soil or cultivation to account for Mr. Kelway's success. It simply arises from this, that he has obtained a very fine strain of flowers and that he grows them well. His plants are, I think, unusually wide apart (2 feet); but he can afford the room, so there is no reason why he should not carry out his plan. I should doubt, too, the use of so large a quantity of manure for top-dressing as he employs. But then he would probably say to me, "See what it has done." No one looking at this noble collection but would desire to grow the flower; and were it not for the terrible drawback of the disease I am sure Gladioli would be much more extensively cultivated than they are. No one has done more by his own success and by the beautiful flowers he exhibits to extend their culture than Mr. Kelway, and a visit to his grounds at the blooming time is no ordinary treat.

This has ended my westward run. I have said my say about the Taunton Show; and I have only to repeat again what I have said so often before—that I have experienced nothing but the utmost kindness and good feeling from all lovers of flowers of whatever grade with whom I have been brought into contact.—D., Deal.

DATURA ARBOREA CULTURE.

This is a very old plant that little attention is paid to, but when well grown it is a very showy subject in September and October, and it is easily grown; but still, if not grown well it is worthless, and this applies to all sorts of plants. A well-grown Balsam is worth looking at, but a stunted one is worthless. If an eye of Datura is struck in March and kept in a frame for six weeks it will give twelve to eighteen blooms by September; and the following year, if cut down within an eye of the old wood, it will produce three dozen or so of flowers. It is a gross-feeding plant, and will take one-third of manure in a lumpy state and mixed with the soil. The points of the shoots are apt to be attacked with green fly, and must be well syringed also to prevent red spider. When done bloom-

ing it can be put into a shed or under a stage till spring, and disrooted and grown on. I used to grow six plants of it, and it was much cared for by the late Countess of Wemyss. I believe it would bloom out of doors in autumn in a warm sheltered spot.—JOHN ADDISON, *Ormiston, Tranent, N.B.*

MILDEWED VINES—AVOID A SPURT.

WHEN Ovid prescribed his well-known but I fear little-heeded remedies of love, one of the precepts he urged upon all desirous of getting rid of the tender passion was that they should look upon the dark side of everything.

"Ad mala quisque animum referat sua."

And as an instance of this he says—

"Est tibi rure bono generosæ fertilis uva:
Vinea ne nascens uva sit usta, time."

Which I render thus—

"A fruitful vineyard on rich soil is thine:
Suspect each berry mildewed on the Vine."

Such has been the actual case with my Vines this year. In an orchard house 120 feet in length my Vines have usually been most prolific, but this year the earliest leaves, and the wood also on which they grew, presented a mildewed appearance. The berries attained no plumpness, and were so utterly good for nothing, that I was surprised that even the wasps liked them. I shall be glad to know upon your authority whether it will be worth my while to retain these Vines. I may mention that I have observed other Vines on my neighbours' walls similarly affected. I send you a leaf, and "*ex uno disce omnes.*" My Peaches, on the other hand, have been plentiful and excellent, and have not only given me in succession fine fruit from the 14th of July till the beginning of this month, but have supplied many of my friends' tables also. So many blossoms set in the spring that my chief care was to thin. This I always do severely, for I remember when I was in the Oxford crew old Coombes, our trainer, used to say, when he thought our boat, "*juvenilibus acta lacertis,*" was going at a killing pace, "Govern yourselves, gents!" He well knew in a six-mile race the vanity of spurts, and that a long pull, and a strong pull, and a pull all together, was the correct thing. Well, sir, we lost our race that year, partly owing to our disregard of his instructions, though doubtless we should have been distanced anyhow, for the Cambridge was a clipping crew. There were two Denmans in it, the sons of a Judge who had himself walked when a young man from Cambridge to London, and the elder of the two destined to be a Judge, while the younger performed the same pedestrian feat. There was a Cobbold in it, who on account of his many-horse power was called "The Steam Engine," and a likely Westminster lad named Vials, whom we rather disrespectfully called "Bottles," the stroke ear. This, I know, is a digression; but patience, good sir, I shall soon come to my horticultural point. We became like exhausted trees from an overcrop of Peaches, for owing to an accidental circumstance, involving the catching of a crab on the larboard side, we came to grief at the start, and our stroke, anxious to make up for the ground, or rather water, lost by this disaster, and oblivious of Coombes' oft-repeated formula, "Govern yourselves, gents!" put on a terrific spurt before we had got our second wind; and although the immediate result of this ill-advised burst was nearly to overhaul our opponents at the Horseferry (we used to row from Westminster to Putney in those days), yet after that we saw no more of them until we met them at dinner at the Bells Tavern, for no Lord Mayor used to ask us to dine then; if he had we should have sent him a prompt and civil reply.

Well, but now to my application. When my Peach trees are covered with early fruit I say to them, "Govern yourselves, gents! Do not exhaust yourselves by overdoing it, and taxing too much your latent energies. Slow and steady wins the race." And I take the liberty at stated intervals of divesting them of their redundant fruit until I have reduced them to about one Peach per square foot, and the result is not only plenty of Peaches, but fruit large, well ripened, and delicious.—A CONSTANT READER.

Question.—Does "*usta uva*" mean a mildewed berry?

[How shall we answer such an *olla podrida* of queries and information, in phrases varying from "lively to severe?" (we should have written "serious" instead of "severe," but there is one syllable too many)—we will endeavour to respond in unison. Your Vines are severely mildewed. Burn all the leaves when fallen, then paint the entire viney, and Vines,

stems, and branches, with a creamy mixture of clay, lime, and flowers of sulphur; pare off an inch of the inside border, and dust the whole of the surface with flowers of sulphur. Judging from the leaf sent, we think the house is kept too damp and too little ventilated. Then as to thinning Peaches—and the apothegm applies to all fruit—old Coombes' warning was applicable; and we remember an old clergyman, who must have been "A CONSTANT READER'S" fellow student at Oxford, who thinned the crops of his dwarf standard Apple trees unmercifully, and who used to observe, "I wish my parishioners could thin their families like that."

"*Usta uva*" may mean a mildewed Grape; but as we know of no mention in any of the Latin Scriptores Rei Rusticæ or Geoponic authors who mention mildew by any other name than *rubigo*, we incline to think that Ovid took his simile from what gardeners now term "the rust," not only because it agrees with the interpretation of "*usta*," burnt or browned, but because it also is early noticeable upon outdoor Grapes, which alone were known to the Romans; and that young berries were referred to seems indicated by employing the term "*nascens*," beginning to grow.—EDS.]

NOVELTIES IN THE ROYAL GARDENS, KEW.

In the Temperate house in flower is the beautiful *Lapageria rosea* var. *alba*. The flowers are of the purest white, and chaste in form. To show them to the best advantage the plant must be trained above the level of the eye, and it is then an object of great elegance. This may also be said of the species, to which, of course, the treatment we shall give applies. It does well in a greenhouse, in shade or otherwise, and may be grown with success in cool ferneries and Orchid houses. Except when required for special purposes, it is always best to plant out; greater success is insured, and with less trouble. Good drainage is essential. The soil may consist of rough peat and loam, chiefly of the former, with which may be mixed pieces of sandstone or broken bricks. Care must be taken not to have the mass too solid. Snails are extremely fond of the young shoots, and it is necessary to guard against them. It is a good plan to use the hollow rings of earthen ware filled with water as for Dahlias. Increase is effected from cuttings or layers, and also from seeds, which must be secured by artificial impregnation, as the fruit does not set of itself. It is very nearly, if not quite, hardy. An old plant taken from one of the houses has lived on the wall of the herbaceous ground for the last two winters, and though much punished by removal, has been gradually recovering. We hope soon to hear of the *Philageria Veitchii* being sent out. It is an interesting hybrid, obtained by the Messrs. Veitch between *Lapageria rosea* and *Philesia buxifolia*; the former was fertilised with pollen from the latter, the result is nearly intermediate, inclining to *Lapageria*. *Philesia* is thriving on a rock-work in this house, where it is very ornamental when in flower. It does well with the same general treatment as given for its ally, but being a dwarf shrub requires a different position, and may rightly be planted on a rockwork devoted to Ferns. We recommend a trial out of doors, it having been described as "probably hardy."

Rhodochiton volubile trained on a wire has a very pretty appearance. It is an old acquaintance that should not be forgotten, though now but little cultivated. The leaves are heart-shaped and handsome. Flowers are produced in profusion, and long after the corolla has fallen the large pink calyx remains, forming in this case an attractive line of colour. Cuttings may be struck, selecting the small and less vigorous branches. It is a native of Mexico, and is allied to *Lophospermum*, from which it differs but little.

Cyathea medullaris is one of the noblest of tree Ferns, and a plant in one of the beds is, perhaps, the finest to be seen anywhere. It is about 24 feet high; the fronds are about 12 feet long, and those that are withered hang down, affording a natural protection to the stem, preserving it from undue dryness. A noticeable feature is the violet black colour of the rachis of the fronds. The spores may be sown in 5-inch pots; half fill with drainage, and then add a mixture of peat and small crocks to within an inch of the top; over the mouth place a piece of glass, and stand the pot in a saucer of water. The young plants should be pricked-out separately as soon as they can be distinguished. While on the subject of raising, we may remark that most Ferns for furnishing purposes are best managed by pricking-off little clumps of the prothallia before the fronds appear, to be grown-on without separation

into individual plants. Neat specimens are quickly obtained by this method; it, of course, does not apply to tree Ferns. *Cyathea medullaris* is one of the few Ferns of economic use to man. The soft inner portion of the stem, which resembles sago, is commonly used as an article of food by the natives of New Zealand and the Pacific Islands.

STRAWBERRY CULTURE.

ALLOW me to add my mite of information on the above; and in answer to "AMATEUR, Cirencester," in your number for the 15th inst. respecting the Early Prolific thriving, I can with confidence say that it did well with me the last two seasons at Sion Hill, Kidderminster, bore an excellent crop of fine, handsome, good-flavoured fruit, and made good growth and plenty of runners. I also saw it forced in pots just as the berries were ripe, and a finer crop no one could wish, and the flavour excellent. I consider it a valuable addition to our early Strawberries, although with me it was a few days behind Black Prince. The sorts I grew were Prolific, Black Prince, Keus' Seedling, President, Dr. Hogg, British Queen, Sir C. Napier, and one called Shropshire Hero, very large; and the best three were Prolific, President, and British Queen. I consider President next in point of flavour to British Queen, which kind, when the soil and situation suit them, to my mind is first-rate; but I think three years long enough for the plants to stand to supply fruit of good quality and flavour. My practice is, as soon as the first runners are formed, to put them on pots filled with soil, with a stone on the wire: they will soon take root. Have a piece of ground prepared, and then plant out 2 feet between the rows and 18 inches from plant to plant. I keep the ground free from weeds, but never stir the soil between them except with the hoe from the time they are planted till they are taken up; but every spring after they are cleaned I well cover the ground between them with good fresh stable dung, so that it acts as a manure, and the rain washes the straw clean so that there is no grit on the fruit the following summer.—S. TAYLOR, *The Gardens, Castlecroft, Wolverhampton.*

COLONIAL BOTANICAL GARDENS—CEYLON.

IN the last number of your Journal you alluded to the neglect of the cultivation of that valuable plant the Cinchona at St. Helena, and it may, perhaps, interest you and your readers to learn with what praiseworthy energy my friend Mr. G. H. K. Thwaites, the accomplished Director of the Botanical Gardens in that garden of the east, Ceylon, pursues his interesting labours.

CINCHONA.—I have before me the Director's report for the current year, and I gather from it that there is very great activity going on in the cultivation of Cinchona in the island. During last year applications were most numerous, and some 670,500 plants were issued, and this did not meet the demand. This issue does not altogether represent the extent of the Cinchona cultivation, since many of the Coffee planters located at suitable elevations within the mountain zone are forming nurseries of their own for the propagation of plants from seeds and cuttings. Cinchona succirubra appears to be principally in request at present, as it is deemed the most suitable species for the elevations at which Cinchona is planted, growing more rapidly, and consequently yielding within a given time a larger bulk of bark than would be furnished by the Cinchona officinalis; still a good deal of the last-named very valuable species is being grown at elevations exceeding 4000 feet above the sea level.

COFFEE.—The Coffee-leaf disease (*Hemileia vastatrix*) is still existing in many of the plantations in the island. Mr. Thwaites states that the disease consists in the parasitic growth within the Coffee tree of a well-defined species of fungus, originated and produced by means of spores, easily identified by the medium of the microscope, and readily distinguishable from every other known fungus. The fungus has only yet been detected in a definite organised form in the cellular tissue of the Coffee leaf lying immediately under the diseased spots, in the spores themselves, and in the filaments produced by the germinating spores. The fungus would appear, however, to be present in the growing tissues generally of the Coffee plant in a diffused form, altering the character of the cell-contents, and thus producing the stains observable on the bark of the young branches, and the pale, somewhat translucent spots to be seen in the leaves previously to the outbreak of the orange-coloured spores. Secondary spores have also

been observed under the microscope, which may, doubtless, be easily carried by the wind, and thereby convey infection to other plantations.

The Coffee tree under the first attack of the disease would seem to lose by degrees its vital energy. After the first attack fresh healthy leaves are often thrown out, but after a time the spotting appears on them, and the leaves fall off. The Coffee trees, after these repeated attacks, if old, and the soil of the plantation be poor, cease to yield berries to any extent. Mr. Thwaites has good reason to believe that the Coffee tree is much better able to resist this fungus if the soil has been highly cultivated and manured with discretion. Numerous small maggots have been discovered feeding on the epores. It is to be hoped that this useful maggot will become a very legion. A few Coffee plants have been received from the Gold Coast, and sent to Ceylon by Dr. Hooker, of Kew, but they have been attacked, I have just been informed, by the disease. It is quite certain that the present Governor of Ceylon (Mr. Gregory), and the accomplished Directors of Kew and Ceylon Botanical Gardens, will do all that energy and science can achieve to arrest this terrible pest. The result will be most anxiously watched by those who have invested very large sums in Coffee cultivation in the colony.—E. RAWDON POWER, *Ceylon Civil Service (Retired).*

WOOLHOPE NATURALISTS' FIELD CLUB— THE ANNUAL FUNGUS FORAYS.

THE opening muster of the mycologists proper took place on the 29th of September, and a select band arrived at Downton. The foray began under the leadership of Dr. Jones. The fame of "the gorge of the Teme" for its lovely scenery is world-wide. The river rushes through a stony channel, now broad and rippling, and again contracted, deep, and silent, whilst its banks are fringed everywhere by the richest variety of woods. It is indeed a lovely valley, though not for its loveliness was it visited on this occasion. Here is the only known British home of the brilliant-coloured Cortinarius (*Dermocybe*) cinnabarinus, and of the *C. militinus*, and here, too, in favourable years grows abundantly the rare *Pir Cone Boletus*, *Strobilomyces strobilaceus*, while on its mossy banks and promontories are to be found other Funguses rare and interesting. Think of this, and shake off the scales of your mental obfuscation!

At the Castle Bridge on an Elm branch a fine *Agaricus* (*Pleurotus*) ulmarius was observed and gathered successfully. Though abundant in the parks and neighbourhood of London, it is rare in Herefordshire, so that we may as well note that it is pleasant and said to be edible. We should suspect it would need a power of stewing to make it tender. Almost at the entrance of the walks the foragers were encountered by a heavy storm of a full hour's duration, which, however, did not stop the hunt or damp the curiosity of the hunters. *Marasmius foetidus* gladdened their hearts, however much it might offend their noses, and its sister *Marasmius erythropus* was pleasant to their visual organs. Why will people keep sniffing at things unpleasant when they know what to expect? At Downton the sweet-scented *Lactarius glycosmus*, *Agaricus* (*Clytocybe*) odoros and fragrans were at hand; and so, too, in plenty was *A. (Hebeloma) pyridorus*, which has a strong odour of Pears beginning to ferment, so that savours more agreeable or less disagreeable as the taste may incline, were not wanting. On a charcoal bed—a "charking place" in the woodman's vernacular—one of the most graceful and beautifully coloured forms of the variable *A. (Omphalia) pyxidatus* delighted the eyes of the fungologists, lifting away the depressing influence of the rain, which was just then at its heaviest. Ordinary mortals may be afraid of rain; a fungologist has but to retreat under sheltering rock or tree, and wholly forget its importunity in the contemplation, as in this case, of the rare *Peziza succosa*, or the *Pezizella Soleia ochracea*, not to mention *Lactarii*, *Cortinarii*, *Boleti*, and *Hygrophori* growing all around in the utmost profusion and variety.

After a short halt in the rustic arbour at the mill (which it was pleasant to see at work), to admire the lofty rocks, and to sketch a picturesque and many-headed boll of a Wych Elm, the way was taken up the highest walks to "Renny's Promontory," a name perhaps not of local significance, yet henceforth never to be forgotten in mycologic lore. It is a high moss-covered promontory, thinly studded with trees, moist though well-drained, damp and yet airy, a very paradise for Funguses. To see them in a favourable season covering the ground here is a sight to remember. Rare Funguses affect the spot. It was here in 1872 that Mr. Renny discovered the brilliant Cortinarius (*Dermocybe*) cinnabarinus growing in clusters, each richer and more dazzling than its fellow just gathered; a bright orange vermillion in colour, with a metallic lustre that defies water colours to imitate. Here, too, in the following year Dr. Bull

found *Cortinarius multiceps*, equally new to the British flora, though by no means so striking in colour or form. The season of 1874 has been so dry and unfavourable that finds were scant on this occasion. The Rev. W. Houghton was the first to find *cinnabarinus*, and a cry of joy quickly summoned his co-mates to admire its lovely tints. Smaller groups were afterwards found, and so the day's foray was a success. True, *Strobilomyces strobilaceus* was not found, though keenly searched for. It is clear that it does not like dry seasons. But many other interesting varieties yielded themselves to the quest of lymx-eyed foragers—e.g., the pretty and not common *Ag. (Amanita) Mappa*, the rare Hedgehog Puff-ball *Lycoperdon echinatum*, *Coprinus picaceus*, *Ag. nanus*, obscure, ermineous, unicolor, &c. A stroll was taken on the slopes of Brimwood Hill to search the open ground and examine some curious trees, but as time was nearly up the note of recall was sounded, and at the rendezvous of the Castle Bridge a beautiful group of *Ag. (Pholiota) heterochitus* was gathered by Mr. Broome from the roots of a Lombardy Poplar. Here a pleasant and welcome hamper turned up, and anon the tired hunters were *Fortey-fied* and refreshed with the Melton pie, chicken sandwiches, and sparkling Carlovitz which formed its contents. The journey back to Ludlow by Oakley Park and Bromfield Church was singularly bright and cheerful, and this not entirely through pleasant memories of the Carlovitz; for the sun shone out again to give the climax of its warmth and cheerfulness to the satisfaction of a good day's work. At Bromfield an ample supply of *Marasmius oreades* and of *Lactarius deliciosus* was secured for the next day's feast, and so, with laden baskets, the excursionists caught the return trains, after a foray very pleasant and satisfactory, the rain notwithstanding. Though the Fungus season in Herefordshire is confessedly unfavourable, upwards of a hundred different species were observed in the excursion of September 29th.

The foray of Wednesday was fixed for Dinmore Hill, a locality which had proved so rich and fruitful in former years (see Transactions of 1871) that it was deemed advisable to revisit it on the bye day. Nor was the idea a bad one, for many interesting plants rewarded the visitors. The rare *Ascobotrys viridis*, *Ag. (Collybia) plexipes*, *Peziza repanda* and *brunnea* were found. The *Sphaeria*, *Cordiceps alutacea*, which is very rare, and usually, if not always, in company with *Spathularia flavida*, was also welcomed. Three specimens of *Ag. (Leptonia) euchrous* also fortunately yielded themselves to gathering—an *Agaric*, as its name imports, of singular beauty, with lovely tints of violet, varying as the light falls upon it. This has not before been observed in Herefordshire. Here, too, were found *Hygrophorus muricatus*, a great abundance of *Ag. (Naucoria) cucumis*, and many other very interesting fungi.

During the night preceding the grand field-day of the week, and following the novel introduction into the dinner *menus* of certain hospitable mansions of *salmi* de *Lycoperdon giganteum*, *salmi* de *Lactarius deliciosus*, and a sauce for cutlets of *Marasmius oreades*, on the evening of the 30th the clouds dropped water to the extent of 1½ inch, and there were grave doubts whether the foray to Stoke Edith could come off. Hopeful members—up and doing with the day dawn—were fain to occupy themselves at the tables on which the Fungi were arranged for exhibition at the "Green Dragon," and to postpone a decision until 9 15 A.M., when, an adjournment having been moved to the street, it was found to be still raining at 9.30. Adjourning again to the Barr's Court Station at 9.45, their faith and patience were rewarded by a brightening sky, and though occasionally the clouds lowered, and the night's rain had made the atmosphere cold and the ground slippery and treacherous, a very pleasant day repaid those who had the courage to venture. Some five-and-twenty repaired to Stoke Edith by train, where they were joined by the President (the Rev. James Davies), who had been kindly accommodated with a seat in Miss Guthrie's carriage, in which were Miss Guthrie herself, Mrs. Lloyd Wynne, of Coed Coch, and Mr. Washington Jackson. The noble owner of Stoke Edith, Lady Emily Foley, had most considerately placed her head gardener and head keeper at the services of the forayers, and thus the delays arising out of defective and speculative guidance were pleasantly minimised. The short grass of the shrubberies was, as usual, excellent hunting ground; but the most memorable finds of the day were as follows:—The rare yellow *Hygrophorus chrysodon*, showing clearly its colours on the slightest bruise; a great profusion of *Ag. (Armillaria) mucedo* on the Beech trees, in a larger and finer condition than is often seen, the larger specimens being from 4 to 6 inches across; a lovely segment of a circle of the Fly *Agaric*, *Ag. (Amanita) muscaria*, too beautiful not to be commemorated; and a very curious *Amanita*, not fully grown, which it puzzled the experts to discriminate and determine. It might be a young giant of a *Vaginatus*, but the scales were not right, nor was its edge serrated. Or it might be a young *Strangulatus* or *Excelsus*. A nut for the mycologists to crack! An eye must be kept on the spot for future examination. Here also, as on almost every foray, was found the interesting *Hygrophorus calyptraeformis*;

nowhere, however, in great abundance. To those who joined the excursion to Stoke Edith, albeit on a day little favoured by sunshine, there were several other attractions, scarcely secondary to the prime motive of fungologising. The flower garden, geometrically arranged by Nesfield, is as perfect a thing as can be seen in a long day's survey of parks and gardens. It is oddly brightened, too, when the bloom is yielding to the early frosts, and spiteful winter forecasts its shadow—by the bright red cloaks of the women who weed the gravel paths of varied shape and colour. Beyond its precincts, up a succession of undulating slopes, stretches an ample deer park, magnificently timbered, and reaching up to the lofty ridge of Seager Hill, whence a carriage drive commands a grand and extensive outlook of the valleys and hills of Herefordshire, Gloucestershire, and South Wales. Beneath it, southward, lies the Woolhope country, which seems to say to the club flowers, whom it has christened, "*Antiquum exquirite matrem*." For the mansion itself, its hall, library, pictures, and tapestry—the last exceedingly curious and well worthy of minute inspection—our readers may refer to the "*Mansions and Manors*" of the President elect. Our space at present admonishes us to take wing, if thought, for Hereford, where—despite the charms of Stoke Edith—a committee meeting awaits the President of 1873 and 1874, to say nothing of the feast and the presentation, which attract as great an interest for many as the forays.

Amongst the Fungi on the "Green Dragon" table we noticed specimens of the *Ag. mucilus*, measuring half an inch more than the largest of those at Stoke Edith; and a splendid sample of the lovely *Peziza aurantia* (8½ inches across)—both sent from Shobden by Lord Bateman. Mr. Houghton exhibited from the Fir plantations of Chetwynd Park, where he has found them year after year, failing last year only, a good specimen of *Sparassis crispa*. Dr. Chapman contributed from the pastures about Hereford a magnificent group of *Ag. (Volvaria) gloiocephalus*, each *Agaric* being 10 inches high, with pilea 17 or 18 inches in circumference. The odour of them is not nice. Near these also was *Agaricus Junonius*. Mr. Berkeley had sent *Leotia circius*, received by him from Scotland; and from Abergavenny Dr. McCullough had brought *Lactarius controversus*, on which he alighted the next day again growing, abnormally we should say, under a Lombardy Poplar. Radalium fagineum, *Lactarius vitellinus*, which Mr. Worthington Smith declines to recommend as edible, however fond of veal some non-Woolhopians may be, and one or two other somewhat rare plants excited and satisfied curiosity. Amongst exceptional contributions to the Fungus Exhibition were a fresh-water sponge from the river Teme, sent by the Messrs. Fortey, and some gigantic rhizomes of the Water Lily, brought by Mr. William Phillips. Amidst this class, had it not miscarried, would have been exhibited a splendid box of the choicest Pears of English growth, sent to the President by Mr. Richard Doddridge Blackmore, M.A., of Exeter College, Oxford, poet, novelist, and market gardener. They might have taught the visitors to the "Green Dragon" to discriminate between the *Beurré*s and the *Doyenné*s, *Louise Bonne*s, and *Marie Louise*, and distracted the lovers of Fungus forms by the weightier claims of pomology. The feast, and the soirée which followed it, were as successful and cheery as their predecessors; and what between the presence of ladies and the festive board, an unanimous delight in the unfeigned surprise of Mr. Worthington Smith at the recognition of his constant services, a pleasant memory will long invest the evening of the 1st of October, 1874.

After the great Fungus dinner, when great tureens of *Coprinus comatus* soup, *Lactarius deliciosus*, and *Boletus edulis* were served, and after the health of the Queen had been drunk,

THE PRESIDENT (Rev. James Davies) rose and introduced the next business of the evening, which he was sure would take no one there by surprise, unless it was, as he hoped and trusted, the person most concerned. As he had been in communication with most of his hearers on the subject, he might at once dash *in medias res*, and state that some three weeks ago a happy thought occurred to Dr. Bull (who, with his usual kindness, admitted him into the partnership of it) that the Club ought no longer to leave unrecognised and unacknowledged the great and gratuitous services of Mr. Worthington G. Smith as its "Mycological Professor," and as one who was ever ready to assist their studies with his pen, his pencil, and his head. Among the literary men he (the President) had met, there were two prominent types—the hoarders of their knowledge, who lived in dread of "a chiel among them takin' notes," and the generous and unselfish communicators and diffusers of the information which they have amassed by patient inquiry. One example of the latter type was the late Sir George Lewis; another, in his way and walk of science, was Mr. W. G. Smith. Every Woolhopian knew he could count upon the free use of Mr. W. G. Smith's experience, and of his very extensive and accurate information. Having himself realised this during his two-years presidency, he (Mr. Davies) readily undertook to co-operate with Dr. Bull in sounding the members of the Club, by letter or word of mouth, with reference to a testimonial, marking the sense of their

gratitude and indebtedness; such testimonial to take the form of silver forks and spoons. The result of their canvas had been an unalloyed success. There had been two ghosts of an alloy, but they vanished almost on the instant of appearance. One gentleman began a letter by denouncing testimonials generally in the strongest terms, but went on in the second page to say that were his objections multiplied a hundredfold, he should still rejoice in the privilege of having had the opportunity to mark by a subscription his great sense of Mr. W. G. Smith's deserts. Another sent a subscription with a letter full of complimentary expressions, and concluding with a hope that the forks and spoons might never assist Mr. Smith in conveying to his mouth poisonous Fungi, which might terminate his career of usefulness. The thought might cast a passing shadow, but reflection told him (the President) that if there was a man in Europe who could be trusted to discriminate between edible and inedible Fungi, that man was Mr. Worthington Smith. In token of their sense of his helpfulness in extending this discriminative knowledge, as well as their regard and goodwill, the Club had deputed him on this occasion to present to Mr. Smith the ashen box which he held in his hands, with the plate which it contained, and he begged him to accept it, to quote the language of the superscription, "in pleasant memory of Fungus-forays, assisted by his experience, illustrated by his pencil, and chronicled by his pen."

Dr. BULL then rose, and after playful allusion to the relative shares of the President and himself in originating this testimonial—a mystery, like the origination of the Franco-German War—went on to say:—The pleasure of the correspondence had also been shared by myself, for it was indeed a great pleasure to read the cordial kind letters received from the members applied to; and when the lithographed circulars were sent out by our President, every post might be said to bring in a fork or a spoon, until our friendly gift—originally small in our ideas—had become really a valuable one. Everyone felt that it was a present really deserved from our Club; and it may be said without hesitation that this feeling will be echoed far and wide through the country. Our Club has done itself honour in giving such kindly expression to their obligation; and all those who have written to Mr. Smith from all parts of the country, asking the names and other information about Funguses, will feel how worthy Mr. Smith is of it. Not to mention the time and patience he has given to all applicants—strangers as well as friends, it must have cost him no small sum in postage stamps alone to reply to them. Our President has not told you how useful that mystical individual, "Our Own Commissioner," was to us. He set to work at once, ornamented the inscription plate with Funguses, and sketched out a design for engraving on the lid of the box. There was not time to carry all this out; but he insisted—and I fully agree with him—that every fork or spoon, in place of crest, should bear a Fungus on its handle—each a different one, and all of them to be copied from the plates published in our "Transactions," or to represent the Funguses new to Britain discovered by our Club; so that the friendly pleasant days he has passed in Herefordshire will be always recalled to him as his eye falls on a *delicious* spoon or *procerus* fork. So a kindly feeling will pervade his domestic everyday life. [Applause.]

Mr. W. G. SMITH, who was warmly applauded on rising, said there was one thing which he never could do, and that was to make a speech, but he felt this inability all the more on that occasion, when he was surprised with such unexpected kindness. He had been thinking only that day how much he was obliged by the unvarying attention and courtesy shown to him in Herefordshire, and he really felt that it was he who ought to make a presentation to the Club rather than the Club to him. He could only add that he prized their splendid gift very highly, and should always feel himself greatly indebted to their kindness. [Applause.]

On the morrow, October 2nd, when the majority of the Woolhopians had gone away, nothing damaged by the fungoid soups and salmis, to their own homes, a staunch and privileged section set out for Garnstone Park, the seat of Major Peplow, M.P. The party slighted in front of the modern castellated mansion, built by Nash, and were welcomed cordially by its hospitable proprietor. No time, however, was lost in beginning operations, though at times an umbrella or the shelter of a tree was a necessity to the most ardent. The lawns and gardens were first inspected, with an eye primarily to rare Funguses, but not without an interest in the horticultural features which distinguish them. The flower garden is effective and uncommon; but the chief thing to note at Garnstone, in the lawns and outside of them, is the fine growth both of Conifers and deciduous trees, which have evidently a very congenial soil and a life entirely to their mind. Visitors of arboricultural tastes could not help lingering behind the foray party to note the Piceas and Pines, Cedars and Junipers of rare sorts, and speculating on the future of a thriving young *Picea bracteata*, or admiring the grace of a *Pinus* or *Norfolkiana*. On the croquet lawn, to return to our chief quest, were found three small rings, and very perfect

rings too, some 2 feet in diameter, of *Hygrophorus russocoriaceus*, scenting the air with a scent as of Russia leather. Hard by them Mr. Renny found a Fungus new to Great Britain, *Ag. tricholoma livivius*, a very interesting plant. Before quitting the lawn for the deer park the hunters came upon *Clavaria rufa* and *Hygrophorus Colemanianus* in abundance, and in the entrance of a small outbuilding which need not be particularised was pointed out a rare instance of *Coprinus domesticus*. Then the mycologists at length broke away for the hillside at the far end of the deer park. Many and curious species of *Cortinarius* were met with *en route* to the hill, from which there was a very fine and panoramic view of West and North Herefordshire, and the hills that bound it, to say nothing of the sleepy but quaint little town of Weobley, just beyond Garnstone. On the frequent charcoal heaps met with in ascending the hill were found *Ag. carbonarius* with *Ag. pyxidatus* and *Cantharellus radicosus*; and, when the ascent was made, Dr. Bull found *Ag. Entoloma jubatus*, a very rare Fungus, first figured as a British plant in the *Woolhope Transactions* for 1868.

It may be noticed generally, as the effect of a very dry season up to three or four weeks ago, that many tribes of Funguses, such as the Boleti, were almost absent. Still *B. Laricinus*, only known within the last few years, was very abundant. *B. elegans* and *B. fragrans*, too, were beginning to appear. The very common *Ag. fascicularis* was scarcely to be seen, though its intimate relation, *sublateritius*, was frequent enough. *A. (Nau-coria) Cucumis* was very common, as also, even more, was the curious *Hygrophorus coeasus*. In many places visited during the week this was noticeable with its odd and gosh-like smell, amongst others in an orchard at Stoke Edith, near the station, where a ring of it was found some 8 feet in diameter. Then, again, the great scarcity of all the tree Polypores was remarkable, so much so as, with the other absences we have referred to, to demonstrate the unusual unproductiveness of the season, in a mycological point of view, arising out of the impossibility of mycelium growth taking place in such very dry weather.

Some such train of thought was passing through at least one mind out of the thirteen or fourteen that visited Garnstone Park, when a summons to return to the mansion interrupted it. Here a handsome luncheon had been provided, to which, after they had inspected some admirable photographs executed by Major Peplow, the mycologists did thorough justice.—(*Hereford Times*.)

ROYAL JERSEY AGRICULTURAL AND HORTICULTURAL SOCIETY.

THE autumnal Exhibition was held in the Vegetable Market, Beresford Street, St. Heliers, on the 14th inst. The fruit in the Apple and Pear classes were superlatively fine, as the weights of a few of the largest varieties will show. The Chasmontel classes were grand examples of the perfection to which this delicious Pear is grown in the island. They were truly wonderful fruit, smooth-skinned, evenly-shaped, and of extraordinary weight. The first-prize fifty weighed 59½ lbs. Jersey weight, or 64½ lbs. avoirdupois; a more evenly selected lot I never saw, and grandly coloured. The Belle de Jersey were immense, the first-prize twenty-five weighing 53 lbs. 9 ozs. avoirdupois, and the first-prize six 20 lbs. 2 ozs., whilst one fruit not in the competition weighed 31 lbs. 18 ozs.

The better varieties of dessert Pears, to which especial attention is given, were so large as to be scarcely recognisable, six *Beurré Bachelier* weighing 8 lbs. were immense fruit. Six General Todtleben vied with the Belle de Jersey for size, but they are not comparable for quality, the former being a first-rate table Pear. Six *Beurré Clairgeau*, the best dish in the Show, were beautifully coloured and most symmetrical—a truly grand dish, their huge size and bright tints of yellow and red attracting the eye, making visitors involuntarily pause to admire; their weight was 10 lbs. 8 ozs. The tree from which these magnificent fruit were picked is a wall tree 10 feet high by 7 feet wide. It bore thirty-five fruit, the total weight of which was 564 lbs.

The Apples were very fine, and the entries very numerous. Grapes were a bad class. Peaches and Strawberries very fine. Walnuts, Chestnuts, and Medlars very fine.

As Pears are my hobby you will excuse my not dwelling on the other kinds of fruit, as I fear I could not do them justice, nor to the vegetables, which I believe were also good. The following is a list of the Pears exhibited, with the weights of such as struck me as especially noticeable:—50 Chasmontel weighed 59 lbs. 12 ozs.; 25 ditto, 28 lbs.; 12 ditto, 12 lbs. 8 ozs.; 6 ditto, 6 lbs.; 25 *Beurré d'Arenberg* (Glon Morçean); 6 ditto, 6 lbs. 10 ozs.; *Beurré Diez*, one fruit, 1 lb. 10 ozs.; 25 *Duchesse d'Angoulême*, 28 lbs.; 12 ditto, 13 lbs.; 25 *Belle de Jersey*, 49 lbs. 10 ozs.; 6 ditto, 20 lbs. 2 ozs.; 25 *Catillac* or Pound Pears, 40 lbs.; 25 *Doyenné du Comice*, 18 lbs.; 6 *Beurré Clairgeau*, 10 lbs. 8 ozs.; 6 *Beurré Bachelier*, 8 lbs.; 6 *Van Mons Léon Leclerc*. Six fruits of each of the following weighed 9 lbs. 6 ozs.:—General Todtleben, De Tongrea, Marie Louise, *Duchesse d'Hiver*,

Maréchal de la Cour, Triomphe de Jodoigne, Beurré Rance, Bergamotte de la Pentecôte [Easter Beurré, Bezi Mai, Crassane, Winter Nelis, Soldat Laboureur, Passe Colmar, Napoléon, Doyenné Defais, Alexandre Lambré, Doyenné Sterckmans, Grashin, Doyenné d'Alençon, Joséphine de Malines, Mathew's Eliza, Forelle, Sœur Grégoire, Beurré Buchannan, Ne Plus Menris, Anna Audusson, Brown Beurré, Président d'Osmonville, Jules d'Airolles, Neuf Maisons. The weights given in the above list are Jersey weights, each pound being equal to 1 lb. 1½ oz. avoirdupois weight.—*VERITAS, Turf Bank, Jersey.*

BORDER FLOWERS.

Now that the brightness is off the formal flower beds, it may not be uninteresting to some of your readers to learn what we have in the mixed borders worth looking at. The following is a list of plants in flower on October 19th. Fine-foliaged plants, of which there is a great variety, are not named, as it is believed they are better known:—

Asters, annual and herbaceous	Violas in variety
Antirrhinum in variety	Sedum Sieboldii
Pentstemon ditto	Salvia patens
African Marigold	Erica in variety
Dahlias in variety	Catananche bicolor
Fuchsias ditto	Achillea Ptarmica plena
Mignonette	Polygonum vacinifolium
Tree Carnations	Chrysosoma Linosyris
Anemone japonica	Coronilla glauca
vitifolia	Coreopsis auriculata
Homarine Jobert	Gent. coccinea
Sedum purpureum	Vittadenia lobata
Achillea aurea	Phyllidius capensis
Lilium fasciculatum	Crucianella stylisa
album	Callardia grandiflora
Eurothera Fraserii	Tritoma aurea
Coreopsis tinctoria	Anemone italica
Polygonum Sieboldii	Eurothera macrocarpa
Oxalis Bowieana	Zauschneria californica
Tunica Saxifraga	Coreopsis lanceolata
Tritoma in variety	Stelia mexicana
Crocus in variety	Ethionema saxatile
Colchicum ditto	Potentilla Hepwoodiana
Sternbergia lutea	Verbena venosa
Galatella cana	Plumbago Larpetae
Erodium hemesodes	Amaranthus in variety
Erythrina Crista-galli	Aconitum autumnale
Sweet Peas	Salvia patens
Alströméria pistacina	Polygonum Braunii
Eupatorium purpureum	Linum narbonneuse

—T.

STRAWBERRY CULTURE.

I WRITE a few more remarks on Strawberries, as one of your correspondents wishes to know as much as possible about them. I will begin at the beginning of my gardening career, and be as brief as possible.

Forty-seven years ago I used to gather the Strawberries, &c., at Carriden, the seat of Admiral Sir J. Hope, and the sorts grown were Grove End, Scarlet Rose, and Hautbois, and a few years after that Keens' Seedling came out, and it has stood its ground in spite of other newer sorts. Mr. Shearer, gardener to the Marquis of Tweedale, Yester, is a great Strawberry-grower, or rather the soil, &c., is well adapted for them, and he grows Keens' Seedling, Sir Harry, Elton, and British Queen. The best of British Queens I ever saw grew there. I was at Eglington Castle this year, and Mr. Gray, the gardener, told me that President is a first-rate variety, is better than Eclipse, and succeeds Keens' Seedling. When I was gardener at Castle-martyr, Ireland, I gathered Black Prince on June 10th, but it grew on a south border. This sort will only do one season: if planted in April it may be cleared off for Broccoli by the middle of June. In this quarter Keens' Seedling is ready about June 25th, but on sloping sunny banks it comes in by the 10th. Where the soil is very light a good dressing of manure put over it, and a dose of water in very dry weather, will make up to some extent for the want of heavy soil; but if this is not done the fruit will not be good, and the plants are sure to die. The Elton is by far the best for jam purposes, being a little tart. I hope some good sort eight days earlier than Keens' Seedling will turn up. There is a new sort (Duke of Edinburgh) raised at Forde Dean, and the owner told me it is very good.—*JOHN ADDISON, Ormiston, Tenant, N.B.*

A DISTRESSING CASE.—We regret to hear that the son of the late Mr. William Barnes, of Camberwell, has become so mentally afflicted as to be a hopeless lunatic, and is now an inmate of the Surrey Lunatic Asylum. In this state be leaves

a wife and four young children entirely dependant on his mother, a widow, who is little able to bear so great a responsibility. A subscription is in course of formation to render the needful aid; and when we state that it is in the hands of Mr. Parker of Tooting, Mr. Fraser of Lea Bridge Road, Mr. Maller of Lewisham, Mr. Kinghorn of Richmond, and Messrs. Barr and Sagden of Covent Garden, we have a sufficient guarantee of the urgency of the case, and of the safety with which the fund will be applied. We hope that all who knew and respected the late Mr. W. Barnes will extend their sympathy to his distressed family.

WASTED VEGETABLES.

MEDICAL men have of late been urging upon us that here in England we depend too much upon bread and Potatoes to the exclusion of other vegetables, and that a more liberal vegetable diet would tend to improve health, and to the prevention of many skin diseases and scorbutic affections from which our working population especially suffer. This is undoubtedly true, and it is not from ignorance of such that we continue to suffer, but from inability to procure vegetable diet. Most people in the upper and middle classes of society have vegetables at command, but the substratum have not the means to purchase them, and unless they are fortunate enough to rent a small patch of garden ground, are, except at occasional times, constrained to do without them. Even in country markets, Cabbages, Cauliflowers, French Beans, Vegetable Marrows, &c., are sold at so much higher rates than are Potatoes, that working men's wives rarely think of purchasing them; yet here in England thousands of tons of vegetables, the produce of gentlemen's gardens, are annually consigned to the midden-stead. And for what reason? Simply because it is considered *infra dig.* for a gentleman to barter the produce of his gardens. These tons of vegetables are just what the people need to keep them in health. In place of flinging surplus vegetables on the rubbish heap, let them be sent to the greengrocer or the huckster. They will not sensibly depreciate the receipts of market gardeners, yet transforming vegetables from exceptional to general articles of diet will promote the health and consequent well-being of the nation at large.—*BETA.*

ALKALI FOR AN OLD APPLE TREE.

In considering the growth of organisms, the action of the alkalis is to be looked upon as scarcely less important than that of air and water. Lime is the great animal alkali, and potash the vegetable one; its old name of vegetable kali expressed that fact, and all the potash of commerce is well known to be derived from wood ashes. The importance of potash as a manure has been frequently overlooked by farmers, who rarely know the large amount of this material found in grass, grain crops, leaves, barnyard manure, roots, and fruits. How potash acts in plants, in conjunction with carbon and silex, to form woody fibre, starch, sugar, and oil, is yet unknown to chemical observers, but the fact of its action is beyond a doubt.

Liebig long since pointed out that the chief cause of barrenness is the waste of potash carried off by rich crops, especially tobacco, with no replacement by proper manure. How many millions of pounds of potash have been sent to Europe from the forests of America, and in the grain, tobacco, and hemp! Luckily one alkali may be replaced by another, and we have received a considerable quantity of soda from European seaweed, and in the shape of salt. Latterly, nitrate of soda from natural deposits in South America is brought to us at a cheap price.

The point to which we now call attention is that our farmers and fruit-growers have ignored, or rather have been ignorant of, the importance of wood ashes as a vegetable stimulant, and as the leading constituent of plants. Even coal ashes, now thrown away as useless, have been shown both by experiment and analysis to possess a fair share of alkaline value. According to our observation, if the practice of putting a mixture of wood and coal ashes around the stems of fruit trees and Vines, particularly early in the spring, were followed as a general rule, our crops of Apples, Grapes, Peaches, &c., would be greatly benefited in both quality and quantity, and the trees and Vines would last longer. We will relate only one experiment.

Some twenty-five years ago we treated an old hollow Pippin Apple tree as follows:—The hollow, to the height of 8 feet, was

filled and rammed with a compost of wood ashes, garden mould, and a little waste lime (carbonate). The filling was securely fastened in by boards. The next year the crop of sound fruit was sixteen bushels from an old shell of a tree that had borne nothing of any account for some time. But the strangest part was what followed. For seventeen years after filling, the old Pippin tree continued to flourish and bear well.—(*Scientific American*)

THE EDELWEISS.

THIS, like too many others, has had various names bestowed upon it by botanists. It is now usually mentioned as *Leontopodium vulgare*, but it has also been included by previous authorities in one or other of the genera *Gnaphalium*, *Antennaria*, and *Filago*.

This plant is a native of the highest mountains of the Alps and Pyrenees, and there on their least accessible summits, consequently it has been more coveted than it would have been if easily obtainable. One lady was found dead by specimens of this plant which she had succeeded in reaching. Probably it will cease to be so adventurously sought for since the following have appeared in the daily papers:—

"I write to assure those of your readers that covet the possession of the plant, that it can be most easily grown in England, and requires no special care. In July, 1873, I was at St. Moritz, in the Engadine, and had a small plant given to me that came, I believe, from the Fex glacier. It was quite ten days before I arrived in England, and I carried my plant, with some other alpine roots, in a small basket, watering them occasionally; but had not time to take them out of the basket till I reached home. The leaves of the Edelweiss died down in the winter, and I left it in the pot I brought it in, thinking the root had died too. But in the spring I planted it in a flower border; it speedily revived, and has grown into a large healthy plant. I picked one perfect bloom off it, much finer than I had seen before."

The Rev. H. Smelt, Wilcott Vicarage, Marlborough, states the following particulars of a specimen of this plant now growing in the garden of that vicarage, at a height by Ordnance Survey of only 423 feet above the level of the sea. "The Edelweiss in question was brought from Lucerne in the summer of 1872; it was carried for three days in paper (the little ball of peaty earth nearly dry), in a hat-box to Frankfort-on-Main, where it was potted by a German gardener in German peat, in about the same sized pot as that known to English gardeners as No. 60, after which it had another five days with but very little water in the same hat-box to this place. On arrival it was immediately planted in the open ground. During the winter (1872-73), whenever snow could be obtained it was carefully heaped upon it, and in the following summer I was rewarded with one large perfect bloom. Being allowed, however, to remain too long, it lost its proper shape of a star, and grew into three very irregular asterisks of white felt. This year the very dry cold spring and hot burning summer have agreed with it so well that it produced eleven splendid blooms, standing in nearly a circle round the plant. These were

allowed to open well, and were gathered in June, except one, left, if possible, to seed. The plant is very healthy, but I doubt if, even now, the roots extend beyond the German peat. Every tale has its moral. The moral of this is that, instead of searching for Edelweiss from 7000 to 10,000 feet above the sea, people may find it at 423 feet, and, for aught I know, lower; and, instead of breaking their limbs and bruising their persons on the rugged Alps, they may, if they like, walk across their own English lawns and pick it. I imagine, however, that this will go the way of most morals to tales. It is the spice of danger which makes it *edel*—noble—and urges men and women to try and get it."

Leontopodium vulgare belongs to the Natural Order Compositae (*Antennariaceae*), and the *Syngeneia* *Polygamia enperflua* of Linnaeus. The name *Leontopodium*, literally "The Lion's Foot," refers to the soft tufted heads of flowers. Its botanical character is founded on the same. Flower-head terminal, enveloped in woolly bracts.

It is single-stemmed, with leaves linear-lanceolate in form, and downy on their under side. The flowers are stalkless at the summit of the stem; they are white with yellow centres, and encircled by hairy calyxes and cottony bracts. The entire plant has a grey appearance.



Fig. 110.—EDELWEISS (*LEONTOPodium vulgare*).

IRON SASHBARS.

IN answer to an inquiry in THE JOURNAL OF HORTICULTURE, page 217, as to iron sash-bars, a greenhouse and vinery with cast-iron framework and bars, which has been long under my observation, has the disadvantage of requiring paint oftener than wood; and when this essential is neglected any drip from the iron on the plants is injurious. I am not aware of any other objection.

The late Mr. Errington many years ago, showing me over the houses under his care, one of which was constructed with copper bars, observed to me that he found nothing beat wood for such purposes.—V.

STRAWBERRY FOR LIGHT SOILS.

I AM glad to observe that Mr. Taylor so conclusively confirms what I ventured to advance some time ago, and now reiterate, that President is the most useful light-soil Strawberry in cultivation. On a light soil I can get double the quantity as compared to any other kind, and of excellent quality. It is my standard variety, and like Mr. Addison with Lynn's Black-eyed Marrow Pea, "I mean to stick to it." But on heavy soil it is another thing. Visitors who have seen the crop, and taken runners and planted them on strong soil, have been disappointed. On such soils it is evidently not at home. In a fine Strawberry garden I saw a long line of President, and did not know it. "Why," said the gardener, "they are the very plants you gave me." It was a row about 30 yards long, and I am quite certain that at the same time, with some of the same aged—that is, one-year runners, I had double the quantity of fruit on rows one-third the length; his being in fact almost barren, mine being literally laden with fine produce. The change was so marvellous that I hardly dare mention it, but now Mr. Taylor gives a parallel example, and has drawn it out.

In July I planted runners of President, Sir J. Paxton, Vicomtesse Héricart de Thury, and Dr. Hogg. President has already taken the lead; its crowns are finer, and the crop will be larger than the rest. They are planted in triangles of a 6-inch base, with a clear distance of 2 feet from clump to clump. Next June they will have all the appearance of two-year-old stools, bearing a heavy crop of fine fruit. The year following the produce will be more numerous but smaller, and as soon as it is gathered the plants will be cleared off. By planting annually and removing biennially I can get more and better fruit than by any other way, using President as the staple crop. With heavy ground I should certainly not rely on President, neither could I get such good crops with any kind by one year's runners.—J. WRIGHT.

GIVE AWAY YOUR SPARE PLANTS.

At this season many plants in gardens, both large and small, are dug-up and thrown out. In the garden here (Ramornie) some thousands of bedding Geraniums, &c., are annually thrown out; those for next season being propagated by cuttings. This year intimation was sent to a number of schools in the neighbourhood that, in order to encourage a love of flowers among the young, any scholar coming to the garden between 5 and 6 p.m. would receive a present of two Geranium plants. Some hundreds of children have come, and have been made happy by getting two plants for their own, to watch and care for. I write these few lines in order to suggest to others a pleasant way of disposing of their surplus stock.—A LOVER OF CHILDREN.

PROLONGING THE BEAUTY OF CUT FLOWERS.

FULL of this subject, we happened to mention it to an "old lady," who "had sailed her east and sailed her west," and immediately on hearing it she used the usual interjection, "La—that is simple enough! When I was on the Continent many years ago I noticed a French housewife filling a vessel with boiling water and immediately plunge some faded cut flowers therein. Curious to get the reason, I made inquiries of the woman why she used hot water. Her reply was, 'Why, they last much longer, madame.' We thanked the "old lady" for her information, and at once proceeded to make the experiment. We therefore cut the following flowers:—*Salvia patens*, *Mignonette*, *Stocks*, *Asters*, *Petunias*, *Roses*, *Tagetes pumila*, *Calceolarias*, *Pentstemons*, and *Phloxes* of sorts, and placed them on a garden seat fully exposed to the sun during one of the hottest days of the past July. The following day they were taken, looking withered and almost dead, and plunged (the stems) into a quantity of boiling water. In a few minutes the effect was wonderful; the stems stiffened, the flowers opened, and the leaves became healthy-looking and wax-like in appearance. They lasted much longer than we expected; for after ten days had fled they were as fresh-looking as ever.—S.

VINE GRAFTING.

LAST year I gave an account in this Journal of the effects of grafting a Madresfield Court Vine on a Black Hamburgh. Both Vines are in the same position as last year—i.e., the Madresfield Court is in a large tub, and the Black Hamburgh in a pot. The Madresfield Court is grafted on to the Black Hamburgh, the ends of both Vines being allowed to grow beyond the graft. The berries of the Madresfield Court are, again, round, or rather spherical, and with but very little Muscat flavour. This autumn Mr. Thornton, of the Heatherside Nurseries, has seen these Vines twice, and has made the following suggestion as to the cause—that, as the Madresfield Court is a sport, and the Black Hamburgh probably a true type, the sap of the Madresfield Court as it passes through the Black Hamburgh undergoes a change, and as it returns to the Madresfield Court carries with it the properties of the Black Hamburgh; which, if it is the case, may lead to further discoveries in plant culture. The leaves of the Madresfield Court, however, have undergone no change either in shape, or, when mature, in colour.—OBSERVER.

A VETERAN ROSE-GROWER.—At the recent meeting of the Royal Isle of Wight Horticultural Society, the first premium for Roses was awarded to Mr. Edward Meehan, who for nearly forty years has had charge of the gardens and grounds of St.

Clare. During this time he has been one of the leading exhibitors in the above Society, and, though the competition has been often severe, he has, with few exceptions, taken the first premiums for Roses as a regular thing. We think this feat probably unequalled by anything in the annals of competition. To take a premium for the same thing—and several a season—annually for a period approaching forty years, ought to entitle one to a life interest in it.

CARCLEW, CORNWALL.—No. 1.

THE RESIDENCE OF COLONEL TREMAYNE.

CORNWALL presents a greater extent of coast line than any other county, for, stretching as it does to the west a distance of quite eighty miles in a straight line, until its extremity may be regarded as a point, it has the sea on both its northern and southern sides; and it has also the peculiarity of being joined by only one other county in England, Devonshire. Apart from the sinuosities of its coast line, on the south side it is much broken into creeks or inlets of the sea, or, if the reader will have it so, small tidal rivers, which carry salt water a considerable way inland. These are so numerous that sea views, or views of tidal rivers, are so common that most places of note along the south coast possess one. The large and noble estuary of the Tamar at Plymouth, dividing the two counties of Devon and Cornwall, has its counterpart at Falmouth, whose noble harbour has been long regarded as one of the most important in the kingdom, while between the two are many creeks or inlets, too small, it is true, to admit the larger class of commercial craft of the present day, but sufficiently capacious to give an interest and importance to the landscape; besides which the bluff rocky shore, defying in many places the landing of an hostile army, has also its beauties, and when we call to mind the many substances of which that natural bulwark is composed, we may pause and wonder at the natural riches so closely heaped together in this remote corner of our island, and at the same time not feel surprised at the early nations of the earth making their way thither for its mineral wealth.

But setting aside its early or even more recent history, Cornwall has at all times been famed for the mildness of its climate in winter, and, consequently, its suitability for the cultivation outdoors of many species of plants too delicate to stand outside elsewhere. But as if a sort of counterbalancing agent withheld the ideal of perfection from each and every place, Cornwall has also its drawbacks in the shape of high and destructive winds—winds of a kind that punish with great severity everything that erects itself above the level of neighbouring objects, as, for instance, a tall-growing Silver Fir or Douglas Pine that aspires to overtop the Oaks by which its lower extremities are sheltered or surrounded, is sure to have its head unmercifully dealt with whenever it shows a few feet above them, besides which high winds are so common that their violence is even felt in the flower garden, and sad results often follow. But there are features about Cornwall which cannot fail to interest the horticulturist. He sees there trees, shrubs, and even dwarf plants often withstand the winter, which elsewhere in England are carefully kept under glass, while certain classes of plants which continue their growth late in the season, never fairly go to rest, which is much to their detriment, and I was told some kinds of ordinary herbaceous plants had their growing period prolonged so much that the usual rest Nature intended them to have not being forthcoming, a sickly growth ending in death was often the result. Nevertheless, there are many things to admire in Cornwall, both in its natural characteristics and in the advantage that has so often been taken by wealthy individuals to turn them to good account. Many of such places are of recent growth; others present a more ancient aspect; and some carry a history of their own backwards to a remote period. Such a place is the one now under consideration.

Carclew, the residence of Col. Tremayne, was of considerable importance in the early part of the century, but to trace its history further back, we may say Carclew is in the parish of Perran-ar-worthal, near the south coast. St. Perran was the most distinguished of the Irish missionaries who converted the people of Cornwall to the Christian faith. He finally resided and died at another locality in the county, also named after him—Perran Tabuloe. Arworthal means "the celebrated river." Carclew in early records is spelt Cruglew, which is literally "an enclosure of mounds or barrows."

The earliest-named possessor of Carclew was Dangeros, a

Norman, and from his co-heiresses it passed to David Rendantin, in the reign of Henry IV., the Bonithons, and Heales. Jane Heale, by marriage, brought the estate to Samuel Kempe, Esq., of Penryn, who commenced erecting the mansion, but died in 1728 before it was completed. In 1749 Carelew was purchased by one of the Lemon family, and descended to Sir William Lemon, Bart., who died in 1824. He greatly improved Carelew, and through one of his daughters it passed to the present possessor.

The approach to Carelew from the Perranwell station on the Falmouth Branch of the West Cornwall line of railway is first through some two miles or more of excellent roads, for I may say the best possible material for road-making abounds in this county—granite, which is largely dug but only a short way from where we now are, and its presence in such abundance tells importantly on the character of the county, for it forms the ordinary building stone, more or less mixed with a bastard variety found in connection with it,

and easier to work; but it is a common thing to see pillars of granite set up as ordinary gate-posts to the fields, and stiles and stepping-stones are invariably of this material. But it is not the only rock which is met with about here; railway cuttings and other excavations reveal quartz in greater or less abundance, with slate of different degrees of hardness, but much of it too soft for anything but for ordinary walls; while other substances having local names abound, the surface soil in many instances not presenting the most fertile look; but aided by fertilisers, and, what is more, assisted by a climate perhaps the most genial that can be found in so northern a latitude, things attain a good growth, and such as do not require the period of rest above alluded to are often kept in a growing state all winter. This is especially the case with certain kinds of vegetables and other plants of a similar growth; and it is just the home for all winter and early spring-flowering shrubs, as well as for the whole family of Ferns, to which the abundance of moisture is particularly welcome;

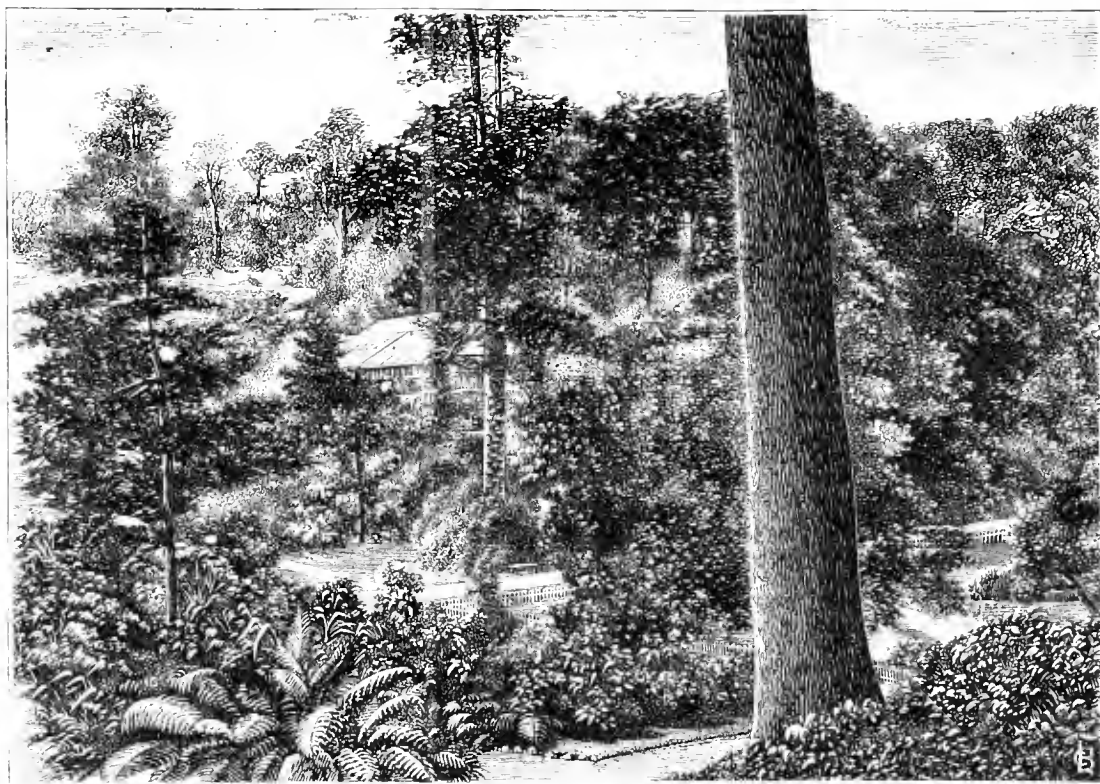


Fig. 111.—CARELEW.

but we will now endeavour to describe the place and its surroundings.

The mansion of Carelew occupies a slightly elevated position in a much-diversified park, the major part of which is profusely interspersed with trees. Its external appearance presents an aspect of durability such as few places of a like kind can boast of, granite of the hardest being used in the building, and the steps, pillars, and other objects are of the same durable material. The carriage-road, after entering a neat and commodious lodge, makes a considerable *détour* to the left in order to avoid the high ground that would intervene if a straight line were attempted, and first passes through a considerable distance of park plentifully sprinkled with trees, more especially the eminences, which, being mostly clad with Oak, give an impression in the far distance of some gigantic Fern occupying the site, the tint being much the same; and although the trees are large, most of them such as a shipbuilder would be glad to get hold of, yet the tops are as even as if by some magical hand they had been clipped to the same height from the surface, thus showing, as my worthy cicerone informed me, that the winds destroyed everything attempting a higher altitude than its neighbour. I have mentioned Oaks as the prevailing trees, but at Carelew there are some fine groups of splendid

old Scotch Firs. Many of them would compete favourably with much that is imported in point of size; notably so in one or more avenues by the side of the carriage-road of this, perhaps, still the best of all our Conifers. But we proceed along an excellent carriage-road composed, not of heterogeneous gravel, but of pure quartz, broken into the required size alike for comfort in walking and to allow wheel carriages; in fact, I may say the roads in Cornwall which came under my observation were all remarkably good, although I fear I cannot say the same of its railways, or rather their management.

But we are approaching Carelew, and passing another gate enter a portion of the ground partly dressed and abounding in fine trees, common and choice Rhododendrons, and the many et-cetera which an enthusiastic owner planted at a time when horticulture was not so fashionable a pursuit. All honour, therefore, to Sir Charles Lemon, whose name as a patron of gardening stood very high the first quarter of the present century, and subsequently until his death, when the property fell into the possession of its present spirited proprietor, who, in addition to being well versed in the knowledge of the plants cultivated indoors, is likewise equally at home with those outdoors, and neglects nothing likely to conduce to their welfare, or to keep up the dignity of the place by judicious

addition. The carriage-road I have alluded to, after some gentle and easy curves, is carried along by the side of a piece of water, on the opposite side of which Ferns luxuriate as Ferns only do in Cornwall, and a water-wheel for the purpose of supplying the mansion and offices with water adds to rather than detracts from the scene before us, while ever and anon the eye is arrested by a fine Douglas Fir. This might possibly in time rival those in Western America were it not for the mischievous Cornish winds. But we pass on, and leaving some of the offices to the right, find ourselves confronted by a noble mass of Ferns, in which many of those elsewhere grown under glass were here luxuriating in great abundance. Notable as one of the most conspicuous, and said to be still more so at Christmas, was the dark-leaved Magellan Fern (*Lomaria magellanica*), which I was told was exceedingly fine in midwinter. *Dicksonia antarctica* and *Woodwardia elegans* were also amongst the outsiders, as well as many others, the space being large. A peep over the fencing at this place also revealed some magnificent specimens of *Hydrangeas* in the front garden of the Agent's house, and, contrary to my expectation, they were mostly pink, or with only a small proportion of blue ones; and although I subsequently met with many of the brightest azure colour, the idea that all *Hydrangeas* in Cornwall are blue is an erroneous one.

But our way is still onward, and passing through the shade of some noble trees of various kinds, the mansion is before us, the carriage entrance being open to the park, as is often the case. The general aspect of the house is Grecian. There is a noble portico with a glass door on the other side, which carries the eye of the visitor right through to a court or flower garden. A broad walk pointing in the direction we have been looking is bordered on each side by a set of circular beds edged with Box, with paths of equal widths between them of coloured gravel, the whole forming a series of the letter S, or what in gardening phrase is often called the Florentine chain; a good margin of grass flanked the figures, the whole being enclosed in a *Laurustinus* hedge, cut, not to shape, but to some condition of order. I was told that without such a screen as this flowers could not exist in such a place owing to the winds, the bulk of the flower garden being in another place. We emerge out of this enclosure, and by a circuitous route pass many noble trees, the private chapel of the family, and get some charming views of the distant country, while a tidal river runs between, which at the time of high water is very interesting, rich and healthy foliage fringing it to the very edge; from another place the position of Penryn is pointed out at no great distance, and the more modern Falmouth a little beyond. Many of these old names conjure up ideas of this county's importance at a time when the present busy hives of industry had not made themselves a name, for it may be mentioned here that of so much consequence was the county at one time, that as many as twenty of its boroughs sent two members of Parliament each, this ancient town, with its narrow and precipitous streets, being one.

Following our intelligent leader, Mr. Palmer, the able gardener at this place, we find we have been making a circuit of the mansion and its adjuncts, and returning near to the front of the dwelling occupied by the Agent, we find we are in the immediate vicinity of the gardens. First of all we enter upon one of the two terraces which compose the flower garden proper, and here we pause and look around us; a cursory view will inform us that we are on the side of a gentle incline, which at a time when the formal flower garden was the rule of the day, had been made into two terraces, both being surrounded by substantial stone walls, low in the case of the one between them, and also the front of all, while the ends are somewhat higher, but not so high as the back one of all, which, with other accessories, acts as a shelter. A basin fountain occupies the centre of one, if not both, of the parallelograms, with ample flights of steps between and leading out of these. The whole of the wall is of the ever-prevailing "granite," and although it has been built most likely half a century, its appearance is still good—certainly more so than the whitewashed plaster objects we often see in a similar position elsewhere. We are soon absorbed in the contents of the beds, or rather in their surroundings, for we have seen so much of the fashionable gardening of the present age that we turn with something like relief to any departure from the beaten track, and here we find Mr. Palmer has judiciously worked-in everything hardy that could with advantage be used. A fine glaucous *Sedum*, superior to the ordinary *S. glaucum*, was so employed; while its *confrère*

Echeveria secunda glauca was said to be all but hardy here, only succumbing in very severe winters. Golden Thyme was also so used, and an *Ajuga* was brought into requisition; while perhaps the most ornamental plant of all at the time of my visit was the dark-leaved tall *Lobelia* called, I believe, *L. St. Clair*, very fine crimson. There were also good purple ones elsewhere, while I was pleased to see the *Calceolaria* quite itself in Cornwall. Of course *Geraniums* of the usual class were duly represented, and a very pretty carpet bed formed the centre of one of the gardens, in which Golden Feather, *Alternanthera*, and other low-growing plants did their part; but, inquisitive like, I looked over the wall, and partly over it and partly upon it was one of the most magnificent *Pampas Grasses* I ever met with, which was just showing its plumes; but what made it more remarkable was the fact of its ripening its seeds and their sowing themselves, and coming up in all manner of places, some on the gravel walks, and some in the interstices between the stones of the wall, although the latter was very closely jointed. Mr. Palmer told me he had planted many of those self-sown plants out, and they did very well.—J. ROBSON.

NOTES AND GLEANINGS.

THE want has long been felt of a common centre for all who are interested in horticulture, and various suggestions have from time to time been made on the subject. We are glad to find that at last something is likely to be effected. A new Club, which will most probably be called "the London," is contemplated. It will be located in some central position near Charing Cross, and will afford its members the facilities and conveniences of a west-end club. Matters are so far advanced that several gentlemen well known in the horticultural world have consented to act on the Council, and a meeting to determine rules, &c., will shortly be held. The probable subscription to country members will be two guineas, to town members something more. After the first hundred names are enrolled there will be an entrance fee. Gentlemen wishing to give in their names can do so at once to the following members of the Council—Rev. S. R. Hole, Cauntton Manor, Newark; Dr. Masters, *Gardeners' Chronicle*; Dr. Hogg, *Journal of Horticulture*; Mr. Harry J. Veitch, Chelsea; W. A. Lindsay, Esq., Royal Horticultural Society; Mr. James Cutbush, Highgate; Sir Edward Lee, Alexandra Palace; Thomas Laxton, Esq., Stamford; Mr. Charles Turner, Slough; or to the Rev. H. Honeywood Dombrain, Sec., Westwell Vicarage, Ashford, Kent.

— It is stated in an American paper that a chalk mark, at least half an inch in breadth, around the upper edge of a sugar bucket, barrel, or other vessel will exclude ANTS from the interior, as these pests cannot pass the bar. It is equally effectual along the edges of shelves. Those who are troubled by ants can easily try this mode, and we shall be obliged by their informing us of the result.

— MR. JOHN HORNE, of the Botanic Garden, Mauritius, who is now on a botanical expedition in the Seychelles, writing to Dr. Hooker, says that he has visited the islands of Silhouette, Praslin, and Félicité, searching them from the seashore to the tops of the highest hills, in Silhouette up to 2200 feet, at which elevation *PITCHER-PLANTS* abound, hanging in immense clusters over every stone, bush, and tree. Flowers of these *Nepenthes* were obtained, and arrangements made for procuring a good supply of plants. When these materials come to hand it will be seen whether the *Nepenthes* of Silhouette is different from the *N. Wardii* which grows in Mahé. The tops of these mountains where the *Pitchers* grow have a perpetual moisture hanging over them, being almost constantly enveloped by mist and rain.—(*Nature*.)

— According to the *Belgique Horticole*, Dr. Candèzi has invented a small photographic apparatus, which he calls a "SCENOGRAPH," which consists simply of a stick and of a camera the size of an opera-glass. To photograph a plant or other object, it is sufficient to place it in the focus of the scenograph for a minute or two. The negatives, it appears, can be purchased ready prepared.

— VERY few people are aware of the immense extent of land occupied by *VINEYARDS* in France, Spain, Germany, and elsewhere. The following statement made by a correspondent of the *Times* will give some idea of the extent of its Vine-growths:—"This is a season when the thoughts of millions of Frenchmen are fixed upon the vintage—a subject of immense importance in this great wine-growing country, the wealth and prosperity of which depend so largely on the results of the

Grape harvest. France may well be proud of its vineyards; in quantity, quality, and variety it is the queen of wine-producing countries. 'From the plains of Champagne to the slopes of the Bordelais,' the *Economiste Français* lately exultingly exclaimed, 'from the banks of the Loire to those of the Rhône, our beautiful sun gilds with its rays upwards of two millions of hectares of Vines, affording occupation to more than seven millions of labourers, and producing as much as seventy millions of hectolitres.' This is admitted to be a maximum, which has only once been attained, in the year 1869. The years 1847 to 1857 formed an exceptional series, of which the earlier years produced some of the finest vintages then known, while in the later ones the oidium played havoc with the Vine. The product in 1851 was less than eleven millions of hectolitres (the hectolitre is twenty-two gallons), and in 1855 little more than fifteen. The eleven years from 1863 to 1873 yielded 592 millions of hectolitres, an annual average of fifty-three millions; and even 1870, in spite of the war and occupation, attained that quantity. The worst vintage of that period was in 1873—less than thirty-six millions; but it seems probable that 1874 will compensate in great measure for that large deficiency. The Vine covers more than 4½ per cent. of the surface of France, of which only ten départements produce no wine. The number of proprietors of vineyards, according to the last census of which I find a record, was upwards of two millions in 1829. There is no important difference in the extent of vineyards in 1851 and at the present day, and the fluctuations during that interval have been trifling. The smallest surface planted with Vines during those twenty years was in 1870, when it was only just over two millions of hectares, whereas in some of the previous years it had ranged as high as 2,300,000. A hectare nearly equals 2½ English acres, so that there have been sometimes 5,750,000 acres occupied as vineyards.

— The opening of the School of Horticulture at Versailles, which was to have taken place on October 1st, is postponed till December 1st.—(Nature.)

NOTES ON VILLA AND SUBURBAN GARDENING.

THE frosts that succeeded the rain on the 21st inst. have very much altered the appearance of the flower garden, for while Dahlias, Cannas, and many other plants of large growth and foliage have been blown to pieces, the most tender of the dwarf-growing bedding plants have been cut down by frost, notwithstanding that most of the Geraniums have escaped injury, and may yet be induced to put on a brighter appearance. The dislike of most people to seeing the beds made bare so early in the season, will induce them to give another dressing and trim the plants up once more, and if frost keep away the beds will look much better than the naked earth. Where Dahlias are much broken about the branches had better be cut off, and those remaining should be fresh tied-up. I am not an advocate for taking up either Dahlias or Cannas too soon; the middle of next month is quite soon enough; the roots become better matured. But if severe frost should cut down the tops to the ground before that time, protect the roots by coal ashes; or if these are not to be had, throw a few inches deep of the garden soil over them. Make sure now without delay that all the cuttings of every sort wanted have been obtained, and if any stock is likely to fall short of what will be wanted, either propagate more or take-up the old plants before it is too late.

Verbenas in frames are liable to the attacks of mildew at this time of the year; immediately it is discovered dust the leaves with powdered sulphur. I generally keep my stock of these plants in the cold frames all winter, together with *Calceolarias*, variegated *Alyssums*, *Gnaphaliums*, and *Pansies*. The frames are stood upon a dry bottom and filled half full of some rough material, then coal ashes are placed on the top of these, the pots put on the ashes, and, of course, every opportunity is taken to give all the air possible, and several times during winter the pots are taken out, and both these and the plants cleaned if needed. Plenty of air circulating among the pots, and not standing them closely together, are good means of keeping away mildew, and my plants in spring cause much less trouble. Being very short of house room, I find this method of great advantage. All the other plants named above are not kept in pots, but the bed is made-up inside the frames to within 8 inches of the glass, with 2 inches of finely-sifted sandy soil on the top of other rougher material. The cuttings are dibbled into this about 2 inches apart and made firm, watered, and kept close for a time. They are never allowed to flag from the sun heat. If they show signs of dryness in the leaf the lights are thrown off in the morning and the cuttings sprinkled with water. This keeps them so fresh that they are not long before they take root.

My cuttings of *Calceolarias* have only just been put in. I always defer the work as long as possible, and feel myself satisfied if they are rooted by about Christmas. Now, as these plants are kept in the frames all winter, there is need of protection to exclude frost. This is done by what in the London nurseries is called banking-up. A lining of rough dung, or dung and earth together, is laid firmly round for about 18 inches in width, reaching to the top of the frame; it would require a very severe frost to get through that thickness. Then the glass is protected by mats, and on these is laid a little dry straw or rough clean litter, such as may have been used in the stable for one or two nights. Some persons keep the commoner sorts of Geraniums in frames also through the winter, but they should be treated like *Verbenas*—that is, be grown in pots and set on a very dry bottom elevated close to the glass.

Cinerarias are yet doing well in frames, though they will damp-off if not watched; *Primulas* the same, but in a short time they will be taken into the house and placed on a shelf near the glass, where their flowers will soon open. I now come to the herbaceous *Calceolarias*, which are, perhaps, the easiest of anything to preserve in a cool frame or pit during the winter. They grow very fast at this time of the year, and must be potted-up frequently, for if allowed to become pot-bound too soon they turn yellow and start-up a flower-stem prematurely. These plants are comparatively hardy, and I have more than once seen plants with a piece of ice lying in the heart. They will thrive in a rich loam with finely-sifted manure added in the proportion of one part in four, and made workable by adding sand to it.

Strawberries in Pots.—There are many villa gardeners who ought to pay more attention to ripening the plants off a little. I do not mean to dry the plant up so that its leaves shrivel, because that alone would ruin the prospects of a crop of fruit, but the plants should be taken up and the pots placed on a hard bottom of boards, still out of doors; their roots cannot then run through the bottoms of the pots, but the crowns increase in size very much at this time of the year, and the plan of standing them up in the way I mention so far checks their growth as to leave the plant nothing else to do but to mature itself. At no time should Strawberry plants be allowed to become dry at the root; the object should be to preserve the roots fresh as they are made at this time of the year.—THOMAS RECORD.

DOINGS OF THE LAST AND PRESENT WEEKS.

HARDY FRUIT GARDEN.

WE have now had sufficient rain to penetrate to the subsoil, and all fruit trees to be removed should be lifted at once. The trees to be benefited by removal are those which have been planted a few years only, and have a tendency to grow more to wood than to fruit buds. There are also older trees which have the same evil tendency. Almost under any circumstances the same variety of tree has a woody character; of such are Tower of Glamis, Blenheim Pippin, &c., amongst kitchen Apples. Amongst Pears, Plums, and Cherries there are varieties having the same fault. Varieties that have a gross habit may be checked and thrown into fruit-bearing when young by grafting on dwarfing stocks—viz., the Apple on the Paradise, the Pear on the Quince, and the Cherry on *Cerasus Mahaleb*. It will at the same time be necessary to state that many varieties of Pears will not succeed on the Quince until a variety that thrives on it has in the first place been worked on the latter. Gentlemen in the trade know the peculiarity of each tree, and this matter can safely be left in their hands, but amateurs and others who have leisure can often find a source of enjoyment in budding and grafting trees of their own. There are also many varieties of Apples and Pears that are prolific in all soils. Lord Suffield, Cellini, Dumelow's Seedling, Hawthornden, Cox's Pomona, and many of the best dessert Apples are sure croppers, and such only should be planted, especially in small gardens and in positions where the trees are intended to grow large. Lastly, those trees that have shown signs of canker before they have arrived at the meridian of life would often take a new lease of life if their leading roots were brought nearer the surface, and some suitable loam that has not already grown fruit trees were placed amongst the roots. When it is intended either to remove or root-prune a fruit tree, the first operation is to dig a trench round it, taking the radius of a circle at the extremity of the branches, and there digging out a deep trench. The larger the tree, so much the deeper ought this trench to be; from this work under the roots to the centre of the tree, and with a spade cut through all descending roots. If it is intended to replant the tree in another situation the same care is requisite to save all roots that would be immediately useful.

American blight is best attacked at this season. It ought not to have a place in any well-managed garden; it must and can be removed from young trees, but cankerous old subjects that are badly infested are only fit for the fire. Our plan is simply to dress the part affected with boiled oil, which is fatal to the insect. The buds and young wood must not be thickly dressed

with this, otherwise both will suffer. *Scale* on Pear trees may be removed by syringing them with water at 150° in which soft soap has been dissolved; or the water may be obtained in quantity from the laundry. This will not be quite so strong, but it costs nothing except the labour of carrying it to the trees, and a few more applications will be quite as effectual.

As soon as possible we shall look over the wall trees, and any pruning required will be done as soon as possible; afterwards any branches that require nailing will be looked to. Nothing has a more untidy appearance about a kitchen garden than branches hanging loosely from the walls, and the trees unpruned through the winter months. Of course, gardeners are the creatures of circumstances, and cannot do this or that work exactly at the time it ought to be done. At the same time let all pruning be early; the most of ours is performed in summer and autumn, excepting Gooseberry and Currant bushes, which are pruned in mild weather during the winter months. It is not uncommon to see gardeners sent to prune fruit trees and bushes during severe frost, but this is bad management and ought not to be persisted in. All wheeling of manure, &c., and trenching, may be done when the weather is cold.

FRUIT AND FORCING HOUSES.

Vineries.—A sharp look-out is kept for mouldy berries in the late houses; much damage results from just one day's inattention to this particular, the mould spreads so rapidly. The lateral growths were so thick on some of the canes that light and air could not circulate freely amongst the leaves. These have been removed with advantage to the fruit, which is now hanging.

Preparing Early Houses for Forcing.—It would be well if the inside of the houses could be painted every second year. This can seldom be done, but the walls may be linewashed and the hot-water pipes painted at but little expense. One pound of flowers of sulphur may be added to each pailful of the wash. House spiders are a considerable nuisance in vineries; they retire into snug corners during the winter months, and in summer the young ones get into the centre of a bunch of Grapes and work their webs amongst the berries.

Many persons may be making Vine borders preparatory to planting the Vines. We should not like to create unnecessary alarm, but now that the *Phylloxera vastatrix* has become established in the country, it would be well to guard against its introduction into our gardens. Of course, no nurseryman would send out plants with this terrible insect upon them, nor would any gardener knowingly send eyes or plants to his friends if it were in his garden; but by way of precaution, our advice is to turn all plants out of their pots as soon as they are received, wash the soil from the roots, then soak the plants overhead in water for two days. This treatment would not be likely to injure the Vines, and would effectually dispose of the *Phylloxera*. The plants after being taken out of the water might be planted out at once, or, if necessary, be repotted.

We might just allude to *pruning Vines*. The usual method is that called the short-spur system. One, two, or three rods are trained-up from one plant at a distance of not less than 2 feet 6 inches from each other, and the spurs are about 18 inches apart. The side branches are spurred-back to a good eye at pruning time, and under this treatment the same rods will continue in bearing for twenty years or longer. It is not desirable to allow the rods to become so old, as young ones can be gradually trained-up in their place. Some varieties of Vines do not fruit freely if trained on this system. Such are that fine old variety Royal Muscadine, Golden Champion, Canon Hall Muscat, &c. Black Hamburgh, Muscat of Alexandria, Lady Downe's, and Mrs. Pince's Muscat may be spurred-in closely and will bear at every branch. If the shy-bearing varieties are trained on the spur system, the spurs must be left with two or even three good eyes.

Figs.—In most large establishments a house is specially devoted to the culture of this fruit, and we have seen Figs grown in large lean-to's and half-span houses of small size. They do well in either planted out in turfy loam not over-rich. It is best under such circumstances to train them to wires as Vines or Peach trees are trained. We cultivate a few in pots, and grow them in any houses where the foliage can be exposed to the light; the trees will grow freely enough in the shade, and will also bear fruit, but it is of very poor flavour. Grown in heat and exposed to the light near the glass, Figs can be obtained of the most delicious flavour. The potting material should be rich, turfy loam four parts, one part rotted manure, and a few crushed bones added to it. Our trees are now being potted, healthy young trees abundantly furnished with roots are shifted into larger pots than they were in; older trees that have gone to the utmost limit the size of our houses will allow, are shifted into pots of the same size as those in which they had been growing, after the ball of earth and roots has been reduced sufficiently to allow of at least an inch of fresh loam all round the sides of the pot.

Orange trees in pots are now ripening-off the fruit, and it is very desirable to keep the leaves clean. Brown scale has been

troublesome, but after sponging the trees well the enemy has been kept at bay by syringing very freely twice daily.—J. DOUGLAS.

PROVINCIAL HORTICULTURAL EXHIBITIONS.

[SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held. Although we cannot report them fully, we shall readily note anything especially excellent, and we wish for information on such specialities to be sent to us.]

	NOVEMBER.		NOVEMBER.
Jersey	11	R. H. S. of Ireland	26
Bury St. Edmunds (Chrysanthemums)	17 and 18		DECEMBER.
Cambridgeshire	19	York	1, 2, and 3

TRADE CATALOGUES RECEIVED.

W. Chater, Saffron Walden.—*Catalogue of Hollyhocks and Roses.*

J. A. Fraser, Linslade Nurseries, Leighton Buzzard.—*Catalogue of Flower Roots.*

G. Prince, 11, Market Street, Oxford.—*Descriptive Catalogue of Roses Grown on the Cultivated Seedling Briar.*

H. Lane & Son, Great Berkhamstead.—*Descriptive Catalogue of Roses, Fruit Trees, American Plants, Conifers, Trees, Shrubs, &c.*

Eugène Verdier fils aîné, 72, Rue Dunois, Gare d'Ivry, Paris.—*Gladioli and other Bulbs, Roses, Pæonies, &c.—Rosiers Nouveaux, 1875.*

Jean Verschaffelt, 131, Faubourg de Bruxelles, Ghent.—*Supplément et Extrait du Catalogue des Plantes.*

Ewing & Co., Eaton and Cringleford, Norwich.—*Rose Catalogue.—General Nursery Catalogue.*

TO CORRESPONDENTS.

* * All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

GARDENERS' CHRONICLE (A. T. Walters).—We are in no way connected with that paper. The proprietors have added our title to the original one of their own, and it causes the mistakes you mention.

BOOKS (F. B. Turner).—"British Ferns, Popularly Described." You can have it from our office by post if you enclose 3s. 8d. with your address.

GARDENING UNDER DIFFICULTIES (J. E. W.).—The soil of your unfortunate garden need not be changed, an annual dressing of manure being all that is necessary to reinvigorate it for the crop of each successive season. With regard to the necessity for protecting your crops from cats, we must refer you to your own experience of the extent and form of their depredations. Some special notes treating fully upon your case are in preparation.

DEFORMED CUCUMBERS (J. S.).—We believe that crooked Cucumbers and enlarged ends with constricted middles are caused usually by a deficient supply of sap. Fewer fruits on each plant and tepid weak manure water to the roots once a week would probably prevent the deformity. Gunning of the fruit is occasioned in the same way, and by the bottom heat being too low.

AMARANTHUS HENDERSONI.—Messrs. Hender & Son, Bedford Nursery, Plymouth, write to ask if that is not a misnomer. They say that they raised the variety, and if so it certainly ought to be named *Amaranthus Henderi*.

ZONAL GERANIUMS.—"W." says, on p. 337, "Never apply liquid manure to a plant when dry; water it first with clear water. Many hundreds of plants are spoiled by neglect of this little precaution." This is new to me as well as to others. Will "W." therefore, oblige us by stating on what his opinion is based, whether practical observation or theory? If the latter, I should feel obliged by an explanation.—J. HARDIE.

HAZEL NUTS FAILURE (Brb.).—The failure in Westmoreland and Cumberland must have been caused by ungenial weather during the time of fertilisation. In the south of England the Nut crop is very abundant.

CENTAUREA ARGENTEA WINTERING (Dublin).—It will not winter in the open ground, nor safely in a frame unless frost be excluded, and the plants have but little water, giving only sufficient to keep them from flagging.

IVY CUTTINGS—SEEDLING BRIAR STOCKS (H. G. O.).—Ivy cuttings are best put-in in September, or it may be done now in a sheltered shady border in light rich soil, in rows 6 inches apart and 3 inches asunder, two-thirds of their length being inserted in the soil. The cuttings should be about 9 inches long for the free-growing sorts, and 6 inches for the small; select the growths of the current year, which may either be the points or the shoots cut into lengths, cutting transversely below a joint, and removing the leaves, not the eyes, from the base upwards; the cuttings are to be placed in the soil, making the soil moderately firm around them. The seedling Briar stocks are budded just above the setting-on of the roots, close to the soil, budding being of course practised higher up the stem if half-standards or standards are required. The seedlings vary in the time of being fit to bud, but for dwarfs generally in July

of the second year. The practice of striking Rose cuttings in the open ground in autumn is very common, and we think you have been very successful. It is difficult to account for a cutting here and there failing. In addition to the seed and cuttings of Briar we should, if you wish for standards, secure some stocks from the woods.

EUCONYMUS PROPAGATION (Inquirer).—The shrub of which you sent a spray is an *Euconymus*, we think *Euconymus angustifolius*, which may be raised from seed sown now or in spring, sowing in light sandy soil outdoors in a sheltered spot. The seeds you will find in the capsules, which are very beautiful. Cuttings of the ripe young shoots will also root if now inserted in a light soil and sheltered border.

CUTTING ARBOR-VITES (Idem).—They bear cutting well, the best time to do which is at the close of March, or early in April if a cold late spring.

ECHIVERIA METALLICA AND CANNA SOWING (K. K.).—This is not a good time to sow the seed, it being best done in February or early March in a hot-bed, the plants being forwarded in a hot-bed, so as to have them strong and well-hardened-off for planting out early in June.

TRANSPLANTING BRIARS NEWLY CROPPED (W. A. W.).—You may move them in November as safely as if they had grown a year after budding. The Rose briars are infested with black mildew or fungus, due to the dry weather. Free watering and syringing overhead will subdue it.

PROTECTING ROSE CUTTINGS (St. Edmund).—The cuttings in the open ground would be better of a light mulching of cocoa fibre between them, acting, as it would, as a protection against frost. The cuttings you have in pots will need to be shifted into larger ones in spring if your intention be to keep them in pots; and the soil for potting we should now lay up in an open situation out of doors in alternate layers of soil and cow dung, having the soil-layers twice the thickness of the cow dung. In February you may turn over, chop-up and mix the compost, and take it under cover so as to have it in good condition for potting—neither dry nor wet, early in March.

WINTERING BEDDING PLANTS IN FRAMES (Ann Oxford).—See what Mr. Record says this week.

CYCLAMEN CORNS (Mrs. B.).—A cool greenhouse is a most suitable place for them. They need no heat to start them.

GRAPE STEMS DYING (One in Trouble).—The stems of the bunches dying is, we think, a consequence of their having been kept too moist, the soil being also wet, especially now the Grapes are ripe, the footstalk sent having the appearance of those produced by Vines, the growth of which is gross. Less moisture would probably afford a remedy. No alkali added to the water would be of use. Expose it to the weather and it will lose much of its hardness.

GRAPES MILDEWING (A. F., An Old Subscriber).—We do not think your Grapes are attacked by mildew, the spots on the berries being caused by damp, which ends in mould. A gentle fire by day with abundance of air, and no fire at night with a little air, will give you an atmosphere better calculated for keeping the Grapes in good condition. At night it may occasionally be necessary to employ fire heat to exclude frost. The drier you keep the atmosphere the better it will be for keeping the Grapes; but avoid a high temperature—50° is ample by day. It will, of course, be higher from sun. Fumigation with tobacco is of no use for mildew; dusting with flowers of sulphur is the proper remedy, applying it to the infected parts. The plants, as you judge, are not conducive to the Grapes keeping well.

APPLE AND PEAR ESPALIERS CANKERED (Idem).—The best remedy would be to lift the trees carefully in November and give them some fresh and richer soil, making firm. If they are old trees the lifting may not be judicious, in which case we should manure well and point-in with a fork. Is not the knotting on the stem and mildew in it American blight? If so, dress the trees with a composition formed of gas tar and dry powdered clay in equal proportions, say a quart of each, adding by degrees two gallons of warm soft water, so as to give a paint-like consistence, and with this dress the trees, applying with a brush, and rubbing well into the knots and crevices, avoiding the buds, though it does not injure them. Is the soil efficiently drained? If not, it ought to be.

CUCUMBERS NOT SWELLING (J. S.).—From the description you give it is to be feared you have the Cucumber disease, or that form of it which results in the fruit being ulcered and ceasing to swell. The soil is probably a little too rich, and the bottom heat strong. In any case, too much support is impelled into the fruit, which is not duly elaborated. Probably the omission of the manure water and a less temperature by 5° at night, the bottom heat not exceeding 77° would, with a good high day temperature, cause the fruit to swell more kindly. Let the foliage be fully exposed to light, not crowding it, and have a less moist atmosphere than you would were all right. It is likely they will improve; but the whole subject is, as regards remedy, involved in mystery.

FRUIT TREES FOR SIDES OF GREENHOUSE (A Cottage Gardener).—You have three Vines trained to the roof; the covering of the sides or ends, we are not sure which, but one is as good as the other, and wired at 6 inches from the glass, would be suitable for a Peach at one side and a Nectarine on the other, obtaining them with such stems that the lowest branches will originate at the base of the trellis. The trellis ought not to go higher than a foot clear of the Vines. If you have not ventilation at the sides, it is likely the fruit of the Peach and Nectarine may be scant, they being subjects which require free ventilation. An Apricot would not do, but you may have Figs if you have no side ventilation, yet the Peaches will be most profitable. A good Peach is *Grosse Mignonne*, a Nectarine *Eldon*.

TRANSPLANTING LARGE THORNES AND BIRCH (J. W.).—The Thornes are more difficult to move than Birch, but both may be moved safely of the size you name, care being taken to commence removing the soil at not a less distance from the stem than 4 feet all round, and retaining all the roots between it and the stem, and if you can preserve some soil to them all the better. The sooner they are moved after the leaves fall the better chance will be given them, watering well to settle the soil about the roots, planting high rather than deep, and securing them well against winds. The best kind of Birch for shelter is the common one, *Betula alba*, which may be cut as desired.

GRASS UNDER TREES (Rimath).—The *Festuca duriuscula* and *Poa nemoralis* sempervirens should be sown in equal proportions, weight for weight, for the purpose named, or nearly so; 2 lbs. *Festuca duriuscula* and 1 lb. *Poa nemoralis* sempervirens for a rod or 3¼ square yards. It is of no use sowing the seeds unless the surface be loosened, giving a light top-dressing of rich soil, and rolling or beating firm after sowing.

WISTARIA, HAWTHORN, AND HORSE CHESTNUTS (W. D. S.).—The fruits

of the two latter could be obtained anywhere that the trees grow. Of the *Wistaria* we can give no information.

STRAWBERRIES FOR MARKET (Strawberry Hunter).—Black Prince is the earliest and most prolific, but it is rather too small for market-garden purposes; Vicomtesse d'Harcourt de Thury, Sir Charles Napier, and British Queen. The last named is well known, and common is the best price in the market.

BONGIVILLEA CULTURE (E. L.).—*B. glabra* will become almost leafless in winter, and should at that time be kept rather dry; in fact, it should only have water to keep the wood plump; but as your plant has been placed in the greenhouse and kept dry we should remove it to the stove, and only give water to prevent flagging, affording a light and airy position. Continue this treatment throughout the winter, and encourage growth in spring, potting early in May and regulating the shoots as they grow, watering freely up to July, then moderately, and, all going on well, it will flower at the end of August or beginning of September, its usual time; but with us it produces its pink bracts from the point of every vigorous growth. Your plant placed in the stove will probably flower between now and Christmas, and kept dry over winter, started in March after it has been pruned, cutting out the weak growths and shortening the others to firm ripe wood, potting when the shoots are a few inches long, and growing-on up to July, then keeping drier, it will flower in September, and, grown well, is a fine subject. Some of the *Bongivilleas* do not lose their leaves in winter, as *B. spectabilis*, which flowers at that time.

HARDINESS OF PIERIS CRETICA ALBA-LINEATA (J. R. Bough).—In a sheltered nook it is hardy, and will survive out of doors in most positions, but is sometimes injured by frost. If you have not a duplicate, the safest plan would be to take up and pot, keeping in a greenhouse over the winter; but if you have duplicates, take up one or more and leave one or two out, and you will ascertain if it is sufficiently hardy to endure an ordinary winter in your locality.

PIRACANTHA AND PYRUS JAPONICA PROPAGATION (Co. Antrim).—Both are propagated by layers, which should be made at once, cutting a notch at a joint, and about halfway through the shoot on the under side, and securing with a peg at 2 to 3 inches below the surface. Let the layers remain until this time twelvemonth. We do not know what you can do to the *Piracantha* to make it bear berries, but it may be too vigorous, and in a position not favourable for fruiting, being shaded by surrounding objects. If not shaded, taking out a trench at 4 feet from the stem and down below the roots will probably check its vigour; the roots being cut there, fill up again, and you will have berries in time.

HARDY ALPINE PERENNIALS FOR ROCKY BORDER (A. G.).—*Anthyllis eriocoma*, *Draba ciliaris*, *Erysimum pumilum*, *Linum saalsolide*, *Lithospermum Gastoni*, *Saxifraga longifolia* vera, *Alyssum saxatile compactum*, *Cheiranthus longifolius*, *Cistus algarvensis*, *Dianthus alpinus*, *D. neglectus*, *Draba aizoides* (if you have *D. ciliaris* this may be omitted), *Erigeron speciosus*, *Gentiana verna*, *Iberis gibraltarica* vera, *Lychnis Lagasce*, *Nepeta Mussini*, *Oenothera marginata*, *Orobancha vernus*, *Oxytropis uralsensis*, *Saponaria caucasica flore-plena*, *Sedum atropurpureum*, *Silene pumilio*, *Statice latifolia*, *Veronica prostrata*.

BRETTSELS SPROUTS AND OTHER CABBAGEWORTS CLUBBING (J. J. M.).—As your garden for sixteen years has been specially occupied with the various species of *Brassica*, no wonder that they are now club-rooted. As the soil is clayey we should by degrees pare and burn the top spit of the whole; then to those parts apply lime and decayed vegetable matters as your gardener recommends, and avoid growing crops of *Brassicæ* in succession on the same plot.

FORCING SEA-KALE (Leeds).—We know of no preference to be given to stable dung and leaves over stable dung alone for covering the Sea-kale pots. Leaves alone would do as well as either, if you have enough to ensure permanent heat.

LA HATIVE CURRANT (A Fruit-Grower).—You might try a few, but we would not recommend to plant it largely. If your land is in the condition you mention it does not require any bones in the holes where you plant the Currants.

LILAC FLOWER (F. Walker).—It is only one of those premature births to which all flowering plants are liable.

WINTERING BEDDING PLANTS IN HEATED PITS (Beginner in Lancashire).—You will have no difficulty in wintering the *Geraniums* and other plants as you have a 2-inch hot-water pipe round the pits, which will be more than ample to exclude frost. You need not have a higher temperature for the plants than 40° to 45°, and they can hardly have too much air in mild weather, giving only water between now and March to keep them fresh and slowly growing. In March you may shift into larger pots, encouraging growth by free waterings. The *Calceolarias* will winter safely, as also the *Verbenas* along with the *Geraniums*, but the *Calceolarias* and *Verbenas* should have the coolest and most airy part. One pit you ought to keep exclusively for flowering plants in pots, at 1 in addition to bulbs we should have a few plants of *Cyclamen persicum*, *Primulas*, and *Cinerarias* for spring bloom to be followed by herbaceous *Calceolarias*, *Pelargoniums*, *Fuchsias*, and other plants, as *Hydrangeas* and the kinds of zonal and variegated *Geraniums* suitable for pot culture, and a plant or two of *Valloia purpurea* to go in autumn for house decoration. The light summer-house will make an admirable cool house for the *Glaudi* you propose for sarding in pots prior to planting out, also *Tritomas*, whilst it will be useful for hardening-off your bedding *Geraniums* and other plants, transferring them from the pits in March or early in April, thereby setting the pits free for raising plants, and especially annuals for blooming in them in summer, as *Balsams*, *Globe Anemones*, *Cock-scum*s, *Celosias*, &c. Your summer-house will also be a good place for *Chrysanthemums* to bloom in, they being grown outside in summer, and removed to the summer-house when they show for flower, or early in October.

PLANTING A CLUMP OF TREES (A Six-years Subscriber).—*Pinus austriaca*, from its dense growth and the fine effect of a mass of its rich dark glossy foliage, forms a fine clump, and we like to see an occasional Larch among a number of it, the spicily air and bright fresh greenery of the Larch affording a fine relief and contrast to it, especially in spring. The best way would be to plant the whole of the trees 6 feet apart, introducing a quantity of "non-sag" Larches, to be removed as the Pines require space. Copper Birch would not be sufficiently effective in front of the dark Pines, but the Pines would tell well. As the situation is sheltered we would choose the American variety called the Western Pine (*Pinus occidentalis*), which is preferable to the Oriental Pine from the rapidity of its growth. Two or three *Liquidambar* placed at intervals near the margin would impart a picturesque appearance to the clump, especially in autumn, when its leaves change to a vivid crimson mixed with purple and yellow.

Cool-house Orchids (R. P.).—*Mastelvalia Hariyana*, *Odontoglossum Alexandrie*, *Odontoglossum grande*, *Laelia purpurata*. These will succeed admirably in a warm greenhouse or cool stove. During growth they require to be kept moist and shaded from bright sun, sprinkling overhead three times a day, and after growth keep drier, sprinkling once or twice a day, the *Mastelvalia* requiring to be kept moist m-l-t. They should be potted in spring, just before or when commencing to grow, in a compost of rough brown fibrous peat, sphagnum, and crocks in about equal parts, keeping them high in the centre of the pots, the pots to be half filled with crocks, the plants placed on the top of the cone in the centre of the pot, the roots only being covered with the compost.

Applying Lime to Garden (R. F. B.).—Lime will effectually clear the ground of slugs if its application be persisted in, dasting with quicklime at frequent intervals any crops attacked by them. Your garden being badly infested, you may now apply it in dry weather, putting it on in its quick but fallen state, and as soon after as convenient dig it in. We should not at this time of year give more per perch (3½ square yards) than half a bushel, which is equal to a dressing of eighty bushels per acre, but we should supplement it in the first dry weather in March with the same amount per perch, and merely point it in with a fork, following up the dressing with dastings as required to keep down slugs, which may have escaped the dressings, as some in the egg state may have done.

Waterproofing Paper by the Aid of Sulphuric Acid.—“I read an article on the subject in the Journal some months ago, which directed to get diluted acid and add the same bulk of water. I obtained the pure acid, and diluted first two of water to one of acid, increasing the water up to twenty-one, still keeping the one of acid, and dipping a piece of paper in each time; and when all the papers were dry none of them presented at all the appearance of parchment, the last ones scarcely altered. Will someone state what the proportions are?—AN OLD SUBSCRIBER.”

Gas Boiler (A. W. D.).—You may obtain a gas boiler that will heat efficiently 100 to 200 feet of 2-inch pipe; but the size that would heat 100 feet would not heat double the number of feet; a boiler of larger size would be required. For economy in heating by gas, 2-inch pipes are too large, wrought iron 1-inch-bore pipes are better, and four 1-inch only hold the same quantity of water as one 2-inch, and have double the amount of heating surface. We cannot name any boiler in particular. Write to those advertising in our columns.

Red Spider on Neapolitan Violets (C. R. H.).—The best remedy is to form a solution of soft soap, 3 ozs. to a gallon of water, and immerse the leaves one by one in the solution, it being contained in a shallow vessel, as a saucer. This is a tedious process, but it is astonishing what perseverance can accomplish. The worst leaves may be removed. A day or two afterwards give them a thorough syringing with soft water, one peck to thirty gallons, stirring well up before use, and straining so that the syringe may not be clogged by any particles of dirt, and in a week you may dust dry soot over the plants and the whole frame, just a little to make them black. The soot will improve the colour and growth.

Insects Attacking Ferns (H. C. R.).—The insect sent is the male of *Sirex juvenes*, a not uncommon wood-boring fly, the larva of which lives in Fir trees. If your statement is correct, that it differs at different stages of its existence it has eaten your Ferns, the fact is new, and it would be very desirable if you would furnish the details of its history, mode of attack, part of the plants attacked, &c. Its larva is a white fleshy grub.—I. O. W.

Names of Fruit (W. Vincent).—The Pear is Dr. Capron, a worthless variety. (*Seetha*).—1, Royal Russet; 2, Franklin's Golden Pippin; 3, Armato Russet; 4, Beurre d'Arenberg; 5, Colmar d'Arenberg; 6, Glon Moreau. (*J. Green*).—The Pear is Beurre d'Espagn. The Apple we do not know. (*Richard James*).—The Grapes you sent are the true Lady Downe's. We do not see anything particular in them to lead us to think there is something wrong. The new edition of the “Fruit Manual” will be ready in a few weeks, but progress having been made with its passing through the press. (*R. C. Bartlett*).—La Joive. (*A. Subscriber*).—Egno. (*G. Dist*).—1, Beurre de Rance; 2, Beurre de Capiaumont; 3, Aston Town; 4, Beurre d'Id. (*T. E.*).—1, Duc d'Angoulême; 2, Jersey Gravel; 3, Northern Greening. (*R. D. G.*).—1, Kerry Pippin; 2, King of the Pippins; 4, Goscar Pippin; 5, London Pippin; 6, Wykon Pippin; 7, Marquise Pippin. (*W. T.*).—1, Striped Vincoulesse; 2, Dandelion's Seedling; 4, Red Downe; 10, Easter Benger; 11, Passe Colmar. (*A Somerset Subscriber*).—1, Triumphant de Jodogne; 2, Swan's Egg; 3, Cassane; 4, Comte de Lamy; 6, Van Mons Leon Leclerc. (*A. D.*).—1, Nelson Codlin; 2, Claygate Pearmain; 3, Golden Noble; 4, King of the Pippins.

Names of Plants (Lady K.).—1, Thuja Lobbiania; 2, Pinus radiata; 3, Cryptomeria japonica; 4, Thuopsis borealis.

POULTRY, BEE, AND PIGEON CHRONICLE.

BRIGHTON POULTRY SHOW.

(From another Reporter.)

THE third annual Exhibition was held this year at the Royal Pavilion, Brighton, and it is seldom we find a building better adapted for this purpose. This year an addition was made to the schedule in the shape of cats and dogs. The combined entries reached 996; had they been doubled ample accommodation could have been found; the light was also exceedingly good.

Dorkings commenced the list, Mr. Ellis winning with a sound pair, well grown, and short in the leg.

In Dark *Brahmas* Mr. Lingwood had an easy victory with a grand black-breasted cockerel; the pullet was also a fine one, well pencilled, and heavily feathered in the legs. The second-prize pen was very young, but they deserved their position, and we hope to see them again when they are more developed. The Light *Brahma* class was a large one, Mr. Lingwood again winning. The cockerel was indisputably the best, but the second-prize pen contained the best pullet. The third-prize birds were small, but pretty; we could not find a pair to beat them.

The Buff *Cochin* class contained but four entries, but the deficiency in numbers was more than made-up in quality. *Cochins*, any variety, a beautiful pair of Whites were first; the Partridge hen in the second-prize pen was well pencilled; the rest were poor.

Game.—The Reds were a fine class. The first-prize birds were very young, and we thought it a great pity they were shown so soon; a more promising pair of chickens we have not often seen. Pen 77 we liked quite as well as the second and third-prize pens. *Gams*, any variety, were moderate. The Pile hen in the second-prize pen we thought the best bird in the class.

The *Hamburghs* were a beautiful lot. The Duke of Sutherland was awarded the first prize in each class for Silvers, which well deserved their position.

Spanish were only moderate. The difference between the first and second-prize pens was very slight.

In *Polish* Mr. Adkins showed two pairs of magnificent Silvers, which secured the first and second prizes.

The *French* class was not a large one. A fine pair of *Hondans* were deservedly placed first.

The Any variety class contained no novelty, but some good birds were to be found. Black *Hamburghs* were first and second, and a fine pair of *Malays* were third.

Game Bantams.—The Red class contained only a few nice birds. The first-prize cock was very neat, and had a beautiful head; his partner we did not admire. In the *Game Bantam*, any variety, a superb pen of Piles were first, and must have run very closely for the cup, which was awarded to Mr. Leno's *Se-brights* in the next class.

The *Sussex* class was a creditable one, but hardly equal to that of the previous year.

The *Ducks* were very numerous and good, the pair of Blacks that secured the first prize in the Any variety class deserving special notice.

The *Pigeon* classes were well filled, the entries in the *Carrier* class numbering fifty-one. Many of the best of the old birds were far advanced in moult, and the Judge must have had some difficulty in deciding between quality and condition. The young class was a large one. We liked the first-prize bird, but preferred pen 379 to the second; a grand Blue was third. The *Pouter* prizes were all taken by Mr. Vander Meersch, but we thought his third-prize pen the best. The *Barb* class was so good that the majority of the birds were noticed by the Judge. The *Dragoon* class was the largest, and here Mr. Graham secured all the prizes. The *Jacobin* class was small, but very good. Here we thought pen 452 should have been noticed. *Fan-tails* were greatly admired, and we should have liked to have seen pen 459 in the prize list. The other classes were all well supported, the Working Antwerps exerting an unusual amount of interest. The points cup was again won by Mr. Vander Meersch, who, we believe, obtained the same honour at the two previous shows.

The judging of both poultry and Pigeons appears to have given satisfaction, and we congratulate the Manager, Mr. Lenny, upon having found such an admirable place for a show, and for the energy and taste he has displayed in carrying out the arrangements.

YORK AND DARLINGTON BIRD SHOWS.—It will be as well to remind intending exhibitors for the forthcoming York and Darlington Shows that all birds entered for the York Exhibition can be forwarded on to Darlington by the necessary arrangements being made with the Secretary of the York Show. Judging from the magnitude of the exhibitions recently held, we may expect to hear of the entries being numerous. The prizes offered by the Darlington Committee are of a tempting kind, being £1, 10s., and 5s. in nearly all the classes, besides a number of valuable special prizes, consisting of a beautiful silver-plated cruet, silver medals, silver-plated cream jug, gold-plated Albert, &c. Every arrangement will be made for the reception and comfort of the choicest specimens, and the birds will be well cared for at the hands of a painstaking Committee before returning. We hope to hear of the entries for both places being large. The entries for Darlington will close on October 31st, and for York, November 3rd. Schedules for both are now ready.

THE POULTRY-KEEPER.—No. 25.

THE BRAHMA POOTRA.

A THICK cloud envelopes the origin of this variety, which seems to me (M. Jacque) to be another variety of the Shanghai.

Introduced into France towards 1853, and a short time before in England; the beauty of its plumage, the shape of the cock and hen, its flesh—preferable, perhaps, to that of the ordinary *Cochin*-China, made it much sought after by many amateurs. The rage for possessing it induced forced production, and the deplorable way of bringing up the chickens contributed rapidly to deteriorate these birds. Inferior specimens are easy to procure by crosses between the *Cochin*-China, White Malay, &c.

The first specimens I saw, and were really what the Brahma ought to be. They had exactly the form and characteristics of the best made Cochins-China, but more developed, because the size was larger. The back of the cock was perfectly horizontal; the shoulders large; the hind part formed by an enormous expansion of feathers on the abdomen, and the thigh feathers were extremely large. The tail very short; the leg short and strong, nearly entirely hidden under the thigh feathers. The shank very large and short, hidden under a thick mass of feathers extending far on the toes; the head and neck small for so large a bird.

The colour of the plumage is not less characteristic. Each feather of the hackle (cock) should be marked with a lengthened black mark, and there is a like one on the back, shoulders, and lance-shaped feathers (*fig. 112*). Feathers marked with a grey pattern, very like those of the Cuckoo Cochins-China, are at the side of the breast, near the shoulders, little sickles, the back part of the thighs, and the feathers of the feet. The feathers of the abdomen and sides are grey mixed with white. The breast is white, and the wing-coverts are marked with black, and the middle and large sickles are of a green bronzed colour; and the down beneath the whole plumage is entirely grey.

The form of the hen is like that of the finest Cochins-China. She is low, large, compact; her legs are strong, short-feathered, and hidden under the thigh feathers. Her plumage is still more characteristic than that of the cock, being very like that of the Partridge Cochins; and I have seen and possessed birds whose plumage was exactly similar, the colour only excepted, so that one might reasonably have called one the Brown Partridge Cochins and the other the Grey Partridge Cochins. To this last is given the name of Partridge Brahma, but most of the variety are white at the breast, on the back, and wings. The pattern of the feathers mentioned does not show on the sides of the breast, the shoulders, the tail-covering, the thighs, and the legs. The flight feathers and the tail are black, and those of the hackle are regularly marked with black, as mentioned in describing the cock. The abdomen is strongly mixed with grey, and the same colour is more visible than in the cock across the white part of the plumage. The comb should be straight and single for the cock as well as the hen. With the cock the hackle, back, shoulders, and lance-shaped feathers should not be yellow, as this is often the case with inferior birds, and hardly the slightest tinge of yellow is admissible.

They have made by a cross between the Black Cochins and Brahma a variety they call the Inverted Brahma. The body is entirely black, and the hackle, like that of the ordinary Brahma, appears very clearly on the deep ground of the plumage. The head of the true Brahma should, both in the cock and hen, have a plumage entirely white, only marked with black on the hackle at the end of the wings and tail. Amateurs have made them as much like as they could to the White Cochins and White Malay, &c. The comb is generally double (Malay), the back at an angle of 45° instead of being horizontal. The hind part is scanty. The leg is long, the feathers flowing, and entirely divided from the thigh feathers. The leg is long and without feathers.

This variety, which I believe is no other than a variety of Cochins-China or Shanghai, is perhaps the best of the different varieties. They lay longer (from forty to sixty eggs). The flesh is good, and the hen above all in the quality of acquiring weight is superior to that of other Cochins. The chickens are extremely home-loving, and not at all impatient of confinement. As to the name of Brahma Pouter, it is that of a river in India.

M. Jacque recommends a Brahma cock to be paired with Hondan and Crève-Cœur hens.

POUTERS, ANY OTHER COLOUR OR MARKING.

I HAVE watched the debate on this subject with great interest; and although I think it is very well understood over the country, still, as it is of vast importance to Pouter breeders, of which I have the honour to be one, I hope you will allow me a small space in your paper to correct what I think has been mystified, surely without intention, but it may be from want of knowledge.

Mismarked Pouters of standard colours seem to haunt one writer to such a degree that he has confounded them with Pouters any other colours than the standard colours or markings. He goes so far as to tax Mr. Huie with contradicting himself, and quotes in proof that Mr. Huie admits that he breeds for Meales, Sandies, and Splashes; but I find that Mr. Huie states distinctly that he neither keeps, breeds for, or ever supported mismarked Pouters. In the name of common sense, will Mr.



Fig. 112.

Stuart insist on calling a perfectly-marked Mealy a mismarked Pouter? He may call it an off-coloured bird if he chooses, but the markings are as perfect as the best standard-coloured bird ever seen. Besides, the mealy colour, I beg to submit, is of a far more delicate and superior colour to many of the slaty Blues, pale chequery Reds, milky Yellows, and sooty Blacks seen too frequently at our exhibitions, and in too many of our model lofts.

I think it is quite plain to all fanciers except those that *winna* see, that mismarked birds are those of the standard markings, such as ring necks, solid breasts, gay and snip, or blaze on the face. These have a class for themselves among their own respective colours; why, then, put them among the "Any other colour or marking class?" This class is intended for the Mealy, Sandy, Chequer, and Splash. Mr. Robert Fulton, who knows the Pouter well, says that the great drawback to the Meales is their low price.

This, I say, is the very reason that they are to be found in the lofts of young fanciers, and in those of the working men. And what has the working man not done for the Pouter fancy? Why, then, exclude them and their birds from our exhibitions? I think if Mr. Huie's argument had had no other object than the encouragement of the Pouter fancy among them, it was well worth the starting and well worth the keeping up of an "Any other colour or marking class" at our exhibitions.

I have only particularly mentioned Meales, but there are Sandies, Chequers and Splashes. As a rule, all these birds are very elegant in shape, and all are of great value to those breeders who know how to make use of them. The three former I have seen marked to perfection. How, then, can they be called mismarked? As to the Splash, it cannot be called either a marked or mismarked bird. It certainly is marked to an extent, as a marked Canary, a Splashed or Agate Tumbler, and therefore it comes in among other markings. Mr. Stuart argues that the Splash Short-face is useful for head and beak properties. True; but had Mr. Stuart not deserted his old love—the Pouter, and had he really understood the mysteries of Pouter-breeding, he would have known by this time the great value of the Splash in the breeder's loft. When men such as Mr. Huie and Mr. Ure, for forty years Pouter breeders, advocate their use for breeding purposes, surely a short-lived Pouter breeder should not venture to say, "We can and will do without Meales, Chequers, and Splashes."—JAMES McCULLOCH, *Moss Bank, Uddingston.*

IRON PERCHES IN AN AVIARY.

THE iron perches in the aviary of "E. J. E., Bishop's Waltham," will not injure the Canaries in the least during frost or cold. We know of more than one instance where they have been advantageously used for many years. They are less likely to harbour insects than wood, more wholesome for the birds, and none the worse if rust accumulates upon them. Being impervious to wet, they are not liable to retain the damp and promote cramp. They are likewise more solid, and act with good effect (likened to a butcher's steel upon his knife), and thus tend to keep down an overgrowth of the horn of the bill. Birds can have no particular choice; iron perches are the same to them as wooden ones. They are not of such a sensitive nature as to become affected with feet being cold.

We may conclude they are not very nice as to their likes and dislikes when we consider the fearfully hot doses of cayenne pepper they partake of. Your birds will be more likely to be affected by a severe frost than through the iron perches; but as you state the aviary "faces west and south"—a favourable situation—the birds will pass through the winter well. Canaries can be acclimatised to almost any temperature. We have known many instances where they have wintered well in aviaries where the ice has had to be broken during the day for the birds to obtain water; but it is an advantage where the birds are provided with a well protected recess at the north or the north-east portion of the aviary. The birds, of course, had been well seasoned in the aviaries during the previous summer and autumn. Canaries can well stand extremes of temperature, and we have known them to be very prolific during the breeding season in a most excessive heat over a bakehouse. The change from heat to cold is the all-important matter to be avoided. The glass on the exposed side of the aviary will sufficiently protect the birds from the cold. Beware of stones. It is always better, where glass is used, to have wire netting. Do not place Belgian birds in the aviary. They are very delicate, and much subject to asthma and consumption. Birds in aviaries should be daily supplied with fresh water, a free use of which will wonderfully harden and improve their feathers. Our idea is a small fountain turned on occasionally, and a little rivulet to carry off the water.

KILMURNOCK POULTRY SHOW.—There are twenty-seven medals and timepieces offered in addition to the money prizes. The only fault we have to find with the classes is, that Cochins and Brahmans are for "any colour." No judge can decide satis-

factorily between the merits of a White and Buff Cochin, or between a Light and Dark Brahma. A still worse mingling is "Polands and Crève-Cœurs, any colour." The entries close on the 31st inst.

BIRMINGHAM PHILOPERISTERON SOCIETY'S
SHOW.

THE twelfth annual meeting of this Society took place at the Burlington Rooms, New Street, Birmingham, on the 21st and 22nd inst.; and although the competition is by the rules strictly confined to members of the Society, and by far the greater number of classes are devoted exclusively to birds of the present year, shown singly, the number of entries exceeded that of any of the preceding years, amounting to more than 450 pens. A still more pleasing feature was that, though the numbers increased, the quality of the birds shown was equally improved. In fact, the owners all being amateurs of known celebrity, this Show is generally regarded as one held annually more especially to determine the relative excellence of the young stock that during the late breeding season has enlisted so careful attention on the part of their owners.

The show room selected this year was unquestionably a very great improvement on those in which this Exhibition has hitherto been held, and the willing help of the amateurs interested was such that, although the Show did not close until after 8.30 P.M., every basket was carefully repacked, and those travelling by rail were safely delivered at the Birmingham railway station and signed for before a quarter past ten, thus completely without loss or mishap of any kind to a single specimen. Among the many gems of the Show was a *Satinette* that has certainly never been equalled in loveliness of feather, and shown in a condition but rarely paralleled; it was successful in taking one special extra prize, and had a cup been offered for the best Pigeon in the Show, beyond question it must have received that premium also. There were also several other *Satinettes* that were of far higher quality than now usually met with. A marked feature of improvement prevailed throughout the *Toys*, among which the most noteworthy were Frillbacks, Pigmy Pouters, Swallows of all the known colours, Blondinettes, Fire Pigeons, Ice Pigeons of every shade of marking, from plain self-colour to the most lovely chequering and perect lacing; whilst among the Magpies were some of the most perfectly-marked Pigeons imaginable, possessing also the advantage of the most solid ground colours, whether red, yellow, or black. A cup, value four guineas, for Flying *Tumblers* brought out the best competition of these local favourites yet seen at a Birmingham show. Mr. W. B. Mapplebeck, jun., secured this cup by taking no less than eighty-four points. *Jacobins* were fine and heavily-filled classes, the Reds being perhaps the best shown of any colour. Both English and Foreign *Owls* have been rarely better classes, and the *Antwerps* and *Dragoons*, for which Birmingham has always held a prominent position, were indeed most excellent, all colours being well represented. Mr. Frank Graham exhibited his well-known splendid Yellow Dragon, that distanced all his rivals in an exceedingly heavy competition. In eighty-four classes it is most satisfactory to state that scarcely an inferior class presented itself, and among the usually recognised highest fancies, the *Carriers*, *Pouters*, and *Almonds* were quite equal to those at the generality of shows.

The weather was exceedingly fine, and we were very glad to see among the visitors many who had travelled long distances expressly to attend this meeting, all of whom frankly admitted they had not anticipated the treat that awaited them in all the breeds shown.

The Judges for the strictly fancy varieties were Messrs. Alsopp, Hewitt, Ludlow, and Yardley; for the Flying Tumblers Mr. Gordon. The whole of the Judges were residents of Birmingham or its vicinity.

SINGLE BIRDS OF 1874.

CARRIERS.—*Black*.—*Cock or Hen*.—1 and Medal, W. Nottage, Northampton.
2 and 3, C. Mugg, Bromsgrove. *hc*, G. F. White-house, King's Heath, Birmingham.
C. J. Watts, King's Heath, Birmingham. *Dan*.—1, C. Mugg. 2, M.
Green, Hexham. *Any other colour*.—1, J. F. While, Birmingham. 2, J. Watts.
POUTERS.—*White*.—1, W. T. Dawson, Egremont. *Blue*.—1, G. Holloway, jun.,
Strat. 2, W. Ridley, Hexham. *Any other colour*.—1, W. Ridley. 2, G.
Holloway, jun.

BARBS.—1, W. Nottage. 2, A. Riddell, Lichfield. 8, J. Peace, Barton-on-Trent.

ALMONDS.—1, J. Peace.
BALDS OR BEARDS.—*Short-faced*.—1 and 2, W. Woodhouse, King's Lynn.
OWLS.—*Foreign*.—1, T. W. Towson 2, J. W. Edge. *English*.—1, W. Ridley.
2, J. Watts. 3 and 4, R. Gough, Birmingham. 4, J. Water, Burslem. *hc*, T. W. Towson; W. Ridley.

TERBITS.—Red or Yellow.—1, T. W. Townson, Bowdon. 2, A. Riddell. 3, C. A. Crafer, Wallington. 4, M. Green. *hr.* W. Teld. *c.* W. Townson. *Any other colour*—1, C. A. Crafer. 2 and 3, W. Ridley. *hc.* A. Riddell.
NUNS.—1 and 2. Rev. A. G. Brooke, Shrawardine *hc.* J. Watts.
JACOBINS.—Red or Yellow.—1, W. Woodhouse. 2 and 3, R. G. Sanders, Levin.

JACKSONS.—*Any of Primrose*.—1 *W. Woodhouse*. 2 and 3, *K. G. Saunders*, Levin.
 BEVERLEY. 4. *W. T. Breddon*, King's Heath, Birmingham. *hc*, *A. A. Vander*
Meersch. *Black*—1 and 2, *E. E. M. Rojds*, Rotterdam. *hc*, *A. A. Vander*
Meersch. *Any other colour*.—1 and 2 *A. A. Vander Meersch*.
 TRUMPETERS.—1, *W. Towerson*. 2 and 3, *A. A. Vander Meersch*.
 DRAGONS.—*Blue*.—1, 4 and 5, *W. H. Mitchell*. 2 *N. Smalnage*, jun., Kel-

brook Mills, Colne. 3 and c. J. Watts. *hc*, C. F. Herrieff, Banbury; W. H. Mitchell. *Yellow*.—1 and 2, F. Graham, Birkbehead. 3, W. H. Mitchell. 4, J. Nash, Walsall. *White*.—1, A. A. Vander Meersch. 2, W. H. Mitchell. 3, G. F. Whitehouse. 4 and c, F. Graham. *hc*, J. Nield. *Any other colour*.—1 and 2, F. Graham. *hc*, C. F. Herrieff.

ANSWERS.—*Dun*—1 and 4, C. F. Herrieff. 2, W. Gamon. 3, W. B. Mapplebeck, jun., Moseley, Birmingham. 4, C. Mugg. *Dun-chequered*—1, W. Gamon. 2, J. Guthrie, Hexham. 3, N. Smallpage, jun. *Disqualified*—C. F. Herrieff.

ANSWERS.—*Blue*—1, J. Watts. 2, J. F. White. *Blue-chequered*—1 and 2, J. F. White.

MAGPIES.—1, M. Ord, Sedgefield, Durham. 2, H. Beldon. 3 and *hc.* J. Watts. c, W. Towerson.
 SWALLOWS.—1 and 3, J. Watts. 2 and *hc.* W. Tedd, Erdington.
 ANY OTHER VARIETY.—1, E. Gough (Satinette). 2, W. Towerson. 3, M. Ord (*lcc.*). 4 and c, J. Watts. *hc.* H. Beldon, Bingley. M. Ord.

MOFF-LEGGED TUMBLERS.—*Rose-rings or Redbreasts*.—1, 2, and c, J. Watts. *hc*, W. Tedd. *Self-colour*.—1, J. Watts. *hc*, W. B. Mapplebeck, jun.; W. Tedd. *Any other variety*.—1, W. B. Mapplebeck, jun.

CLEAR-LEGGED TUMBLERS.—*Long-faced Balds and Beards*.—1, J. Watts. 2, J. F. White. *hc*, W. Tedd (2). *Mottles of any colour*.—1, J. Watts. 2, J. W. Edge. *Any other variety*.—1, J. W. Edge. 2, J. Watts.

SINGLE BIRDS OF ANY AGE.

CARRIERS.—*Black.*—Cocks.—1, Spectal, and 2, P. R. Spencer, Hereford. *hc*, G. F. Whitehouse (2). *Hens.*—1, P. R. Spencer. 2, G. F. Whitehouse. *Dun.*—*Hcn.*—1, W. Nottage.

CARRIERS.—*Any other colour.*—Cocks.—1, J. F. White. *hc*, J. Watts. *Hens.*—1, J. Watts.

POUTERS.—*White*.—Cocks.—1, W. Nottage. 2, G. Holloway, jun. Hens.—1, G. Holloway, jun.
POUTERS.—*Blue*.—Cocks.—1, P. R. Spencer. Hens.—1, P. R. Spencer.
FAN-TAILS.—*White*.—1, P. R. Spencer. 2, J. F. Loversidge. *hc*, T. W. Town-
son; J. F. Loversidge.

BARBS.—1, T. W. Townshon. 2, P. R. Spencer. *hc*, W. Tedd.
ALMONDS.—1 and Special, J. F. White. 2, J. Peace.
BALDS OR BEARDS.—*Short faced*—1, 2, and Special, W. Woulhouse. *Any other variety of Short-faced*—1, R. Gough. 2 and *hc*, J. Watts.
OWLS.—*Foreign*—1, 2, and *hc*, T. Chambers. Equal 1, T. W. Townshon.

English.—1, T. W. Townson. 2, J. W. Edge. 3, W. Ridley. 4, T. Chambers.
 he, W. Tidd; W. Woodhouse. c, P. K. Spencer.

TRABITS.—Red or Yellow.—1, W. Townson. 2, A. Riddell. 3, C. A. Crafer.
 he, J. Watts. Any other colour.—1, J. Watts. 2, C. A. Crafer. 3, H. Beldon.
 he, T. W. Townson. c, M. Green; W. Tidd.

1. A. J. Townsend, *Red and Green*.
 2. Nuns—1 and 2. A. G. Brooke. 3. J. Watts. *hc*, J. Nield, Birmingham.
 JACOBINS.—*Red and Yellow*.—1. R. G. Sanders. 2. T. W. Swallow, Northampton. 3. W. Woodhouse. 4. W. T. Breddon King's Heath, Birmingham.
hc and *C*. E. M. Koyds. *Black*—1. A. A. Vander Meersch. 2 and *hc*, E. E. M. Koyds. *Any other colour*.—1 and 2. A. A. Vander Meersch.

TRUMPETERS.—1, A. A. Vander Meersch. 2, W. Towerson. *hc.* P. R. Spencer.
 DRAGOONS.—*Bluc.*—1, J. Peace. 2 and 3, W. H. Mitchell, Moseley. 3, J.
 Watts. 4, C. E. Herrieff *hc.* W. Gamon. *Yellow.*—1 and *hc.* F. Graham. 2 and
 3, W. H. Mitchell. *c.* C. F. Herrieff. *White.*—1, N. Smallpage, jun. 2, J.
 Watts. 3, W. H. Mitchell. *hc.* F. Graham. *c.* G. F. Whitehouse. *Any other*

Watts.—3, W. H. Mitchell. *n*, F. G. Stanton. *c*, G. F. Mitchellhouse. *Red*
colour.—1 and *hc*, W. Gamon, Chester. 2, W. H. Mitchell. 3, F. G. Graham.
c, C. F. Herrieff.

ANTWERPS.—*Blue*.—1, W. Gamon. 2, J. Nield. *c*, J. Watts. *Dun*.—1 and 2,
 W. Gamon. *hc*, J. F. White. *Blue-chequered*.—1 and *c*, W. Gamon. 2, J. Watts.
Chequered.—any other colour.—1 and 2, W. Gamon.

ANY OTHER VARIETY.—1, R. Gough. 2 and 3, J. Watts.
 MAGPIES.—1, H. Beldon. 2, W. Tedd. 3, M. Ord. *hc*, J. Watts.
 SWALLOWS.—1, C. F. Herrieff. 2 and *hc*, W. Tedd. 3, J. Nield. *c*, J. Watts.
 ARCHANGELS.—1, H. Beldon.
 ANY OTHER VARIETY.—1, R. Gough. 2 and 3, J. Watts. 4, W. B. Mapplebeck,
 jun., Moseley, Birmingham. 5, M. Ord. *hc*, H. Beldon. R. Gough. C. W.

MUFFED LEGGED TUMBLERS.—*Any colour Badges.*—1, 2, and *hc.* W. B. Mapplebeck, jun. *Any colour Saddles.*—1, 2, and 3, W. B. Mapplebeck, jun. *Mottles.*—1 and 2, W. B. Mapplebeck jun. *hc.* J. Watts; W. B. Mapplebeck, jun. *Self-colour.*—1, W. Teed. 2, W. B. Mapplebeck jun. *Roselines.*—1, W. B. Mapplebeck, jun.

Count.—1, W. Todd. 2, W. B. Mapplebeck, jun. *Robt. a. m.* 1, W. B. Mapplebeck, jun. 1, W. Todd. *hc*, J. W. Edge. *Blac or Silver*.—1, W. B. Mapplebeck, jun. *Any other variety*.—1, W. B. Mapplebeck, jun.

CLEAR-LEGGED TUMBLERS.—*Balds or Beards*.—1 and 2, J. Watts. 3, J. F. White. *hc*, W. B. Mapplebeck, jun.; W. Rudley. *c*, W. Todd (3). *Mottles of any colour*.—1 and 3, W. B. Mapplebeck, jun. 2, J. W. Edge. *Any other variety*.

ANY OTHER VARIETY.—1 and 3, W. B. Applebeck, jun., 2, S. W. Edge. Any other variety.—1, J. Watts. 2 and hc, W. B. Applebeck, jun.

SELLING CLASS.—Carrier, Pouter, Barh, or Short-faced Tumbler.—1 and Medal, J. Nield (Pouter). 2, G. F. Whitehouse (Carrier). 3, J. Watts (Barh). hc, A. Riddell (Pouter).

ANY OTHER VARIETY.—1, C. F. Herrieff. 2 and 3, J. W. Edge (Fantail and

MIDDLESBOROUGH BIRD SHOW.

MIDDLEBOROUGH BIRD SHOW.

OCTOBER 23RD AND 24TH.

WE will furnish notes next week. The following is the list of awards.

BELGIANS.—*Clear or Marked Yellow*.—1 and 3, R. Hawman, Middlesbrough. 2, Fawcett & Anderson, Baildon. *vib.* R. Hawman; T. Jobbing, Middlesbrough. C. Z. Howe, Middlesbrough; J. Moffatt, Ilwaco. *Clear or Marked Buff*.—1, J. Moffatt. 2, T. Jobbing. 3, Fawcett & Anderson.

NEWCASTLE.—*Clear Yellow*.—1, G. Cox, Northampton. 2 and 3, J. Adams.

Norwich.—*Clear yellow*.—1, G. Cox, Northampton. 2 and 3, J. Adams, Coventry. *hc*, R. Simpson, Whitby. *Clear Buff*.—1 and 2, J. Adams. 3, J. Bexson, Derby. *hc*, R. Simpson.

NORWICH.—*Ereen-marked Yellow* — 1, Brown & Gayton, Northampton. 2, Moore & Wynne, Northampton. 3 and *vhc*, J. Adams. *Ereen-marked Buff*.—1, J. Adams. 2, G. Cox. 3, Johnson & Armstrong, Northampton. *vhc*, J.

2. J. Adams. 2. G. Cox. 3. Johnson & Armstrong, Northampton. *One*, 3. Stevens, Middlesbrough. *hc*, Moore & Wynne.
NonWich. - *Ticked or Unevenly marked Yellow*. - 1 and 2. J. Adams. 3. J. Bexson. c. J. Greenfield, Stockton. *Ticked or Unevenly marked Buff*. - 1 and 2. J. Adams. 3. R. Hawman.
NonWich. - Crested Yellow. - 1 W. J. Hampton, Darlington. 2. Cleminson

NORWICH.—*Crested Yellow*.—1, W. J. Hampden, Darlington. 2, Clemenson and Ellerton, Darlington. 3, G. Cox. *hc*, R. Waterson, Darlington. *Crested Buff*.—1, Brown & Gaston. 2, G. Doman, Nottingham. 3, G. Cox. *vhc*, Johnson & Armstrong. *hc*, R. Hawmin; W. Carrick, Middleburgh.

COPPEY CREST.—1, J. Brooks, Bradford. 2, J. Stevens. 3, W. Hutton, Baildon. *vhc*, E. Mott & Anderson. *hvf*, Shackleton, Rochdale. *hc*, W. Hutton; J. Stevens.

vic. Fawcett & Anderson, *hc.* J. Shackleton, Rochdale, c. W. Hutton, c. Stevens.
LIZARDS—*Golden-spangled*—1, Cleminson & Ellerton. 2 and 3. R. Ritchie,
 Darlington. *vic.* R. Ritchie; Cleminson & Ellerton. *hc.* J. Stevens, c. J.
 Shackleton. *Silver-spangled*—1, Cleminson & Ellerton. 2, J. Stevens, c. R.
 Ritchie. *hc.* R. Ritchie; J. Stevens, c. J. Shackleton.
LIZARDS—*Gold and Silver-mottled*, with *braka*. *can*—1, 2 and 3. R. Ritchie.

ph., J. Stevens. *hc.*, Clemonson & Ellerton.
CINNAMON—*Jonque*—1, 2, and 3, J. Adams. *hc.*, Z. Howe; J. Taylor, Middles-
 brough. *c.*, M. Burton, Middlesbrough. *Buff*—1 and 2, J. Adams. *S. G.*, Cox.
ph., J. Adams; Moore & Wyane. *hc.*, R. Hawman; J. Taylor; J. Bexson.
hc., J. Bexson.
Yellow—1, 2, and 3, J. Adams. *Buff*—1, Bruyn & Gaston. 2, J. Brooks.

CINNAMON.—*Varietated Yellow or Blue*.—1, Brown & Gayton. 2, J. Brooks. 3, W. & C. Burniston, Middleborough. *rhc*. F. Fritschler, Hurtlepool; J. Spence (2); G. Cox. *hc*, Fryer & Holt, South Stockton. *c*, J. Adams. YORKSHIRE.—*Clear Yellow*.—1, Leno & Renwick, Gateshead. 2, W. Howard, Harrogate. Extra 2, J. Stevens. 3, J. Armstrong, Hurtlepool. *rhc*, C. Holdsworth. *c*, Lebling. F. Williams, Southborough. *hc*, W. Lister.

worth, Harrogate; G. Joblin; R. Williams, Garsbrough. *nc.* W. Lister, Malton; J. Greenfield. *c.* W. Hutton. *Clear Engl.*—I. W. Lickley, Ripon.

2 and 3, W. Hutton. Extra 2, G. Gott, Leeds. *vhc*, W. Howard; J. Whittaker, Bradford; W. Lister; W. Hutton.
YORKSHIRE.—Evenly marked Yellow.—1, W. Hutton. 2, J. Stevens. 3, W. Cotton, Middlesbrough. *vhc*, F. Tritschler; J. Whittaker; W. Hutton. *Evenly marked Buff*.—1, R. Hawman. 2 and 3, W. Hutton.
YORKSHIRE.—Unevenly marked Yellow.—1, J. Garbutt, Stokesley. 2, W. Carrick. 3, C. Holdsworth. *Unevenly marked Buff*.—1 and 2, G. Gott. 3, G. Cooper, Darlington.
CLEAR GREEN.—1, W. Cotton. 2, J. Stevens. 3, J. Rowland, Marske-by-the-Sea.

MULES.

GOLDFINCH AND CANARY.—*Evenly marked.*—1, J. Stevens. 2, J. Cooper. Extra 2, Moore & Wynd. 3, R. Hawman. *vhc*, W. Bates, Nottingham; J. Whittaker; J. Stevens. *hc*, T. Alley, Durham. *Dark*.—1, G. Cox. 2, W. Hutton. 3, T. Tennison, Middlesbrough. *vhc*, G. Dolman; J. Bexson; W. and C. Burniston. G. W. & T. Burton.
LINNET AND CANARY.—1, J. Stevens. 2 and 3, J. Spence, South Shields. *hc*, W. Hutton. *Dark*.—1, J. Stevens. 2, G. Ashman, Stockton. 3, W. Carrick. *ANY OTHER CLASS.*—1, T. Tennison. 2, W. Hutton. 3, R. Hawman (Greenfinch and Canary). *vhc*, A. Waterworth, Leeds (bullfinch and Goldfinch).

BRITISH BIRDS.

GOLDFINCH.—1, T. Allenby. 2, R. D. White, Malton. 3, W. Carrick. *hc*, P. Henrice, Middlesbrough; W. & C. Burniston.
LINNET.—Brown.—1, W. Carrick. 2, J. Carrick. 3, W. & C. Burniston. *vhc*, W. Carrick; J. Carrick.
BULLFINCH.—1, J. Rowland. 2, W. Lister. 3, J. C. Bamher, Preston.
ANY OTHER VARIETY.—1, Fryer & Holt. 2, J. Bailey, Ormesby. 3, R. Pearson, Whitby. *vhc*, F. W. Castelow, Sunderland; J. Bailey. *hc*, W. Lister; R. Pearson; H. West, Darlington; W. & C. Burniston.
SELLING CLASS.—1, W. Henderson, Whitby. 2, G. Cox. 3, M. Barton.
JUDGE.—Mr. J. N. Harrison.

SOUTH STOCKTON CANARY SHOW.

The members of the South Stockton Ornithological Society held their first Exhibition of Canaries, Mules, and British birds in the Temperance Hall, South Stockton, on the 16th and 17th inst. On the whole there was a very good show of birds. The principal features in the Show were the high-coloured Norwich of Mr. Adams, of Coventry, and the Yorkshire-bred birds which were exhibited in somewhat unusually large numbers, the four classes devoted to them containing no less than eighty-nine specimens. The Belgians, as is mostly the case, were very few in number. There were several excellent specimens of the Cinnamon and Lizard Canaries exhibited. The following are the awards:—

BELGIANS.—1, T. Joblin, Middlesbrough. 2, Fawcett & Anderson, Baildon. 3, R. Hawman.

NORWICH.—Clear Yellow.—1 and *vhc*, J. Adams, Coventry. 2, Johnson and Armstrong, Northallerton. 3, Petty & Cuss, York. *Clear buff*.—1, R. Simpson, Whitby. 2 and 3, J. Adams. *vhc*, Johnson & Armstrong; J. Spence. *hc*, R. Layfield; Clemmison & Ellerton, Darlington.

NORWICH.—Evenly marked Yellow or Buff.—1, Johnson & Armstrong. 2, J. Adams. 3, R. Simpson. *hc*, J. Prior. *Unevenly marked Yellow or Buff*.—1 and 2, J. Adams. 3, J. Greenfield. *vhc*, J. Bell; R. Hawman; Clemmison & Ellerton; Johnson & Armstrong. *hc*, R. Jackson; T. Clemmison.

NORWICH.—Crested.—1, R. Hawman. 2, Johnson & Armstrong. 3, R. Triffitt, York. *vhc*, R. Triffitt; Clemmison & Ellerton. *hc*, A. Armstrong, Newcastle; Harrison & Huntress.

CINNAMON.—Jongue.—1 and 2, J. Adams. 3, M. Burton, Middlesbrough. *vhc*, J. Taylor. *hc*, J. J. Harris. *Buff*.—1 and 2, J. Adams. 3, J. Taylor. *vhc*, R. Simpson; W. Carrick, Middlesbrough; Johnson & Armstrong.

LIZARDS.—Golden.—1, 2, and *vhc*, R. Ritchie, Darlington. 3, Clemmison and Ellerton. *Silver*.—1 and 2, R. Ritchie. 3, Clemmison & Ellerton. *vhc*, J. Stevens; R. Ritchie.

YORKSHIRE.—Clear Yellow.—1, Johnson & Armstrong. 2, H. Walton, Stockton-on-Tees. 3, W. Hutton, Middlesbrough. *vhc*, J. Stevens (2). *hc*, R. Stenhouse; J. Rowland. *Clear Buff*.—1, J. Thackrey, Bradford. 2, L. Belk, Dewsbury. 3, R. Pearson, Whitby. *vhc*, C. Holt; J. Garbutt; Johnson and Armstrong; J. G. Bell; Fawcett & Anderson. *hc*, N. Oughtred; J. Thackrey.

YORKSHIRE.—Evenly marked Yellow or Buff.—1, J. Stevens. 2, J. Wilkinson. 3, L. Belk. *vhc*, J. Thackrey; T. Tennison; Johnson & Armstrong; W. Thornton. *hc*, J. Thackrey (2); J. Garbutt; W. Cotton. *Unevenly marked Yellow or Buff*.—1, J. Rowland. 2, J. G. Bell. 3, W. Carrick. *vhc*, J. Thackrey; C. Holdsworth; G. Turner; J. Garbutt; J. Wilkinson; R. T. Hudson.

CLEAR GREEN.—1, J. Stevens. 2, R. Jelly. 3, W. B. Aubrey.
ANY OTHER VARIETY.—1, L. Belk. 2, Fawcett & Anderson. 3, J. Fryer. *vhc*, J. Garbutt; W. & C. Burniston; Fawcett & Anderson; W. Ware. *hc*, J. Sedgwick; J. Brock.

CAGE OF SIX.—1, Clemmison & Ellerton. 2, T. Clemmison. 3, Johnson and Armstrong. *hc*, J. Dick; W. J. Hampton; J. Greenfield.

GOLDFINCH MULES.—1, J. Stevens. 2, T. Tennison. 3, J. Spence.
LINNET MULES.—1, J. Spence. 2, J. Stevens. 3, C. Holt. *vhc*, G. Ashman; W. Raw; J. Spence.

GOLDFINCH.—1, W. & C. Burniston. 2, G. Johnson. 3, P. Henrice.

LINNET.—Brown.—1, W. Carrick. 2, T. Tennison. 3, T. Dickenson. *vhc*, W. Carrick; J. Harston; J. Greenfield; J. T. Harrison; W. Buckle. *hc*, W. and C. Burniston; R. Pearson; W. Batchelor.

BRITISH BIRDS.—1, J. Gales. 2, J. T. Harrison. 3, R. Pearson.
SELLING CLASS.—1, J. Stevens. 2, J. Fryer. 3, J. Rowland.

JUDGE.—Mr. W. A. Blakston.

A SHORT DIALOGUE ON A CANARY SHOW.

"LET us go and see the pretty birds," said a little girl to her mamma, as they were recently passing a place where a bird show was being held.

"No! my dear; they say Canaries now are so 'hot,' that I am fearful of venturing with you too near them. It was only the other day I actually read of one being a 'scorchers.'"

"But, mamma, perhaps some of them are only 'warm.'"

"Well then, we will go and judge for ourselves."

They therefore entered the show, and whilst examining many splendid specimens, overheard a visitor remarking to his friend "That's a 'hot' un," at the same time pointing to a very beautiful-looking Canary.

The lady's attention was rivetted to the remark, and curiosity brought forth the explanation that it meant strength of colour.

She was amazed when informed that the deep orange tint could be produced through a free use of cayenne pepper, and was further informed that those who knew best how to administer the pepper would succeed in obtaining the best-coloured birds, if they were of "good breed."

The little girl, who had been attentively listening to the explanation, said, "But mamma, if they are like the Claimant their memories may fail, and they may forget how to give the pepper, and then what use is good breed?"

"Well my dear, they will then meet with disappointment, which I trust you will learn to bear up against. The little birds you see around us were sent for our pleasure, and to fill our hearts with gladness."

BRIGHTON ALL-ENGLAND BIRD SHOW.

In connection with the Sussex third grand annual Exhibition of poultry, Pigeons, and the first of dogs and cats, a Bird Show was held. There were 153 cage birds exhibited, most of which were of the choicest kinds. The competition with many of the high-coloured birds was severe; but Mr. Adams exhibited some "great guns" in the way of colour. The silver cup offered to the winner of the greatest aggregate number of points was won by Mr. Lulham, of Brighton, he making fourteen points. Show was held at the Royal Pavilion. We published the awards last week.

HIVES.

The question of hives is a very important one for apiculturists, and it is desirable to view it from several stand-points. Some five years ago I ventured to express my opinion on the sizes and materials of several kinds of hives in these pages, and for doing so I have been roundly abused. I again approach the consideration of the subject with some reluctance, and hope to be able to discuss the question with fairness, and with a touch of harshness of spirit or language. In all honest investigation no one has anything to fear or to lose. In all honest discussion, the vanquished more than the victor is enriched. Every question has two sides.

The material of which a hive should be constructed is forced on the attention of apiarians by some who would have us believe that hives made of wood are better than the "wasteful, murderous straw skeps." Such advocates assume that wooden hives tend to the preservation of the lives of bees, and straw ones to their destruction; but the destruction of bee life does not depend on this or that kind of hive, or whether hives are made of wood, straw, or other materials.

Wood hives are more durable than those made of straw, and if they possess another point of superiority I have failed to discover it. In his practice with bar-frame hives the late Mr. Woodbury found that straw is much better than wood, and therefore during the last years of his life his bar-framers were made of straw. Mr. James Lee of Bagshot, who took the first prizes at Manchester and the Crystal Palace Bee Shows for hives and bee furniture, is a practical bee-keeper as well as an extensive hive-maker. At the Manchester Exhibition he told me that wooden hives are very objectionable, owing to their condensing the moisture of the bees on their insides.

Mr. Quinby, who is, to say the least, one of the largest bee-keepers in the world, and an enlightened bee-keeper in America, being President of the Apian Society there, makes the following remarks in his book on "The Mysteries of Bee-Keeping." At page 300 he says, "We have all heard of the great success in wintering [bees] in the old-fashioned straw hives fifty or a hundred years ago. They were discarded, it is said, on account of harbouring the moth worm, and in consequence, Mr. Langstroth says, 'Straw hives are warm in winter and cool in summer,' and again, 'hives made of wood are fast superseding all others.' Notwithstanding this," continues Mr. Quinby, "I shall greatly err in my judgment if straw as a material for hives does not in a great measure regain its former position in public favour. We have now straw hives of convenient shape, some of them covered by a patent, but that is chiefly on the manner of holding the straw. The proper degrees of heat and cold when most desirable are great advantages, and these can be obtained on principles long ago recognised. Hives made with double boards enclosing a dead air space do very well in regard to warmth, but they do not dispose of the moisture with sufficient rapidity. The moisture must be got rid of, and in no way can it be done so well as by straining it through straw. Besides being advantageous for wintering, straw hives are superior in keeping the temperature warmer and more uniform throughout the spring, thus promoting early breeding and swarming. After the beginning of summer they do not seem to possess any special advantage over wood hives further than that their combs are less liable to melt down. But the objection first raised by most persons—viz., harbouring the moth worm, has not arisen in my experience. Out of a large number containing bees through the summer not one has been injured in this way."

Mr. Yates of Manchester began bee-keeping with wood hives, and to prevent the moisture from condensing on their inner surfaces he covered his hives with a very thick boiler felt, but it did not answer. At certain seasons of the year the inner surfaces of wood hives are covered with moisture, which rots the combs. The condensed moisture may always be seen by turning up wood hives at those seasons, and often it may be seen running down the sides of the hives and over the flight-board. This is the first year that my apiary has been without a wooden hive in it for twelve years. Every year such hives gave us abundant evidence of their unsuitability for bees and comb-building. The condensed moisture rots the combs in its immediate neighbourhood, and rotten combs can never hold honey or brood, or be a foundation on which to build fresh combs. The rotten parts are taken down every spring, and new combs put in their places. In turning up a wooden hive at the swarming season we often find the new pieces give the hive the appearance of one recently filled by a swarm. During the summer months hives are generally full of bees, and warm enough to dispel the moisture by the doors. In autumn the wood again becomes covered with moisture; even a riddle rim, which may be used as an eke to a straw hive, becomes covered with wet when not a particle can be seen on the straw.

Straw as the best material for hives has never lost its position in Scotland, and I believe that the great bulk of the successful bee-keepers there would not use wooden hives even if they could get them for nothing. I believe that the teaching of experience will lead most bee-keepers seeking great results to the adoption of large straw hives. Many of our friends have hives of wood and glass, hives of various shapes and materials. They are amateurs seeking pleasure and recreation from bee-keeping; but though they sometimes get a harvest of honey, and are satisfied with it, they cannot be reckoned amongst bee-farmers seeking large returns.

Like Mr. Quinby's, my hives have never suffered from the moth worm; indeed, I hardly know what it is. The work of plastering the inside of straw hives with propolis has been exaggerated. We have now a hive full of honeycomb, weighing more than 40 lbs., which has been in use for eight or ten years, and I can scarcely see any propolis in it. I do not think that 3 ozs. of propolis could be found in fifty of my hives. They are so warm and well made that a lining of propolis is quite unnecessary. Thin, badly made straw hives do sometimes get a coat of propolis, and this, as Mr. Quinby puts it, "will render it less efficient in ridding itself of moisture. I say less efficient, because it (straw) is better than wood at any rate." I have known a straw hive filled with combs in seven days by a single swarm, weighing altogether 45 lbs. Not much time lost in plastering here.—A. PETTIGREW.

I am a thorough believer in the old straw skep hive, and am sorry it seems to have been so little appreciated at the Crystal Palace Show. If you think a short account of my first swarm of this year will be interesting to the readers of your valuable Journal, or will tend to make apiarians think more of my favourite hive, I shall feel much obliged if you will insert this letter in your next publication.

The swarm I speak of was drummed out of a 16-inch hive on the 4th of June, into an 18-inch straw skep of the Pettigrew pattern. It was a strong swarm, and the weather was fine for some time after it was driven, so that I never had occasion to give it an ounce of sugar, or to feed it in any way. On the 25th of July I found the hive was quite full of comb. I then put an eke on it 4 inches deep, and took it to the Glossop moors. Since that date the weather in this part of the country, to the middle of September, was rather unsettled, and I should think we had only about ten days of really good bee weather; but in spite of this, when I brought my hive home on September 19th, I was delighted to find it weighed, including board, 100 lbs.

If this result does not speak volumes for the old despised skep hive, no poor words of mine will be of any avail.—EDWARD THORP, *Sale, Cheshire.*

LIGURIANS.

SOMETHING like ten years ago the late Mr. Woodbury set himself energetically to work to assist apiarians to ligurianise their stocks by the substitution of Italian queen bees for the more legitimate sovereigns, but felt compelled to discontinue the scheme on account of the frequent failures, the interlopers being so often slaughtered. I do not think the method of introduction pursued has altered much, neither can I say the amiability of the worker bees has to any extent increased, but certainly to make the regal exchange in question is not now considered a formidable operation, and the risk is but small; indeed, with frame hives ten or twelve minutes should afford ample time for the work, and the danger to the new sovereign is almost nil. With skeps or closed boxes more time is occupied, it being imperative that the black queen should be first captured; and to effect this it is generally necessary to drive out the bees until

the queen is discovered and safely removed. Sometimes she will elude the most educated and vigilant eye in spite of patience and assiduity, and it is never safe to introduce the new sovereign without being quite certain the old one is not in the hive. The mere fact of not finding her is not sufficient, and in the event of a battle royal it must not be forgotten the foreigner is tired, cowed, and enfeebled by her long journey and confinement, whilst her antagonist is in her accustomed vigour. Supposing the old queen is surely removed, it would never do to introduce the new one to the tender mercies of the workers without proper precautions being observed, for bees are not noted for hospitality to strangers, so she must be enclosed in a wire cage placed in the hive, and kept so imprisoned for at least twenty-four hours, when the excitement of the bees at the loss of their old queen will have passed away and the new one will generally be gladly accepted. It is advisable to sprinkle the bees and queen liberally with scented syrup both on the introduction and release. When the above time has elapsed open the cage gently and let her majesty walk out. Watch carefully the workers. If they take no notice of her or merely walk over, licking and feeding her, all is well and she may be safely left; but if she is seized by the legs and wings, and the bees assemble tumultuously about her, beware! In a few minutes the bees gather into a ball with the queen in the midst, when regicide is meant. Take up the knot of bees and drop them into a cup of water, which will effectually separate the cluster and hurt none; or pull off the bees until the queen is released, and immediately cage her again for another day's imprisonment, when the same process must be repeated with probably a better result. If a cluster is again formed try the effect of worrying them about with some tobacco smoke for a few minutes, when most likely they will give up in disgust.

Fertile Italian queens are now imported in considerable numbers at irregular intervals, and are generally bespoke on their arrival, for in the little boxes they arrive in they will not thrive long, and the casualties of the journey are sometimes serious. Their cost in England varies according to season, from about 7s. 6d. in October to 15s. in May. This is a considerable reduction from their value when first introduced, about fifteen years ago, which was something like two guineas. At the price now obtainable they will amply repay their speculative purchaser, for there is no question the Ligurian variety is a far better worker and breeder than our old friends. They may be seen sallying forth to work long before the true Britons, and still at labour after their neighbours have sought their well-earned rest. The queens are more prolific, probably because of the above; for whilst food comes into the hive, breeding will go on, and if supplies are stopped so is egg-laying. The introduction of a Ligurian stock is a general source of benefit to the other bees of the neighbourhood, for the natural law of "fresh blood" giving vigour holds good with bees as with larger animals, and very quickly it will be found the progeny of many young queens will show signs of love-making by the strangers. The one and only great source of disappointment with Ligurians that I am aware of, is the impossibility of being certain that the queens bred by them here will be the mothers of pure Ligurians, from the (as yet) impossibility of controlling their choice of sweethearts. This will decrease as the Italians get more widely spread, but at present the gentlemen in black have far the greatest majority; but even a mongrel stock is an improvement on the original black bees pure and simple. The introduction of a Ligurian queen into a stock of common bees, gives us indisputable evidence as to the length of a worker's life, which may be said to be regulated not by time but by the amount of labour executed in the midst of summer, when the days are long and the weather fine. Six weeks are sufficient to show that scarcely a black bee remains in the hive, all being dead and replaced by Italians. "A short life and a merry one," should be their motto. But let the introduction of the new queen take place in October, and we must take months in lieu of weeks to arrive at the same result; but even this is very curious, and the uneducated bee-keeper would scarcely credit us did we tell him that all the bees he has (except the queens), will have ceased to live before the flowers of May enliven the fields with their beauty and perfume.

The bees arrive from Italy in little deal boxes about 5 inches square, a queen accompanied by about a hundred workers; and on lifting the cover a remarkable proof is afforded of how much our irritable little friends may be subdued. Open the box, there they are, a fluttering, buzzing little swarm, each bee armed with a sting and a pair of wings, but showing not the slightest inclination to use either, as harmless as so many flies. Hold the box in hand, they buzz and seem to boil over the edges, running about the hands; and having apparently ascertained all about it, back they go to attend their liege sovereign without any attempt to investigate further or revenge the indignities they have lately suffered. This state of subjection is the whole secret of driving: it may be summed-up in one word, "terror." Only thoroughly alarm the bees and they become tractable and harmless; but there always remains the danger of accidentally

hurting one, and then, on the principle that "a worm will turn when trodden on," a touch of a very little instrument may make somebody cry, Oh!—JOHN HUNTER, *Eaton Rise, Ealing.*

HONEY HARVEST IN SCOTLAND.

THE honey harvest in this part of Scotland (East Lothian) this year cannot be called a prosperous one. The stocks were weak in the spring, and though the season in the early part was dry, it was often so cold as to prevent the bees from carrying after the spring flowers were over. We were fortunate in having nearly one hundred acres of turnip seed within a mile of us, which helped us greatly, though not so much as it would have done if the weather had been good. We had 2¹/₂ of frost on the 12th of June, injuring the potatoes much. Still there were some early swarms—the first a neighbour's on May 17th, and my first was on the 29th.

The season for the white clover was unpropitious; though there was a quantity the bees did not work on it as they used to do. It was only on rare occasions that it gave off its usual fine odour. However, there were very fine white clover supers or tops obtained, though I did not increase my stock of hives more than from sixteen to twenty, but gave room for breeding, and by uniting I increased a ten-bar Woodbury to a twenty-three-bar, and a ten-bar to fourteen. During July they got a good deal of honeydew from the trees, which spoilt a number of tops, but it enabled the bees to continue breeding, and they were sent to the heather ten miles from here on the 29th of July, a week earlier than usual, in very good condition for gathering honey, full of bees and brood. The heather being fine we fully expected a lot of honey, but the weather got unsettled, and a quantity of rain fell the first week at the time the heather was at its best, so that our expectations were not realised.

The average weight which my twenty hives obtained was 16 lbs. each, some gaining 21 and 25, one 30¹/₂, some only 6 lbs. Last year the average was above 10 lbs. There are, consequently, a great number of half-finished supers in this district, and as we generally have them in supers, this is not a profitable season for bee-keepers.

I use the old straw Stewarton and Woodbury ten-bar frame hives. I generally take the two outer bars from each of the latter just before they are sent to the heather, and whatever the season is these are mostly filled with honey, even when there are no supers. These bars weigh from 4¹/₂ to 5 lbs. each, so that by using them I have always good pure honeycomb for the use of the family: hence the superiority of the bar hive to any other.

I have reduced my stock to fifteen, breaking up the rest, and putting the bees into weak hives, destroying unfertile queens, and covering up for the winter. The old combs are selected; those which never had brood in them and entirely free from farina are cut up, and run through a cloth, which is quite pure. The other combs are cut up and run, and used for feeding the bees with. The honey is not fit for eating, even though the combs are never squeezed in any way. No one would eat honey again were they to see it squeezed or run, and I am astonished to see would-be bee-masters recommending such a disgusting practice when there is no need for it. A neighbour had eight hives at the hills, but he did not weigh them, consequently could not say what was the average; but it must have been about the same as my own, as they were about equal in strength. He will reduce his stock to about the half (forty) by driving and uniting two weak stocks. No bees are smoked here, and he never has any fighting. He will unite as many as eight into one, and does not adopt the bad practice recommended by some of smothering the bees with honey or sugar syrup seasoned with mint. Mine were all united without any attempt to fight.

Full finished supers holding from 10 to 15 lbs. are selling at 2s. 9d. per pound, and as low as 1s. 4d.; run honey about 1s. per pound.—A. SHEARER, *Yester.*

BEE CHRONOLOGY.

MR. PETTIGREW says the bee season of 1871 has brought to light something new in the habits of bees—viz., that they will for a time permit a divided sovereignty, as is instanced in the case of Mr. Boulton's hive, of Ulverston. I can assure him that the facts of this case are indisputable. Nothing was exaggerated; but the plain facts as stated by me in your columns can be verified, if need be, by the testimony of at least a dozen of unimpeachable eye-witnesses. The facilities of examination given by the Woodbury hive leave not the slightest loop-hole for doubt, uncertainty, or incredulity. The bare facts stand out as they were stated; the reasons for such I leave for elucidation to those better calculated, from experience of the habits of bees, to adduce.—BETA.

OUR LETTER BOX.

GOLD-LACED BANTAMS AT BRIGHTON SHOW.—My cup pen is either sent somewhere by mistake or stolen. If you would name the subject in your

Journal it may assist me to find them. The number of pen lost is 169.—M. LENO, *Markyate Street, Dunstable, Beds.*

FOWL'S INTESTINES ULCERATED (J. M.).—The fowl would gradually have wasted away and died. We know neither the cause nor cure of ulcerated intestinal organs.

LIGURIANS (*One who would Progress*).—Write to the dealers in hives and honey who advertise in our columns.

THE HONEY-EXTRACTOR.—The honey-extractor made by Mr. Walton and exhibited at the Crystal Palace will be fairly tried and tested here next Saturday afternoon, October 31st. If any of the readers of this Journal have a desire to see the slinger at work they will have an opportunity of doing so if they come here at three o'clock next Saturday.—A. PETTIGREW, *Priory Vineyard, Sale.*

PETTIGREW'S FIVE (*The Cornish Duckwing*).—In a week or two Mr. Pettigrew will give a woodcut and full description of his hives in our columns. They are made of wheaten and rye straw, firmly and neatly sewed with canes, beautiful in shape and appearance, and when filled weigh from 60 to 130 lbs., according to size. They are made in Ayrshire, and sold by Mr. Yates of Manchester.

COLLATERAL HIVES, &c. (J. R. Edgbaston).—Nnt's hives are as good as any collateral hives can be—perhaps we might say as bad. We have tried them and other variations of the same principle, and discarded them all. Undoubtedly the most profitable system, take it all in all, is the storifying mode of management. As to your hive infested with black bees, we cannot make out exactly from your letter the circumstances of your case. The snail had certainly nothing to do with it. It was the weakness of the hive which permitted the snail to enter. We cannot tell the cause of the appearance of these black bees.

WRITE RABBIT SKINS (J. J. M.).—As soon as the skins taken off scrape off all the soft internal part, and then sponge it with a strong solution of alum.

METEOROLOGICAL OBSERVATIONS,

CAMDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W.; Altitude 111 feet.

DATE.	9 A.M.		IN THE DAY.							
	Barom. at 9 A.M. in vacuo Levelling.	Hygrom- eter. Dry. Wet.	Direction of Wind.	Temp. of air at 1 foot.	Shade Tem- perature.		Radiation Temperature.		Rain.	
					Max.	Min.	In sun.	On grass.		
1874.					deg.	deg.	deg.	deg.		In.
Oct.										
We. 21	29.650	55.4	51.7	S.W.	51.6	57.4	44.0	68.2	43.9	0.030
Th. 22	29.733	47.0	41.1	W.	50.8	55.3	40.0	100.9	37.5	
Fri. 23	30.099	49.0	41.1	N.W.	49.1	52.3	35.1	93.2	33.6	
Sat. 24	30.157	47.7	43.8	S.	48.8	56.2	41.0	86.3	37.4	
Sun. 25	29.948	55.7	54.0	S.	45.9	59.3	46.3	62.6	43.4	0.068
Mo. 26	30.170	55.2	54.0	S.E.	51.9	61.2	51.3	77.4	53.2	0.192
Tu. 27	30.053	57.8	55.2	S.W.	49.0	68.5	52.8	88.0	50.2	
Means	29.966	51.7	49.1		50.7	57.9	44.8	82.4	42.7	0.225

REMARKS.

21st.—Very high wind in night, and till the afternoon; rain in the morning; fine evening, and very little wind.

22nd.—Rather cold, but a splendid day throughout.

23rd.—A very bright fine day, but colder than we have had this season.

24th.—Foggy early; fine in the middle of the day, but dark early in the evening; splendid moonlight night.

25th.—Dull and raining at 9 A.M., continuing dull and cheerless all day; very little rain, but not any sun.

26th.—Rain in the morning, and at intervals all day, and a wet night; but the quantity of rain that fell was small considering its frequency.

27th.—Dull damp day; occasional very bright gleams of sun in the middle of the day, but only for very short periods; and a damp night.

Very windy on the 21st, and rather cold on the two following days, though bright and pleasant. Since then much warmer, but very dull. The mean temperature about 3° below that of the previous week.—G. J. SYMONS.

COVENT GARDEN MARKET.—OCTOBER 23.

THERE is no improvement here, and no change worth notice.

FRUIT.

	s. d.	s. d.		s. d.	s. d.
Apples.....	1	0 to 1	Chestnuts.....	1	0 to 0
Filberts.....	1	0	Pears, kitchen.....	1	0
French.....	1	0	Pears, dessert.....	1	0
Cobs.....	1	0	Pine Apples.....	1	0
Grapes, bottom.....	1	0	Pine Apples.....	1	0
Lemons.....	1	0	Pine Apples.....	1	0
Melons.....	1	0	Walnuts.....	1	0
Oranges.....	1	0	Walnuts.....	1	0

VEGETABLES.

	s. d.	s. d.		s. d.	s. d.
Artichokes.....	1	0	Leeks.....	1	0
Asparagus.....	1	0	Lettuce.....	1	0
Beans.....	1	0	Mushrooms.....	1	0
Beans, Kidney.....	1	0	Mustard & Cress.....	1	0
Broad.....	1	0	Onions.....	1	0
Beet, Red.....	1	0	Pickling.....	1	0
Broccoli.....	1	0	Parley per doz. bunches	1	0
Brussels Sprouts.....	1	0	Parsnips.....	1	0
Cabbage.....	1	0	Peas.....	1	0
Carrots.....	1	0	Potatoes.....	1	0
Cauliflower.....	1	0	Rhubarb.....	1	0
Celery.....	1	0	Salsafy.....	1	0
Coleworts.....	1	0	Sea-kale.....	1	0
Cucumbers.....	1	0	Scorzoneria.....	1	0
Endive.....	1	0	Spinach.....	1	0
Fennel.....	1	0	Turnips.....	1	0
Garlic.....	1	0	Vegetable Marrows.....	1	0
Herbs.....	1	0			
Horse-radish.....	1	0			

WEEKLY CALENDAR.

Day of Month.	Day of Week.	NOVEMBER 5—11, 1874.	Average Temperature near London.			Rain in 43 years.	Sun Rises.	Sun Sets.	Moon Rises.	Moon Sets.	Moon's Age.	Clock after Sun.	Day of Year.
			Day.	Night.	Mean.		m. h.	m. h.	m. h.	m. h.			
5	TH	Camerarius born, 1534.	52.9	37.2	45.0	20	3 af 7	25 af 4	47 2	19 3	26	16 17	389
6	F		52.4	36.9	44.7	19	5 7	23 4	56 3	29 3	27	16 14	310
7	S		52.1	36.7	44.4	29	6 7	21 4	6 5	39 3	28	16 11	311
8	SUN	23 SUNDAY AFTER TRINITY.	52.0	34.3	43.1	19	8 7	20 4	17 6	51 3	29	16 7	312
9	M	PRINCE OF WALES BORN, 1841.	50.5	33.8	42.2	16	10 7	18 4	30 7	6 4	1	16 2	313
10	TU	Royal Horticultural Society, Fruit and Chrysanthemum Show.	50.4	34.0	42.2	24	12 7	16 4	41 8	27 4	1	15 56	314
11	W		50.2	34.2	42.2	15	13 7	15 4	57 9	55 4	2	15 49	315

From observations taken near London during forty-three years, the average day temperature of the week is 51.5°; and its night temperature 35.3°. The greatest heat was 63°, on the 5th, 1852, and 6th, 1834; and the lowest cold 17°, on the 9th, 1861. The greatest fall of rain was 1.03 inch.

NOTES ON NECTARINES.

FEW things are more vexatious than the discovery that fruit trees which have had our best care in planting and culture, do not yield fruit like that expected; the selection of sorts is consequently a matter of such importance and difficulty withal that only the initiated can hope to be really successful. Flavour, size, productiveness, and appearance are all desirable qualities, and each kind is valued just in proportion to its merits in these respects. Now I do not know all about Nectarines, but there are a few facts deduced from late experience which may assist others, and which, I think, cannot be written at a more seasonable time than the present.

It is now nearly four years ago that stations were prepared for a collection of fruit trees which have since been under my care, and among these the Nectarines have certainly well maintained their position. The whole of them have done well, and this year many have produced the first crop of fruit. Of these Lord Napier is undoubtedly most worthy of the first place; its size is something wonderful, well-grown fruit measuring fully 8 inches in circumference. I very well remember pausing before some Pitmaston Orange Nectarines which had won the first prize at the late fruit show at the Crystal Palace, and fancying what a sensation a plate of Lord Napier would have caused if placed by its side. In flavour and colour the melting flesh of Lord Napier is also excellent, and what adds so much to its value is its earliness, the huge fruit ripening early in August. The tree is vigorous and healthy. Altogether it is a first-rate sort, and no one will ever regret adding this grand Nectarine to their collection. There can be no doubt that it and others of Mr. Rivers's equally fine seedlings are destined to replace most of the older sorts by their superiority in size and flavour, and by extending the season for ripe fruit very considerably. The fruit of Rivers's Stanwick Elruge was not so large as Lord Napier, but it was very fine and excellent. The crop was abundant. I shall, perhaps, best show how highly I esteem it by extracting from my fruit book the note of it for this year—"Tree in full vigour. Splendid crop of fine fruit. Flavour excellent. This is quite one of the best." Rivers's White was good, the tree yielding about half a crop. There are others of the Sawbridgeworth strain that were planted later, and have not yet fruited. Pine Apple I know to be most delicious. Albert Victor, Victoria, Prince of Wales, and Large Elruge are the other sorts, which I believe must be grown, and which I hope to know more about next season. Of older kinds Pitmaston Orange had an abundant crop of small fruit, Violette Hative and Balgown had very little fruit, owing, probably, to a very robust growth. They are both in a promising condition for next season.

Considerable difference of opinion prevails as to the amount of vigour which it is desirable such young trees should possess, some persons regarding a shoot of 5 or 6 feet as just so much wasted vigour, and they would

root-prune and pinch-off the ends of any growth exceeding stated limits rather than see a Peach or Nectarine tree exhibit the slightest approach to grossness; so bigoted are some in this respect that I have known instances of trees being actually lifted and every root severed during the season of growth in order to reduce them to a certain standard, the result being a weakly growth and an abundant crop, equally void of vulgarity on the score of size; for in no instance could a single fruit be found which at all approached the recognised standard of excellence. Now, the end and aim of every cultural system is undoubtedly to obtain an annual supply of first-class fruit. When this is well done the trees at this time of the year will invariably be found to have made a robust new growth, with the bark firm and bright, and bristling with plump triple buds. So long as one can point to such a result one need not mind a little criticism. My own practice is somewhat of the rough-and-ready type. The trees are taken care of, but I do not mind a few gross shoots, as will be understood when it is stated that most of the Nectarine trees, which were planted in January, 1872, have reached the coping boards at the top of a 10-foot wall. The branches of one tree of Balgown have a lateral spread of upwards of 20 feet; a Barrington Peach is equally fine, and from present appearances I have reason to anticipate a heavy crop on both trees next season. Had all growth that might be regarded as rampant been pruned as closely as is sometimes recommended these trees would not only not have been above half the size, but, what is far more important, next season's crop would assume a much less promising aspect. Take, for example, a shoot of extraordinary strength of last year upon the Barrington Peach. Last autumn it had not a triple bud upon it, yet it was not cut away, but only shortened to about 4 feet, and the result is that it has made a splendid lateral growth of stent fruiting wood, each shoot being 2 to 3 feet in length, with abundant triple buds. Very different would the result have been had it been cut off altogether, for then it would have been replaced by two or three shoots equally gross and equally fruitless. When the pruning knife is thus misapplied it can no longer be regarded as a scientific instrument, and is worthy only to be classed with a woodman's bill-hook.

All kinds are not equally robust; thus Pitmaston Orange Nectarine, Noblesse and Early York Peaches are not so much inclined to develop a strong growth as early maturity and fruitfulness, affording fruit in quantity long before the more vigorous sorts. I do not agree with those who would try to bring all kinds into a uniform condition of fruitfulness by a given time, but strive rather to adapt my culture to the peculiarities of each sort, believing that by so doing I shall eventually render them more healthy, and consequently more fruitful and durable, than if they were subjected to a system which is not commendable even for its precision. I said I do not object to a few gross shoots, and really I do not well see how one could fairly do so after making the stations as fertile and sound as possible; for what was one's object in so doing? Was it not to promote strength and

rapidity of growth in the first instance, so that when they began to yield full crops they might possess stamina even to superfluity, and continue year by year to bring a full crop to its fullest possible maturity in size, flavour, appearance, and quantity, as well as to make a free growth, not of mere abortive spray, but of those noble shoots long, stout, and strung, brown yet bright and ruddy in appearance, firm in texture, and thickly set with full, plump, triple buds, such as cause one's heart to rejoice in the reward which even they afford for past care and culture, and in the brighter promise of a teeming future crowning our efforts with repeated success?—EDWARD LUCKHURST.

CROCUSES AND GERANIUMS.

The following system of beautifying his flower garden in spring and summer adopted by a leading Yorkshire agriculturist is worthy narration. It is easy, simple, certain, and within the reach of all who wish their flower beds to be in the best order and bright during the greater part of the year. The owner of the garden is a Journal reader, and is willing that the system, which has served him so long and so well, should be noted for the benefit of all whom it may concern. It is the very essence of simplicity, and, with the least possible trouble, results in some of the finest *Crocus* beds and the finest *Geranium* beds ever seen.

The plan is as follows:—The *Crocuses* were planted 2 or 3 inches apart, and 3 or 4 inches deep. The surface of the ground was then covered to a depth of 3 inches with good spit manure, which acts as a protection during the winter, and at the same time enriches the soil by the washing of the winter's rains. Early in the spring, after the manure has become ameliorated by the rain, frost, and sun, the rake is used, which produces a fine surface mould, and during the summer becomes a very rich soil, giving all that is needed for the growth of summer bedding plants. The *Crocuses* are never removed from the beds, but when the grass is matured it is cut off just below the surface of the ground. By this time the *Geraniums* are ready for planting. The beds are not dug at all, but the plants are simply put in with the trowel, causing as little interference with the soil as possible. If a *Crocus* is dug up it is just put into the bottom of the hole again with the *Geraniums*. In the autumn, on the removal of the summer plants, the same rich surface-dressing is given the beds, which are never dug.

This system of top-dressing, raking down, and *Geranium* planting is continued year by year, the *Crocus* roots, of course, getting deeper from the surface, but only each spring to come up finer than before. The depth of covering is thought to be a preservative against mice, which never do them injury. This plan has now been adopted nine years. The size of the *Crocus* bloom is something wonderful, and the buds in spring are one thick dense glowing mass of colour, extorting the admiration of all who see them. The increase of bulbs by this let-alone system and top-dressing has been great, even, as the owner says, "more than twice quadrupled;" hence the massive bloom. The *Geraniums* are equally fine, and during this past season of drought were considered by far the best beds in the district, and always surpass in effect beds dug and planted in the ordinary way.

Annual surface-dressings of good spit farmyard manure and never digging are, speaking paradoxically, the root of the success of this extremely simple and effective plan of spring and summer garden decoration. It is admirably adapted to amateurs, involving, as it does, so little labour, skill, and attention. The first outlay in bulbs lasts a lifetime, as they increase and improve year by year. They are planted some in mixture, but mostly in masses of one variety, with a distinct kind for edging; but this, of course, is a matter of taste which each can determine for himself.

The varieties of *Crocus* used, which have in this case proved so great a success, are *Caroline Chisholm*, white; *David Rizzio*, purple; *Sir J. Franklin*, large purple; *Sir W. Scott*, lavender-striped; *Superb*, yellow; *Princess Alexandra*, purple; *Mary Queen of Scots*, white.

It may be added that anyone deciding on this easy and satisfactory mode—proved so by nine years' experience—of garden embellishment, should lose no time in getting in the *Crocuses*. They are often kept out of the ground too long—that is, the bulbs are suffered to grow too much before they are planted, when a portion are sure to decay, or if they do not perish entirely, make small incipient bulbs for another year. By this too common procrastination in planting, thou-

sands of *Crocuses* are wasted every year. There are two things *Crocuses* cannot endure—viz., a stagnant waterlogged site and poor soil. It is necessary, therefore, for this permanent planting to see at the outset that the beds are fairly drained and the top-dressing will do the rest. If the soil is of a free sandy nature the bulbs may be simply put in without any other mixture; but if strong and heavy, it will be very advisable to surround and cover them with something lighter. A barrowful of dried leaf mould and sand in equal parts will go a long way, and will do much in such soil to promote success. The main thing is not to plant bulbs that have grown an inch or two in paper bags, thus exhausting their vital force, and directly predisposing them to decay. If beds cannot be prepared at once pack the *Crocuses* close together on a hard bottom outdoors, and cover them with 2 inches of light soil. In a month, in addition to top-growth, they will bristle with roots, and be in fine condition for final planting.—J. WRIGHT.

WANTED A GEO-HYGROMETER.

HALF the failures with indoor fruit culture arise from improper or insufficient watering. Cannot some kind scientific friend devise a simple method of ascertaining at any time the comparative amount of moisture contained in the soil 18 inches or 2 feet below the surface? In the first place it is not easy to find out what is the average amount of water required. A study of the amount of rainfall will not give it, because compared with rain our modes of watering are very imperfect. There is much more waste attending it, because artificially prepared borders are generally so much more porous than the natural soil, which is only stirred a few inches below the surface. The drainage also is more perfect than it generally is in the open air. The soil is allowed to become drier in winter, the growth is more luxuriant, and consequently evaporation goes on faster. Fire heat is also drier and harsher than sun heat, and it takes more moisture to make it genial.

Even after having succeeded tolerably well one or two seasons, and having carefully noted the quantity of water used each time, and how often applied, there is no guarantee that the same quantity will be the right quantity another season, for there are exceptional seasons, and exceptional seasons require exceptional treatment. The past summer has been a very exceptional one, and its influence has been quite as marked on indoor vegetation as it has on that out of doors. Amateurs are very anxious to have rules laid down as to how often they should water their plants. Now, to show how difficult it is to give directions on this point, I may state that during the early part of the past summer it was found that fruit borders required water about once a fortnight, which in the previous year only required it once in five or six weeks. The plants had grown considerably, and had, perhaps, doubled their evaporating surface, but the roots had also extended, and the allowance of water given each time was increased in proportion. The difference, therefore, did not arise from the increase of evaporating surface, but from the external drought. We have the atmosphere of our houses under control to a certain extent, but not so much so as would appear at first sight. We must ventilate, and if when we ventilate the external air only contains two-thirds of its average amount of moisture, as was shown by the tables given in "our Journal" to be the case for a time, there must immediately be a great rush of the moist air from the interior of our houses. When this is known to be the case, and the supply of water and labour is unlimited, no great evil follows; but many, alas! during the past season have found themselves deficient of both water and labour.

It is surprising how little is the cost of pipes, taps, and hose, compared with that of the labour annually wasted in carrying water a distance by hand. The amount of wages paid to those who carry the water is not all that should be taken into account. The watering has generally to be done, and is seldom done efficiently when there is a great pressure of other work and time is doubly valuable. I have known a case where an efficient supply of water was laid on for less than it previously cost every year to carry what was not a tenth part of a sufficiency. Where a natural flow of water cannot be conducted to the desired spot, a hydraulic ram, a water-wheel, even a steam pump is cheaper in the long run compared with manual labour, its consequent wear and tear and insufficient watering.

To ascertain when the soil requires water, I dig down 18 inches or so with a trowel or stick, take a portion of the

soil in my hand and squeeze it together. If it binds, water is not required; if it refuses to bind it requires water, or, at least, very soon will do so. This method will not do for those whose borders are principally composed of bricks and mortar; mine are made with loam and a few broken bones. Of course, it is a very rude method, but it is the best I know of present. I want our scientific friends to help us to a better one. Another reason for requiring some instrument as a telltale is, that one must often trust to his subordinates' love of work as to whether the stipulated quantity of water is given. I personally have never found any difficulty in this way, but such a thing might occur.

It is generally recommended not to water Vines after the Grapes commence colouring, and as a rule this is sound advice. There are times, however, when this rule must be departed from. If a quantity of healthy foliage remains on the Vines after the fruit is ripe and the weather is bright, the border may get too dry and the Grapes will begin to shrivel. Immediately on the first appearance of shrivelling the border should be examined, and if found dry, a bright clear day should be chosen, when some of the driest surface soil should be taken off and laid in heaps, the necessary quantity of water applied, and the dry soil returned to its place. All this should be done while there is abundance of air on the house. No part that is watered should be left uncovered at night, and then if the top soil is dust-dry, no damp whatever will rise through it. If the lower eyes on the laterals have become brown, no harm will be done by shortening the laterals considerably, which will diminish the evaporating surface and lessen the probability of the border requiring water again till the fruit is gathered.—WM. TAYLOR.

LIFTING AND ROOT-PRUNING FRUIT TREES.

No. 5.

PEACH FAILURES.

It is really wonderful to note what an alteration has taken place in the views of horticulturists since we have had cheap glass. How well the thing can be made to work in the hand of the freetrader as compared with it in that of the monopolist! Glass has become the monopolist. Even Cabbages are long will not be thought delicate-eating unless grown under it. Glass monopolises our ideas entirely. The young aspirant of the blue apron considers subjects outdoors as beneath his dignity, worth knowing only by labourers. He is sure to pass with honours, if only his tuition be under glass; and the old finds what he had grown to such perfection outdoors is accomplished under glass with increased certainty and greater comfort to himself. Upon the introduction of orchard houses we were to have a crop without fail every year, to heat them was quite unnecessary; but now we find the upholders of the system advocating the very thing pointed out as resultant from experience—the heating of them if crops are to be had with certainty, not only in cold high positions, but in the most favoured. Glass, then, as a protective material for the cultivation of the Peach and Nectarine, is not superior to a south wall with the usual means of protection. Failures occur occasionally—as often with one as the other, and because these occur we are asked to believe in a theory that explains only truth away. It is said our climate has suffered a diminution of temperature; Peaches cannot be grown against walls nor in unheated houses without loss of crop in an unpropitious season, omitting to state the fact that they never were grown without occasional failure by such means. The climate, not man, is at fault.

Since the introduction of cheap glass a great stimulus has been given to the cultivation of fruits. The outdoor culture of the most tender kinds has been neglected, and the sole cause and reason of Peaches not being grown so well on walls now as formerly is conveyed in that one word "neglect." I know it is a word that few like to have applied to themselves, but what other word in our vocabulary is so suited to the occasion, or can enable a correct explanation to be given of why we cannot as successfully grow Peaches on walls in the latter half of the nineteenth century as the first half? Failures there always were since I can remember; failures we have now, but have we no successes? Look about and see if there are no places where Peaches are not grown on walls, and if there are any places where Peaches thrive in unheated houses and not on walls with protection, why by all means record the fact. A protected wall is, in my opinion, every whit as good as an unheated house, and not nearly so costly in after-attention.

Some years ago orchard houses were to supersede walls en-

tirely. Peaches were to be grown in unheated houses, but in the course of a few years the houses were found altogether useless for the purpose unless they had means of affording artificial heat; in fact, we find not unfrequently that Peaches are grown by themselves, separated from the Plums, &c., which everybody knows are hardier subjects; indeed, if Peaches could be grown in a house with Apricots, Plums, Pears, and Cherries, it is manifest the Peach could not be nearly so tender as it was considered, and we must have erred in treating it to the best aspect, and protecting its blossoms and young fruit in spring and early summer. If it can be grown in an unheated house along with Plums, Pears, and Cherries, it certainly ought to succeed in similar positions with these outdoors. The only thing we have gleaned from the orchard-house culture of the Peach is a confirmation of the fact known more than a century past—viz., that it is now, as then, a tender exotic, requiring for its cultivation in our climate the best of aspects, shelter natural or artificial, or both, with protection for its blossom, its young fruits, and tender growths. Anything short of this means failure—disappointment by loss of crop. If our climate be such as to insure the growth of the tree, the perfecting of its bloom buds, their expansion in spring, and if efficient protection be given the blossom, young fruit, and growth, the crop ripening-off late in summer, what more do we need to convince us the climate is not unfavourable save in spring, and that Peach-culture outdoors is not the difficult matter it is represented to be?

Now I have grown Peaches against walls successfully. I have had them fail both in an unheated house and against walls, just as the climatic conditions were favourable or the contrary. The last four seasons I have made an attempt at their culture on a south wall upwards of 500 feet above the sea. I was told it was of no use in this climate; even in houses fire heat was necessary in spring to bring them forward, and in autumn to ripen the fruit and wood. Well, I thought to try Peaches upon a wall 200 feet long, but considering discretion the better part of valour, planted four trees only, the rest were Pears and Plums, alternating the Peaches with Pears. They were not protected from the day of planting to this; and last season, as also this, two trees bore a few very fine fruits ripening in September. The kinds are Noblesse, Violette Hâtive, and Malta Peaches, and Violette Hâtive Nectarine; and the kinds which bore were Violette Hâtive and Noblesse Peaches, the others not having fruited. The growths were very rampant and did not ripen, so that in lifting last autumn the roots were found away from the stem, and one-half the young wood of the previous year died back nearly its whole length. I had an opportunity of comparing their doings with over twenty kinds of Peaches and Nectarines grown under glass with heat. Those under glass have, of course, given more scores of fruit than the others have single fruits. No one could expect a different result from the trees under glass; but the outdoor trees convinced me that Peaches may be cultivated successfully without glass, which, if the wall be not covered with glass as contemplated, I trust to demonstrate more decidedly by using a firm soil and protecting them, instead of trusting them to the chances of the weather. My object was so far accomplished. Peaches unaided will, against a south wall in 54° 30' north latitude and 0° 50' west longitude, at 500 feet above the sea level, for two years consecutively ripen perfectly. The soil is not suitable for the Peach; it is a light and porous moory peat soil, heath and whin being the indigenous vegetation of the open country.

The Peach being not upon its own roots, how are we to reconcile ourselves to the dictum of a strong soil for the Peach and Nectarine, and a lighter one, even sandy and calcareous, for the Plum and Apricot? All are on the Plum stock. Surely the Plum roots are the same in any soil. Not at all. In a light soil they have greater freedom of penetration and extension. If it be poor and dry the growth of the head will be weak and productive of bloom, but not of fruit, for profusion of bloom and of fruit do not necessarily go together. If the soil be open and rich the growth will be strong, and the blossom and fruit, until the vigour of the tree is overcome by age, will be remarkable only by paucity and small size. Consolidate the soil, and the resistance it presents to the extension of the roots will cause them to branch and permeate through it more slowly and thoroughly, and the head will be stouter, shorter-jointed in growth, have denser foliage, and be more fruitful. This constitutes the chief difference between a strong soil for the Peach and a light one. The latter is as good as the former if it is rich and firm, so that the growths are short and stout,

and moisture is forthcoming when required. A light and poor soil means enfeebled growth and poor mealy fruit; a light and rich soil secures long thin, or if moist, long sappy growth, its attendant mildew and failure of crop; firm, light, rich soil gives fruitfulness, vigorous, but healthy, well-ripened growths of wood and fruit. A firm soil is therefore required for the Peach, but it need not of necessity be heavy, only if light soil be used it must be rich in humus-affording agents. A strong loam with an admixture of marl is unquestionably the best soil for Peaches. Then we have to consider the difference in the growth of the Peach, Apricot, and Plum. The Apricot and Plum produce their fruit for the most part upon spurs—short stubby shoots, but the Peach does so only sparsely and indifferently, the best fruits on bushes or pyramids and standards being borne on the stiff short-jointed shoots of 7 to 9 inches in length, that of the spurs being comparatively poor, whilst the spurs are short-lived. This difference in the growths causes the Plum and Apricot to succeed in a soil lighter and more open than the Peach requires to have it fruitful and healthy.—G. ABBEY.

NOVELTIES IN THE ROYAL GARDENS, KEW.

On the rockwork we have chiefly to remark a new *Lobelia*, which, unlike the most familiar members of this genus, delights with prettiness of leaf, while its flowers afford but a sorry display. We allude to *L. subnuda*, an acquisition recently obtained by Mr. W. Thompson, of Ipswich, in whose collection of novelties for next year we may expect to see it. The leaves arrange themselves in a neat tuft, and on the upper surface have a velvety appearance, dark in colour, but veined with green, which imparts to the plant its most attractive feature; underneath they are of a uniform purple. In outline they are ovate, with large serrations; the blade measures rather less than 1 inch from base to apex, and the petiole in length is rather more. The flowers are small and pale blue, borne rather widely apart on erect stems. It is a native of Mexico. *Pentstemon antirrhinoides* is very distinct, inclined to be of shrubby habit, with short yellow flowers, recalling the *Impatiens* repens. The flowers are unfortunately not very numerous. The leaves are small. *Parochetus communis* is one of the prettiest of trailing plants, with its fresh green trifoliate leaves, like some kind of Clover, and brilliant blue flowers, not quite so large as the Pea, but similar in shape.

In the herbaceous ground the Asters have been lately the chief point of interest. *A. pendulus* is the best now in flower; the capitula are white and rose; it grows about 40 feet high. *A. puniceus* is also good; the flowers are white, and the leaves of a much lighter shade than is usual. When planting Asters it is necessary to give plenty of room, as they otherwise quickly run into each other, or smother other things.

Fouquieria undulata, an uncommon species, is flowering in the Succulent house. It has never yet been figured. The leaves are dark green with brown spines, and spreading with less rigidity than is common to the genus. The scape is about 6 feet high, though from a stronger plant it would doubtless be taller. The flowers closely resemble those of other kinds; indeed it appears that there is very little variation in this respect in the genus, so that the leaves must be largely relied on for distinctive characters.

Cuscuta reflexa, one of the Dodders, flowering in the Cape house, deserves mention. The stems are very numerous, and about which are freely strewn the white bell-shaped flowers. It apparently grows on anything. It is now doing well on *Pelargonium*: on *Mesembryanthemum*, Ivy, and *Gnaphalium* it has also been cultivated. To increase, it is only necessary to place near it the plant on which it is intended to grow. It is indigenous to the Coromandel coast, but requires no higher than greenhouse temperature.

POTATO PLANTING.

I HAVE been a Potato-grower for many years, and have never had so fine a crop as this season. I have changed my method of cultivation, and my plan was this:—To plant upon the piece of land soon after the other kinds of crops were off, giving a sowing of ashes and soot mixed well together and forked-in, and turning over again in the spring as soon as the weather permitted, and again at planting time. About one bushel of soot to six bushels of coal or wood ashes mixed well together is the proportion used, and sown 1 inch thick or more. Begin forking so that the first row will be 1 foot 2 inches from

the outside (the half width of the rows, which are 2 feet 4 inches apart), the plants 1 foot 3 inches apart, and continue digging with the fork about 2 feet, and the plants will be dibbled-in without treading on the planted ground. As my Potatoes were very large this year, some 7 inches long, I intend to lay the ridges more round in moulding-up, as some of the largest Potatoes were out of the ground and turned green; these were nearly all sound. They were a red-skinned Kidney, and grown without any manure.—H. HATLEY, *Saffron Walden, Essex.*

ORCHIDS AND FINE-FOLIAGED PLANTS AT PROVOST RUSSELL'S, FALKIRK, N.B.

A FEW weeks ago I had occasion to write of this ancient and celebrated burgh as the place where the *Auricula* had found a home, and had been tenderly nurtured for many generations. It must not be implied from this that the culture of what are called florists' flowers is the only branch of the gentle science that flourishes here. Rising from the lowly alpine gem to the aristocratic Orchid, of the latter, not even in the world-renowned Meadowbank collection in its palmiest days could better examples of skilful culture be seen than at this place under the care of Mr. Sorley.

It is in the house devoted to the culture of the various species of Orchids requiring an East Indian temperature that the best examples are to be seen. This is a span-roofed structure fitted with staging round the sides and a platform in the centre. The sides are of glass, elevated sufficiently to bring the plants up close to the glass without their coming in contact with it, or being so close that they might suffer in severe weather from fluctuations of temperature. The most striking objects in the house are the *Cypripediums*. *C. Lowei* and *C. Stonei* are represented by marvellous specimens, which have attained such proportions under Mr. Sorley's care. They are grown in the ordinary compost—viz., turfy peat, sphagnum, and broken pots. It is certainly not in the potting material that the secret of success lies, nor is it in the construction of the house, which is admirably adapted for the purpose, but not more so than many other houses. The secret is in the fact of the plants being under the care of a man who not only thoroughly understands their requirements, but has so much love for his plants that their wants as to watering, shading, syringing, &c., are seen to just at the right time. *Cypripediums* require rather different treatment from that accorded to many other members of the Orchid family. The compost should not become so dry as that for *Cattleyas* and allied species, and the plants may be syringed with advantage every day during the summer months. *C. candidum*, *C. Dayanum*, *C. Veitchii*, and *C. Schlimii* are also well managed. *Lælia elegans* *Schilleriana* and *L. elegans* *Turnerii* are the two best forms of the species; the growths were very strong indeed. So were those of *Saccolabium præmorsum* and *S. Blumei* *Russellianum*; of the latter I saw the spike fully 2 feet in length. *Dendrobium triadenium* was here in full beauty, the variety being very fine; the flowers were not pure white, being suffused with a delicate blush. This is very useful for bouquets and flowers at a time when choice flowers are not plentiful.

Passing to the *Cattleya* house some noteworthy specimens are also to be found. *Odontoglossum citroszum* *roseum*, a fine variety, does well in this house. I noticed a fine plant, which Mr. Sorley informed me produced twenty-five flowers on one spike. The best varieties of *O. citroszum* are not at all inferior to those of *O. crispum*. The treatment is different; the first-named luxuriates in a temperature of 55° in winter, while the latter does best in one 10° lower. There were fine forms of *Cattleya Warnerii* and *C. labiata*, but the best varieties of *C. Trianae* were said to be superior to the others. It has been alleged by some who ought to know that the flowers of this New Grenadan species are not so lasting as those of some of the others, and a long discussion was carried on in a contemporary about this short duration of the flowers. Mr. Sorley pointed out a plant to me that had been in flower for two months. Would any other species last longer than this?

Let us just look into the *Odontoglossum* house; here are the best of the Alpine Orchids, for which the uplands of New Granada and the Peruvian Andes have been explored. The best plant of that curious but rather pretty Orchid I have ever seen is here, *Colax ingosus*. The plant had four spikes, furnished with fourteen flowers; the sepals of these are prettily spotted. *Odontoglossum Kramerii* is not very common, and is almost a perpetual-flowering species. *O. Italii* is distinct and

handsome; so is *O. triumphans*, which succeeds with the coolest treatment and plenty of moisture at the roots. Of course *O. crispum* was plentiful, and some nice specimens of *Masdevallia Harryana* served to light up with its brilliant inflorescence the more sombre colours of the *Odontoglossums*. *M. tovarensis* is also a most charming winter-flowering species; the flowers are of the most delicate transparent white, freely produced; one and two-flowered. At one time the culture of the coolest section of *Odontoglossums* and *Masdevallias* was very imperfectly understood, the temperature in which they were grown being kept too high, and the plants too freely exposed to the sun. To grow them well they must be shaded from the sun, and the temperature kept as low as possible during the summer months. No artificial heat is required from early in May until October, unless a frosty night should occur in the interim. In winter the maximum temperature should rise as nearly as possible to 55°, and the minimum be 45°. It is not desirable keep to the roots continually in a kind of marsh, but overdryness either at the roots or in the atmosphere is more injurious to them.

Some noble specimens of Palms and Tree Ferns are accommodated in a large span-roofed stove and a lofty conservatory. In the former structure are fine examples of *Livistona Jenkensis*, one of the broad-leaved Fan Palms; there is also a fine example of *Seaforthia robusta*, synonymous with *Areca Baueri*; this and *Areca Verschaffeltii*, of which there is an equally fine specimen, are easily grown, seldom out of condition, and withal are the most useful species for general decorative purposes in cultivation, and what is not unimportant for many readers, they can be purchased at a cheap rate. *Calamus ovaliformis*, *C. dealbeatus*, and *Chamedorea graminifolia* are also fine useful Palms. In the large conservatory there is a handsome example of *Musa Ensete*, two of the most handsome specimens of *Dicksonia squarrosa* in the country, their trunks nearly 20 feet high; *Cyathea dealbata*, with fronds spreading 20 feet; and *Cyathea Smithii*, with an 8-foot stem. A fine specimen of *Zamia McKenii* sent up a flower spike last year, and after the singular inflorescence disappeared perfect seeds were produced, which appear to be thoroughly ripened.

Another long article might be written to describe the flower garden and the choice collection of coniferous trees. On the lawn many of the newest and rarest species are to be found of large size, healthy, and handsome in shape; but the whole garden is in excellent keeping, though I had the discomfort of seeing it in the proverbial Scotch mist. With the staff of men Mr. Sorley has at command he certainly produces great results.—J. DOUGLAS.

HARDY HERBACEOUS PLANTS.

I HAVE been more or less conversant with these for forty-eight years. Some of them are prized for their flowers and some for their foliage. I will name a few that are beautiful, and which I never saw till this season—*Yucca filamentosa variegata*; *Iris reticulata*, the prettiest spring flower I ever saw; and *Sempervivum arachnoideum*, or Cobweb Houseleek, a great beauty; this and the *Iris* took me more by surprise than any hardy plants I ever saw. But the *Yucca* is very dear—63s. for the plant I saw. The *Y. filamentosa* is a pretty plant, and I have known it for forty-eight years. I have two plants of it now, and I admire it for its foliage, and when it blooms it is very showy. I bought a plant this year of *Corydalis lutea*, and it occurs to me that it is far better for bedding out for a variety in a flower garden than the yellow *Calceolaria*; it is quite hardy, both flowers and foliage of it are pretty, and it stands sun and rain with impunity. The plant I have has bloomed all summer, and now it has hundreds of trusses of pretty yellow flowers on it, about eight flowers on each stem, and clear of the foliage. It is 1 foot high, and 5 feet in circumference. I saw the plant lately in the gardens at Dalkeith Park, and Mr. Dunn, the gardener, prized it very much. It is a native of England, about old walls. There is one in every respect the same, only the flowers are whitish, I think it will be *C. capnoides*. I saw it the other day in full flower at the Marquis of Lothian's, Newbattle Abbey.

If more attention were paid to many of our hardy spring and early-summer-flowering plants and to many of our beautiful shrubs, and we were to abolish to a large extent the masses of blue *Lobelia* and yellow *Calceolaria* that are planted in modern flower gardens, I think it would be a step in the right direction. It is quite a disgust to me to see so many yellow *Calceolarias*,

&c., in our flower gardens, while many far prettier flowers are not to be seen, such as Rollisson's Unique *Geranium*, *Saponaria calabrica*, *Nemophila insignis*, East Lothian Stocks, *Lotus jacobæus*, *Gladioli*, &c.—J. Addison, *Ormiston, Tranent, N.B.*

NEW BOOK.

Proverbial Folk-lore. By the Author of "Songs of Solace." Dorking: R. J. Clark. London: Simpkin, Marshall, & Co.

We never expected to see a book of proverbs printed and published at Dorking. A volume on the good old English fowls which thence derive their name would have been more anticipated; yet the volume before us records that the county gives birth to one proverb: "In Surrey is a saying suggestive of the extreme beauty of its hill and woodland scenery—

'In and out like a Surrey lane.'

while the town of Dorking, of good poultry association, supplies its spirited rifle corps with the denomination of "The Five Claws."

The author has discreetly omitted another Surrey proverb,

"The vale of Holmesdale
Was never won, never shall."

For it never was true if intended to assert it was never conquered; but if it means that it shall never be enclosed it is quite true.

We turned over the leaves of the volume, and read many of them in search of a reason why it could be sent for notice in our columns, and we came to some proverbs which justify it—

"A Cherry year
A merry year;
A Plum year,
A dunn year."

The author does not appreciate its meaning; but it is plain to those who know that Cherries are never plentiful except when their blossoms have a genial spring and summer; and that abundance of Plums causes an increase in the death rate. Another proverb—

"March winds and April showers
Usher in May flowers,"

calls forth this note from the author: "I may be permitted to give a warning against the false hopes which I cannot but think are excited by Dr. Watts when he speaks of the Rose as 'The glory of April and May.' This queen of the flowers can be hardly said to hold her drawing-rooms before June, and our earliest Rose shows are seldom before the last week of that month." Now, we will wager a broad acre of Holmesdale pasture to a foot's breadth of Brandon sand that that comment reveals the unnamed author of the volume. When we wandered about Deepdene and along Holmesdale we must have been near his rosery.

We pass on to a few more quotations—

"This rule in gardening never forget—
Sow dry and plant wet."

That requires in some years the exercise of one of the virtues enforced by another proverb: "With patience and packing even Medlars are made eatable."

We have others marked for quotation, but must conclude with this: "Young people used to be admonished that 'the early bird picks up the worm.' They now pertainly answer, 'What a fool the early worm was to come out so soon and get picked up.' This, however, is an instance of too hasty generalisation. On inquiry it will be found to have been the late worm, and not the early—the worm that would 'not go home till morning'—that got picked up; which makes our moral still more admirable."

In his dedication the author justly observes, "Wisdom and wit are no unworthy yokefellows," and proverbs are illustrations of the apothegm. There are said to be twenty thousand recorded European proverbs. We have an old volume before us of more than three hundred pages, with an average of nearly thirty proverbs on each page, and one of them is "Better half an egg than an empty shell," and it applies to the Dorking volume before us. It is small, but its contents are well selected and well arranged. The author's connecting remarks are apposite, terse, and wholesome, and worthy of proverbs which Bacon said are "the genius, wit, and wisdom of a nation."

KEW GARDENS AND PLEASURE GROUNDS.

Or the public gardens belonging to the capital towns of Europe I know none which for beauty and variety comes up to our own Kew. To all classes of society—to rich and poor, to

old and young, to the infirm and the robust, and to those long pent-up in one of the most populous and murky cities, Kew Gardens offer the means of enjoying within a small space country pleasure with objects of instruction and amusement suited to all tastes. It is a remarkable but pleasing feature of the times in which we live, that the public taste for such places should be on the increase, not merely in Britain but in

Europe generally. Public gardens have become indispensable to large cities and towns, and when properly kept, as Kew is, are not only delightful mediums for instruction in botanical science, but among the greatest of blessings that can be bestowed on a people, abounding as they do in objects of interest that generally make lasting impressions on the mind. Happily there are but few who, however little acquainted with botany,

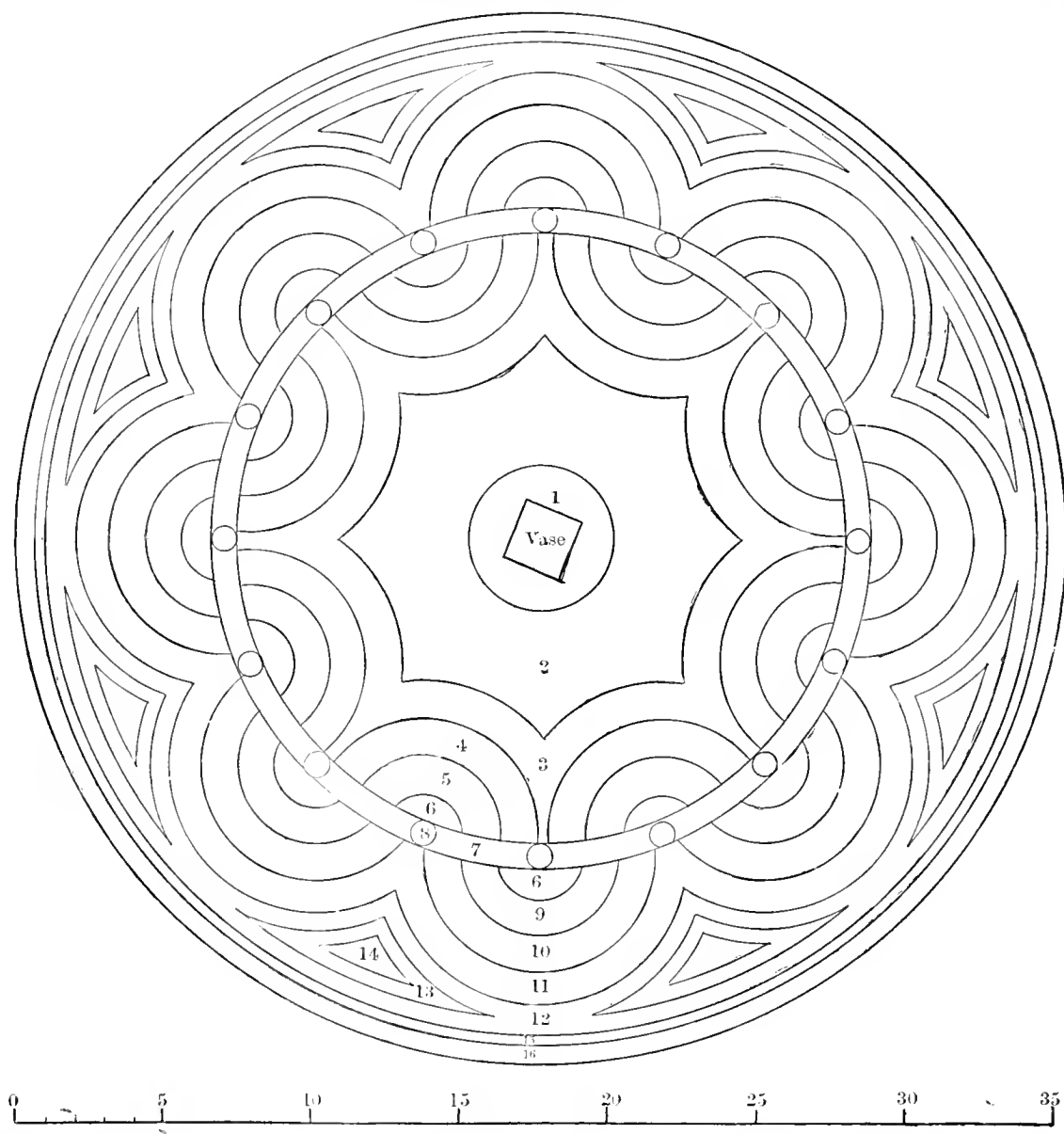


Fig. 113.—BED AT KEW.

- 1, *Perilla nankinensis*.
- 2, *Pelargonium* Waltham Seedling.
- 3, *Centaurea ragusina*.
- 4, *Coleus Verschoffelti*.
- 5, *Pelargonium* Mrs. Pollock.

- 6, 6, *Iresine Lindeni*.
- 7, *Senpervivum urbicum*.
- 8, Centres of semicircles *Echeveria metallica*.
- 9, *Pelargonium* Daybreak.
- 10, *Lobelia speciosa*.
- 11, *Pyrethrum* Golden Feather.

- 12, *Alternanthera magnifica*.
- 13, *Mesembryanthemum cordifolium variegatum*.
- 14, *Alternanthera amena*.
- 15, *Echeveria secunda glauca*.
- 16, Carbstone.

are not more or less filled with admiration at the endless variety of forms presented by a considerable assemblage of the members of the vegetable kingdom—their grotesque trunks and tapering stems; their leaves, so varied in shape and beautiful in structure; their flowers, so curious in parts, so diversified in colour, and often so exquisitely fragrant; also by their wonderful adaptation to the use and gratification of man.

It is very pleasant to see how Londoners with their wives

and families on a fine summer day show their appreciation of the gardens at Kew, dispersing themselves in all directions, some rambling by the riverside under the shade of noble trees, and on secluded paths, stopping here and there at points of view bearing upon objects either natural or artificial. These walks carry the visitors to all the points of attraction, passing Roses, flowering shrubs of great beauty, rock plants, and herbaceous plants, judiciously grouped. In the hothouses you can take a glimpse of the vegetation of the tropics; then there are the

orangeries, ferneries, Cacti, Palms, and other plants too numerous to mention; but in summer the flower beds on each side of the principal walk and in front of the Palm house are the greatest attraction, and to them the gardens owe much of their beauty. The position of the beds is all that could be desired, and the plants are artistically disposed in different figures corresponding to one another, producing the most striking and ornamental effect. The brilliant colours of the flowers are relieved by the more sober tone of the fine-foliaged plants that are advantageously introduced in all directions, which is indispensable now that it is fashionable to intermingle foliage with flowers in groups or masses. A beautiful example of this is to be seen in the accompanying design (fig. 113), for they are disposed so as to correspond harmoniously.—N. COLE, *Kensington Gardens.*

KEEPING GRAPES THROUGH THE WINTER.

To preserve Grapes successfully on the Vines through the winter months, in the first place the crop should be rather on the light than the heavy side, the berries should be more severely thinned than in the case of summer Grapes, and they should be thoroughly well ripened by the end of September. Large bunches should be even more severely thinned than smaller bunches, which latter generally keep better than larger ones, because the air circulates more freely through the heart of them, and consequently damp is not so likely to settle about them. It is also of much importance that the foliage should be kept healthy as long after the Grapes are ripe as possible. Grapes grown in heavy damp soils are not so likely to keep well as in drier borders; and in localities where the autumn rainfall is heavy, it is advisable to protect the outside borders from rain before the Grapes are quite ripe, for Grapes ripened under the influence of wet borders do not keep so well. The inside border should not be damped in any way after the Grapes have commenced to colour, but a slight top-dressing of dry finely pulverised old Mushroom-bed dung should be spread over it, and allowed to become perfectly dry and remain so all winter. Not a pot plant requiring water should be allowed in the house. An equable temperature of from 45° to 50°, according to the weather, should be kept up by means of fire heat when necessary. Extra heat should be put into the pipes on fine days, and air put on at top and bottom to expel damp from the house. Avoid the practice of firing with a view of drying up damp on wet or foggy days. It has the effect of drawing a stream of moisture through the house, to be condensed on the surface of the berries, and cause them to damp. When such weather occurs, rather keep the ventilators shut, and keep a very slight warmth in the pipes. Grapes are now very successfully preserved by being cut before the dead of winter, after the Vines have shed their leaves, with a portion of wood attached to the bunch, which is inserted in bottles of water having a few pieces of charcoal in them, and ranged in rows in racks made for the purpose, in a dry room where the temperature can be steadily kept at about 40°. In this way they can be kept for many weeks; and where it is necessary to have plants stored in late vineries, it is much preferable to leaving the Grapes to take their chance along with them. Of course the flavour of the Grape is slightly deteriorated from imbibing part of the water; but it allows the vineries to be used for other purposes, and the Vines being pruned before there is any chance of their bleeding.—D. THOMSON (in *The Gardener*.)

THE LATE MR. BETTERIDGE.

I MORE that there are some readers of "our Journal" who will sympathise with me in my present unfortunate position. I am threatened with an action, not for manslaughter, but actual murder, and one correspondent evidently gloats over the idea of hanging a parson. The fact is that I have killed the wrong man; for in announcing the death of Mr. Betteridge it should have been, not Mr. James Betteridge of that ilk, but Mr. R. H. Betteridge. The information was given me by a friend, and as they were neither of them known to me personally, I made this blunder. What can I say but "*Mea culpa, mea mazima culpa!*"—D., *Deal.*

NEW HABITAT FOR ERICA MACKAYANA.—The only habitat for this rare Irish Heath was that at Craiggamore hill, and between that and Clifden. In August of the present year it was discovered in its most typical form not far from the newly-

built police station at Carna by that ind-fatigable and very successful explorer of the Irish flora, &c., Mr. A. G. More, of the Natural History Department, Royal Dublin Society. The rare *Erica ciliaris*, discovered at Craiggamore by Mr. Bergin in 1846, and again gathered between Clifden and Roundstone by Professor Balfour six years later, would seem in the interval since to have somehow altogether disappeared from these localities. Mr. More informs us that, at the same time as he discovered the new habitat for *E. Mackayana*, he made a minute search, as also did Professor Balfour and party, for *E. ciliaris*, but without success.—(*Irish Farmers' Gazette*.)

VIOLETS.

THE Violet is one of the most cherished of plants, and held in high estimation by all lovers of fragrant flowers. The colour too—blue, is one not overabundant at any time, and especially in the dullest half of the year. Being hardy, the flower is within the reach of all possessed of a few yards of ground; it is not very particular in its requirements, but thrives in towns as well as in the country, needing only shade, moisture, and moderately rich loamy soil.

The varieties are tolerably numerous, but with only three or four of them the pretty sweet-scented flowers may be secured from September to May, and in quantity proportionate to the number of plants and means. It is not practicable to have Violets with certainty during the winter from the open ground, but they will continue to produce their blooms more or less according to the mildness or severity of the weather. In a frost of a week's duration, the ground being covered with snow, blooms not being forthcoming outdoors, these may be had from plants in frames which are protected by mats from the severity of the weather. A narrow pit along the front of a greenhouse or other house, cold of course, but deriving some warmth from the house adjoining, and having a south aspect, will, with a mat over the lights, be found a desirable means of growing them, the plants being planted so as to have their leaves from 4 to 6 inches from the glass. The best time to plant them in frames or pits is the end of September, but it may be practised up to November, the plants being moved with balls of soil, and after planting well watered. They can hardly have too much air if frost and heavy rains be excluded; and about a fortnight after the plants are put in look over for yellow leaves, which at once remove, and a dusting of charcoal pounded small dusted over the plants, brushing the leaves afterwards with the hand so as to dislodge any charcoal that may have settled upon them, will be found useful in preventing mildew. Charcoal dust also improves the hue of the blooms, making it deeper.

By April the blooms from the plants in frames will be over; they are then taken up and divided, the crowns, having each nice roots are sorted, the strongest forming one lot, and the weakest the other. They are planted in rows a foot apart, and that distance from each other in the rows for such kinds as Czar and Victoria Regina, also Queen of Violets; but the Neapolitan and Double Russian (purple) and King of Violets are planted in rows a foot apart, and 9 inches from plant to plant. A north border is chosen, liberally manured, and leaf soil added, in which the roots of the Violet delight. They also prefer rather strong loam to a light and sandy one. After planting watering is duly attended to, and during summer weeds are kept down and runners cut off as they appear. I do not consider runners nearly so good for propagation as suckers, and do not keep them longer than time can be spared to remove them. Plants for outdoor flowering are treated in the same way, fresh plantations being made every year and the old destroyed. Young plants afford finer blooms than old ones, and, growing stronger, are not so liable to red spider. For avoiding this pest a few dressings of soot are the best means, with liberal waterings in dry weather. The soot may be applied every month from May to September.

The pot-culture of Violets I have abandoned, but those wishing to grow them in that way will find plants grown in the open air far superior to those kept in pots in frames if taken up in September or October with nice balls of soil, potted, and placed in a frame on ashes, duly watered, ventilated, and the yellow leaves removed, to be introduced to a light airy position in a greenhouse, and set on a cool bottom. The tree kinds are best for pot-culture, and those even are not so healthy kept in pots through the summer. Better plant out in spring, keeping off all suckers and other hindrances to a tree-like growth, and pot early in autumn. The Chinese Tree Violet (*Viola arborea*)

and its variety alba; Brandyana, with very sweet flowers, striped with white, rose colour, and blue, are distinct and good; King of Violets also making a good tree. The above are the best. I have had nice plants with stems or "trees" of the Double Blue, Double White, and Neapolitan varieties of *Viola odorata*, the only thing needed being to keep down runners and suckers.

The Violets I grow in frames and outdoors, and by which we have Violets from September to May, are—

The Czar, a strong-growing variety of Russian, and every way its superior, having larger, sweeter flowers, with longer footstalks. Single, dark blue.

Victoria Regina.—The foliage is deeper and more shining than The Czar, the leaves individually larger, less tall—in fact, they lie almost flat and near the ground; the flowers are half as large again, very deep purple, single, very sweet, the flower stalks being as long as The Czar. It is very free-flowering, and will displace The Czar with me as soon as I can increase the stock sufficiently. Upon the runners it flowers very freely, and affords a few flowers in summer, being a perpetual bloomer, but is finest in autumn and winter. It would, I think, form a fine tree, its leaves being semi-pendant.

White Russian (*Viola suavis alba*).—Single. This is very sweet, very free-flowering, and late with me, but has short footstalks. A white Victoria Regina is desirable.

The Single Blue Russian I have discarded, but it is very free-flowering and good.

Double Blue or Purple.—Dwarf and weak in growth, flower stems short, free-flowering, and rather late. Double White has been passed for better.

Queen of Violets.—Double, white, as large, almost, as a double-flowered Peach blossom; the flowers tipped with blue or violet, with longish footstalks, very sweet, and so abundantly produced that they do not all fully expand; they should be thinned, for no flower is, when fully developed, more beautiful. It blooms longer than many.

King of Violets.—Taller, rather stronger-growing than Double Purple; the flowers are also paler in colour, and it is not nearly so free in suckers or runners.

Neapolitan.—Double pale blue, or sky blue, pale green shining leaves, growth moderate, plant dwarf, but not so dwarf as Double Purple; very free-flowering, blooming a long time, flower stems of medium length. Deliciously scented—the sweetest and best of all Violets.

What is *Viola pedata* like? Are the flowers sweet? They are I know very large, if I remember rightly, and the leaves are deeply divided, the flowers pale blue. Is it a good grower? and at what time does it bloom? A single pale blue with a good long footstalk is worth having, but it must not lack fragrance, or it would be like a Rose without scent; few would care to know it by the name of Violet.—G. ABBEY.

STRAWBERRY CULTURE.

THE question is often put to a gardener by those little acquainted with the cultivation of the Strawberry, "What sort must I grow?" This is rather a puzzling question to answer, though the sorts grown by oneself may be everything that can be desired. If the information is given to anyone living close by, perhaps he may be able to grow the same kinds as yourself; if to one at a distance, and not knowing what kind of soil he has to deal with, it is best to be careful in giving advice, but let him get it from some practical hand nearer his residence.

I had an idea in my younger days that any kind of Strawberry grown in one place would succeed equally well in another, but such is not the case; and it appears from recent correspondence in the Journal each gardener claims to have the best sorts. I have come to the conclusion after trying various kinds, and some of them with me very indifferent, that it is not just to the raiser for any one individual to condemn any sort not coming up to his expectations. I bought a few plants of Eclipse to get runners for forcing, it being praised in the catalogues for that purpose. I had crowns large enough for anyone to admire, and expected to have something good in return, but am sorry to state they were a failure, and the plants outside the same. If I were to say this kind is of no good it would be going too far. Many like it for forcing, and a friend of mine who has strong clay to contend with gets an excellent crop from it. Admiral Dundas, Sir Joseph Paxton, and Eleanor I could not get to bear fruit up to the mark, and I could name one or two; but this is sufficient to show it would not do for me to say they are worthless, knowing them to be excellent in many places. I settled down some time since to Dr. Hogg and President. In my dry soil they are everything that can be desired. Princess Alice Maud does well, also Keens' Seedling.

President I consider first-rate for forcing. Your correspondent Mr. Taylor failed with the latter in strong soil; has he tried runners for forcing since planting them in lighter soil?

I always obtain the finest fruit from plants two and three years old; after that time the fruit is smaller. I may also add to these few remarks that I can secure very good crops of fruit from President, planting them out after being forced.—M. B.

SEA-KALE CULTURE.

As the commencement of the Sea-kale year is at hand, a few notes on this vegetable may be useful. Sea-kale, like many other kitchen-garden crops, will not succeed on every soil without some trouble in preparing the ground; but if my directions be followed the failures will be few.

In settling upon a piece of ground to be cropped with Sea-kale in the following year, let it be freely exposed to the sun, as the more the sun can get at the leaves the better will they perform their work of storing up strength for future use. To give satisfaction when forced, be it a Vine or a Sea-kale crown, the plant should be well ripened. The size of the plot must be in accordance with the wants of the family; the quantity of Sea-kale likely to be wanted can be settled pretty well beforehand. Stretch a line, and every 3 feet wide nick the ground out with a spade one graft deep; then count how many widths there are in the piece; if even in number, then the soil can be put opposite the top of the last one; if odd, to the opposite corner. Here a word to young hands with the spade. Before ever taking out soil for a trench, be it one spit or two, if there are any weeds skim them off first, and do the same in the place the soil is wheeled to. By this precaution you will make sure of the weeds buried not cropping out in a week or two from the corner where you finish off. If two men start upon the piece their trenches will be required to be in different places if there is an odd number of widths.

The starting trench should be taken out 3 feet 6 inches long, two spits deep; the reason for the extra 6 inches is that owing to the soil being loose it does not build up quite straight, so that when the last trench came to be filled up the soil would be short. A two-spit trenching is for the majority of soils sufficient; but if it is desirable to go deeper, and the soil is of a bad nature, either wet clay or very poor, it is not advisable to bring it to the top on the first trenching, but to turn it over with a digging fork, breaking it up, and leaving it at the bottom. On this spread a good dressing of manure not too much decayed; or if manure is not to be had in unlimited quantity, there is nothing better than the rubbish heap, which should be kept for this purpose—sweepings of walks, leaves, cabbage stumps, weeds, not seeding ones, in fact all the rubbish that will accumulate in a garden. After a 6-inch layer of this turn the top spit on it, then a good dressing of manure well decayed, then the bottom spit upon it, at the same time throwing it up so as to form a ridge. By so doing the ground lies drier, and is more exposed to the action of frost.

Leaving the ground to mellow all winter, we will now turn to the plants. Those who have roots growing should, as soon as the foliage is dead, take them up carefully with a fork, picking-out every bit of root, for if not wanted the bits would only be troublesome in the following year. Having taken up the roots, dress them all off to straight pieces 6 or 7 inches below the crown. Select all the roots that are thicker than a pipe stem if the stock is low—if there are plenty, those of the thickness of the middle finger are better; taking the best first, with a sharp knife cut each straight off at the thickest end, and at 5, 6, or 7 inches as the stock will allow. Cut in a slanting direction, by so doing you will have an easy mark to tell the right way up, not easy otherwise, as the difference in diameter in the 6-inch length of root is sometimes very trifling.

Having made the required quantity of sets, place them in sandy or any nice light soil, as siftings from under the potting bench, in a turf pit or any dry sheltered corner out of doors, where they can have some litter thrown over them in frosty weather. Plant them in lines, keeping the strongest all together, and 2 inches below the surface. Here they will remain till the beginning of March; by this time they will have begun to root, so that any that are dead or doubtful can be rejected, thus preventing blanks. The ground should now be forked down and levelled; mark out rows 2 feet apart, and take out trenches with the spade deeply enough for the cuttings to be placed 1 inch below the ground level, allowing them from 10 to 12 inches apart in the row, and if the cuttings are small less room between each two. By keeping the top of the cutting

below the surface there will be little need for thinning-out crowns; some may push two and three, but let these remain, as in ground treated as above they will perfect three strong crowns. I have tried the dibber, but like the spade best, as it leaves the ground in better order, particularly if it is of a heavy nature.

Those who have not a stock to start with should order one-year-old seedlings from the nursery, cut off their heads, and make cuttings of them. A few years ago I was short, not having two dozen roots to start with, so I ordered a quantity of roots and planted them. I had to wait two years more for them before they were fit for forcing. The year following, or rather the spring following, I sowed some seed, and in November dug them up, made cuttings of them, and had fine roots for forcing the next season. Those that have a wet heavy soil know full well that Sea-kale will decay quite as fast as it grows, if it must remain two or three years in the ground. By adopting the routine described above the Sea-kale never stays in the ground all winter; the cuttings certainly do, but they are extra well cared for.

The summer culture consists in hoeing and keeping clear from weeds. When growing freely, towards the end of July give a watering with guano if the weather is dry, if wet sprinkle the guano over the surface. Never let the roots be exposed to drying winds, but as soon as dug up dress the crowns for forcing, make the roots into cuttings, and put them away in their respective places; all that is dried out of them is so much strength wasted.

The forcing of Sea-kale is a simple matter. The main point being darkness, light should be guarded against, as the least amount will render it tough and unpleasant. Those who have a regular Mushroom house need nothing further. Those who have a warm cellar could have nothing better. The best place that I ever saw for either Sea-kale or Rhubarb forcing was a cellar attached to a stovehole. Gas was laid on, so that the striking of a match at once furnished light that was equal to daylight, for the purpose of watering and cutting. The cellar was divided by a path up the centre; on one side was a bed of Rhubarb, and the other Sea-kale. The bed was 3 feet 6 inches wide, and the crowns were put in 3 inches apart and six in the row. The bed was made-up in November, as soon as they were lifted from out of doors, and the temperature of the cellar not being very high, the plants did not furnish any cuttings till the middle of January, but kept-up a constant supply for nine or ten weeks, as the crowns did not push all together, and the low temperature brought on the second cutting so gradually that it was little inferior to the first. Another bed was made-up in January to succeed the first, the crowns having been packed in sand out of doors till wanted. The two beds thus furnished a supply as long as Sea-kale was asked for. Contrast this with forcing out of doors with hot dung and leaves, going out on a cold frosty morning when there might be 6 or 8 inches of snow on the ground, kneeling on it or on wet manure, and having to shift a cartload of manure before getting the required quantity of shoots; it being of little use to put manure around the pot if it must be on the top as well, and be removed every time you wish either to look at or cut the Sea-kale.

Everyone, however, has not such a place, myself included, and my own way may be of service to some. For Christmas cutting I place some of the strongest crowns in 12-inch pots early in November. On these, after having well watered with warm water, I invert another 12-inch pot, and stop up the drainage-hole and any other crevice to exclude the light, and place on the top of the boiler in the stovehole. Here the roots must be carefully watched for water, as the heat is of such a dry nature.

For my main crops I use old wine casks filled half full of soil, the crowns inserted to their level. I use soil that has been once employed for potting. Such soil as *Pelargoniums* have been growing in is excellent if mixed with soil from Melon and Cucumber beds. Some have plenty of turf to cut at, and can afford to use fresh soil for anything. Not so here; sods are not to be had for asking. After having been filled, the casks are stacked upon one another in a back shed. We take one out at a time, place it on the boiler, and when the shoots are of sufficient length they are taken into a cool shed, where they come on slowly, and afterwards furnish second cuttings. When there is plenty in beforehand I do not let them remain on the boiler longer than just to start them. The last lot will start naturally, and come on fast enough.

For very late supply it is best to put out some crowns in

the frame ground, or any other convenient place, in clusters, covering them 3 inches deep with ashes, and inverting a pot over them—a Sea-kale pot with a lid being a great deal handier than common flower pots. These, without any covering, will furnish a late supply, care being taken to exclude light. Whenever in a hurry to get Sea-kale ready for cutting, use warm water. I have repeatedly used it over 90°, a dose or two never failing to start the roots.—W.

CARCLEW, CORNWALL.—No. 2.

THE RESIDENCE OF COLONEL TREMAYNE.

ASCENDING to the second garden, which was in some degree a counterpart of the first, we find ourselves amongst a class of shrubs and trees elsewhere only met with in similar condition under glass. Below and at one side of these geometric gardens the ground has been allowed to retain its natural outline, and the slope, intersected by suitable walks, is overgrown in places with noble trees and shrubs. *Rhododendrons* of all kinds seem quite at home, even including some of the Sikkim and Himalayan ones; and the same may be said of the *Camellia* and Indian *Azalea*, noble examples of which were every now and then to be met with; while the *Bambusas* formed growths from which very good fishing-rods were made. One was shown me quite 15 feet long. A *Loquat* tree, *Eriobotrya japonica*, was 10 feet high, as much through, and in the most robust health. The same may be said of *Eseallonia pterocladon* quite 15 feet high, having white flowers, and more tree-like in character than the other species. The singular *Colletia bicloniensi* was also here in the shape of a dense bush quite 7 feet in diameter; and there were specimens of *Fabiana imbricata* quite as large. I find I have omitted to notice a fine mass of *Hedychium flavum* or *flavescens*, which to all appearance had not been disturbed for many years, and was flowering most abundantly. This plant, I ought to say, was growing in front of one of the plant houses, and not in the shrubbery with the *Loquat*. I noticed a *Rhododendron* of the true arboreum section, or one very near akin to it, with a clear hole more than 6 feet high without a branch, and stout enough to form a gate post for a carriage road. Others of the *Smithii* type were equally large, and many of the Sikkim species seemed equally at home. *R. Thomsoni* was pointed out to me as being very fine. The general character of the place must be extremely rich at the time these shrubs are in flower, and when it is understood that some of them flower in winter accompanied by *Camellias*, the effect must be gorgeous. Intermixed with these *Rhododendrons*, &c., were *Magnolias* of the deciduous class, assuming the character of timber trees, and there was no lack of flowers on open standard trees of *M. grandiflora* at the time of my visit (September 1st). There was also an *Aesculus* of a class not generally known, said to be very fine; while underneath, creeping over rugged stonework, were dense masses of *Gaultheria Salloni*; and a tall half-shrub-looking plant, *Polygonatum Sieboldii*, was completely covered with its white inflorescence. I understood it to be herbaceous, although it was quite 8 feet high and as much in diameter. *Pampas Grass*, *Camellias*, and Indian *Azaleas* were noticeable everywhere, and in all manner of sites. A pretty *Hypericum*, *H. oblongifolium*, had just gone out of bloom, while *Pernettya mucronata* was still in flower and gave promise of producing a quantity of its fine magenta-coloured berries; there were trees of it quite 10 feet high. A fine *Rhododendron cinnamomeum* was of the same height; the under sides of its leaves are of a rich brown, and its flowers are said to be magnificent. There were also *Azaleas* of the *Indica* type quite 10 feet high and more than that in diameter. *Sparmannia africana*, ordinarily a greenhouse plant, had stood for years out of doors. Part of these as well as most of the following were growing in what is called the Pond Garden, a sloping shrubbery running down to a pond.

Amongst other trees and shrubs at this place was a fine *Abies Douglasii* from 65 to 70 feet high, and upwards of 8 feet in circumference at 5 feet up; and in reference to the height of this and other *Conifers*, I may mention, that when any tree seems to overtop its neighbours in this part of Cornwall its top is immediately cut by the wind, so that the tops of this and other tall-growing *Conifers* had an injured and shabby appearance compared with the parts below; and as the great bulk of the sheltering trees were Oaks, the aspect of woods, even when extensive, was in exact conformity with the ground, otherwise such trees as the Douglas Pine mentioned above

and Pinus Morinda and others would have been much taller; but as it was, the latter was from 65 to 70 feet high, and 5 feet 9 inches in circumference at 5 feet up. Pinus patula, a fine long-leaved species, was upwards of 30 feet high, and the spread of its branches attained a circumference of upwards of 120 feet, and its trunk was 6 feet at the usual height of 5 feet up; a fine specimen. Salisburia adiantifolia, 40 feet high. Cedrus Deodara also 40 feet, with not so much of the propensity to merge into the Lebanon type as is manifested in some places. A deciduous Cypress was 30 feet high, while an Oriental Plane was 70 to 75 feet high, with a girth of 12 feet—a fine tree, yet not more so than a venerable Silver Fir growing in a rather low situation, that was from 85 to 90 feet high with probably 15 feet or more gone from the top of it. This had also a girth of bole at the ordinary height of 5 feet of nearly 10 feet. Magnolia tripetala, 35 feet high, had a fine head. Intermixed with the above or adjoining were plants of Rhododendrons of the true arboreum and Smithii section attaining the proportion of trees. One fine one I noticed, and was told by Mr. Palmer that it was 24 feet high, with a stem nearly 4 feet in circumference; while a more bushy specimen of the same kind had a circumference of head of 55 feet, and a height of 12 feet. Other crimson varieties were from 18 to 20 feet high; also R. Falconeri, Aucklandii, campanulatum, Maddenii, &c.

Interspersed were Phormium tenax, 7 feet high and as much through; Bamboos 18 feet high; and the Snowdrop Tree, Halesia tetraptera, that had the appearance of having been beheaded by the wind, but had a stem of 4 feet 6 inches in girth, and bloomed freely. That useful Cape plant, Agapanthus umbellatus, seemed as much at home as the native Grasses. Berberis nepalensis, a specimen not often met with, and differing widely from the japonica or Fortuni section, was also in a flourishing condition 10 feet high; while a Lucombe Oak adjoining the fernery was about 65 feet high, and with a stem of 9 feet 6 inches in circumference. In another place Chimonanthus fragrans formed a fair-sized tree, and Cotoneaster frigidula approached the same proportions, being 25 feet high and nearly as much through. Ever and anon the eye rested on some noble specimen of choice or well-grown Ferns, Lomaria magellanica being quite at home, as much so as Osmunda regalis, of which specimens rivalling in size many Laurel bushes, were to be met with; and now and then a tropical character was given to the picture by fine specimens upwards of 8 feet high of Dracæna indivisa, which, I was informed, flowered annually, and had stood out several winters. Yucca recurva was also present, and a species of Leptospermum was upwards of 8 feet high and nearly as much through. Accompanying these were fine plants of Azalea indica alba; and Gunnera scabra, so often employed in flower gardens where striking foliage is wanted.

Embothrium coccineum was said to be a mass of scarlet when it is in flower, and near to the same place were some good examples of Pinuses, P. patula being very fine; while Abies Kämpferii was still more remarkable, being 18 feet high and 14 feet through, healthy and vigorous. In many places it is only with difficulty that it can be kept alive; I think we have one here (Linton Park), that has been planted some eight or ten years, and certainly it has not grown more than as many inches, but at Carelev the tree is as robust as a Douglas Fir.

In the pinetum proper are Deodars showing a less tendency to merge into the Lebanon type of Cedars than others do elsewhere; P. insignis, of timber size; the pretty Abies Bruniana, with its Fern like foliage, that will hardly attain the dimensions of a large tree. Not so, however, Abies Alberti, which promises to equal Taxodium sempervirens in size, while excelling it in rapidity of growth, as one here was not much short of 20 feet high; Taxus adpressa, a very dark-foliaged species, about 10 feet high, not having been planted many years; and even the rarely-to-be-met-with Umbrella Pine of Japan, Sciadopitys verticillata, was in a healthy and promising condition, although it had not been planted many years; it had, however, as well as everything else previously mentioned, proved quite hardy, and was clothed with its fine tropical-looking foliage all over. Perhaps, however, a more promising tree is the New Zealand Dacrydium with its dense broad head of a dark green colour. Still more likely to form tall fine trees were Thuopsis dolabrata and T. dolabrata variegata, both of which had, I think, attained the condition at which they start into upright growth, while all the Japan Retinosporas were doing well. Abies canadensis, the Hemlock Spruce, was 50 feet high, with a circumference of stem of about 3 feet; Cryptomeria

japonica, from 45 to 50 feet high and 5 feet in circumference of stem; while there were several promising plants of C. elegans upwards of 8 feet high, which assume the same bronze-coloured hue in Cornwall that they do elsewhere. Picea grandis, said to be true, measured 7 feet; Abies firma, a comparatively new species, 8 feet and promising; Abies orientalis, 25 feet high, and Picea Nordmanniana the same height and every way promising; Abies Menziesii, 50 feet high, with a stem 4 feet in circumference; Picea grandis, 36 feet high, and stem of 3 feet in girth; Araucaria imbricata, 35 feet high, but on the whole not so much at home as some of the other Conifers, more particularly Cupressus macrocarpa or Lambertiana, which was from 55 to 60 feet high, and with a stem 8 feet in circumference at the usual height; the Douglas Pine and Pinus insignis, the former 75 feet and the latter 70 feet high, with each a girth of nearly 8 feet of bole. Growing near to these fine specimens was a Cork tree of 40 feet high, and a specimen of deciduous Magnolia of the same height, and with a stem upwards of 4 feet in girth.

Some noble Oaks of the Lucombe variety deserve special notice; in fact these fine trees standing amongst others, common Oaks, a little way from the mansion would seem almost to excel them alike in the length of bole and its girth, as I find the following measurements kindly taken for me by Mr. Palmer testify. No. 1 from 75 to 80 feet high, and 9 feet 9 inches in circumference; No. 2, same height, and 10 feet in circumference; Nos. 3, 4, and 5 same height, and 12, 9 feet 8 inches, and 11 feet each respectively in circumference; while Nos. 6 and 7 were from 70 to 75 feet high, and 10 feet 6 inches and 9 feet respectively in girth; No. 8 being from 65 to 70 feet high, and 9 feet 3 inches in girth, the circumference in every case being taken at 4 or 5 feet up, and where no undue swelling increased the size; in fact these trees look almost as large at 30 or 40 feet up as where measured, and it is seldom we meet with such fine ones. The foliage does not begin to fall till January. Some very good specimens of Cupressus macrocarpa were also shown me, likewise others of the Hemlock Spruce and Taxodium sempervirens, the latter, as is the case everywhere, very promising. Eugenia apiculata was also good outside, its upright growth and clear evergreen foliage equalling that of a large Box tree. A fine Oak that partially shaded the fernery presented a bole of quite 40 feet without a branch, and was also of great thickness; while near to it was a cut-leaved Alder, Rhamnus alnifolia, a fine tree, as was also Abies Morinda or Smithiana, the latter rivalling the native Spruce in robust growth. The Magnolias were particularly fine, M. tripetala, Soulangeana, Thompsoni, and others being all good. To the lover of Ferns I may mention that on each side of the margin of an ornamental piece of water of an oblong shape were growing two of the finest plants of Osmunda that were perhaps ever seen, one being opposite the other, standing clear of everything, one of them at least in the full sun; yet they were as even a pair as could be wished for.

We now retrace our steps to the kitchen garden, and there find that Mr. Palmer has turned to good account a material which occurs abundantly in the neighbourhood—quartz or spar, broken pieces of which are used as an edging, and its white sparkling appearance has a good effect. The garden proper has perhaps a greater descent than might be wished; but in other respects it is correctly placed, and the glass houses are commodious. First of all I was shown into a stove, in which Orchids that required considerable heat were grown, but another house kept much cooler contained by far the most important collection. I noted a magnificent Alocasia metallica, a dense mass of foliage from 7 to 8 feet through, and too large to move to any show; it was growing in a large pot which had been further enlarged by a strong wire hoop surrounding the rim, by which means turf of a peaty nature was supported round this noble specimen. Anthurium regale was also good and large, as was that fashionable Fern, of which by far too much notice has been taken in my opinion, Adiantum farleyense. Maranta spathulata was also good, as was Pteris umbrosa.

Notable among the Orchids in the cool house was Disa grandiflora, a large plant, with six spikes of bloom upon each spike, having some half-dozen fully expanded blooms out at the time of my visit, with others to follow, and the flowers resembling large outdoor Frises, or rather the old Tigridia pavonia flowers. Mr. Palmer keeps the plant much cooler than is generally done, and had a mass of young plants standing in a cool frame over a pool of water. I hope he will give us all a lesson on the growth of this important plant, for it is sel-

dom seen as at Carclew. *Lasiandra macrantha*—not an Orchid, I need hardly remark—was subjected to a treatment different from what it generally gets elsewhere. Occupying a 10-inch pot, I understood it had been set out of doors to harden in the early part of the summer, and was afterwards brought in and placed against a wall, when it commenced to grow and flower, and at the time of my visit was a mass of flowers, equaling those of some of the violet Clematises, and occupying a space against the wall quite 12 feet high by 9 feet wide, its roots still confined to the 10-inch pot alluded to. Near it were some fine Palms, as *Seaforthia elegans*, *Sabal Blackburniana*, *Corypha australis*, and others, not omitting the general favourite *Latania borbonica*. *Adiantum rhomboideum* and *tenerum* were also at home, both of which are prettier objects than *A. farleyense*. We now come to some of the Orchids, and found the *Aërides* very good, *Angraecum eburneum* large and evidently at no distant time to be well covered with bloom, *Dendrobium pulchellum* in a basket very good, *D. Pierardi* in

much the same condition, *Cattleya crispa* in a pan 2 feet wide also very fine, *Brassavola Digbyana*, bright orange, while creeping on a sort of cork slab was the interesting *Sophranitis cernua*; in fact, Mr. Palmer had turned virgin cork to many useful purposes; and I may add for the information of intending Orchid-growers that he finds living moss a better medium to grow them in than dead. There are besides many noble specimens of exotic Ferns, with flowering and fine-foliated stove and greenhouse plants too numerous for separate mention.

On emerging from one of the houses I was struck by a plant often grown inside—*Hedychium Gardnerianum*, which was freely luxuriating, and from 6 and 8 feet high; I was told it stood the winter with the protection of some ashes. More hardy but not less beautiful were the Guernsey Lilies flowering in great profusion, and in less-favoured places *Fuchsias* of the white-sepalled class were vieing with the more hardy kinds in furnishing their quota of flowers to assist in the general display.

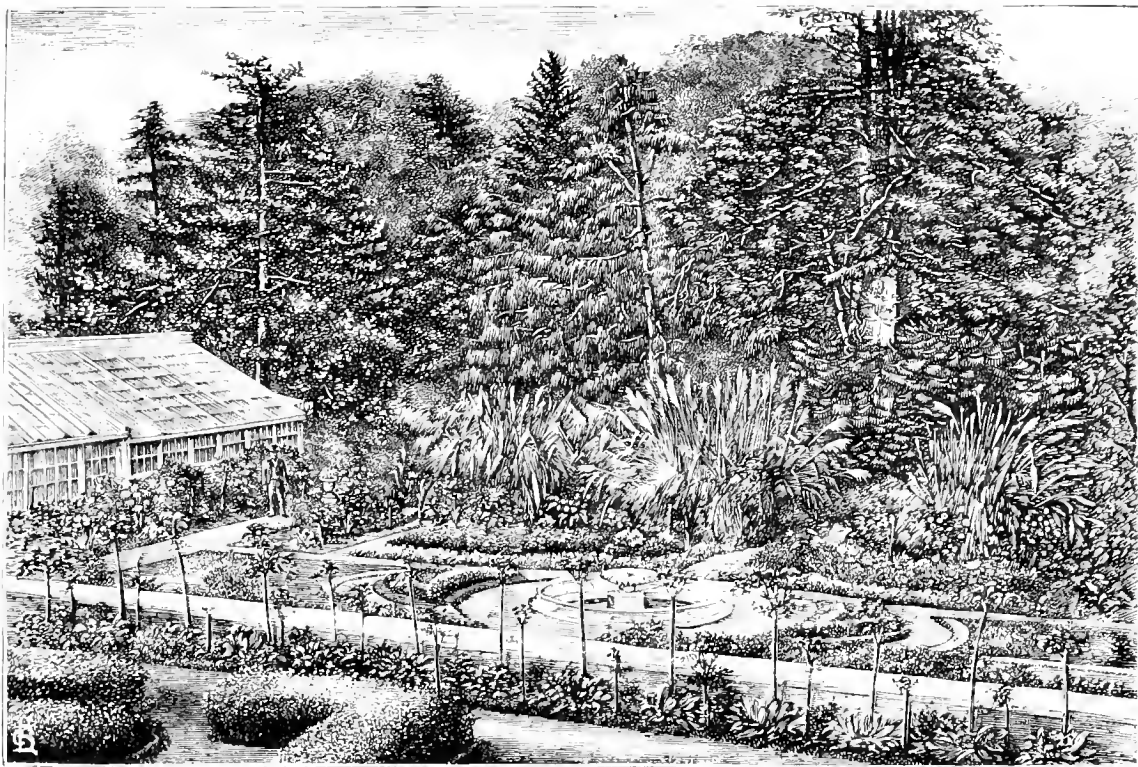


Fig. 114.—CARCLEW.

The Grape houses, in the course of being renovated, looked equally promising; and the contents of the kitchen garden presented the usual features of good cultivation. There were some excellent Peaches, very fine Pears, and good-looking Apples; but I incline to the opinion that better-flavoured Apples are grown nearer London, at the same time I should say the Cornish ones are the finer-looking. I cannot conclude this notice without alluding to what is an important matter in all garden establishments, and that is the gardener's cottage; in this instance Colonel Tremayne has built a very suitable one for Mr. Palmer, one far better than is usually erected by architects.—J. ROBSON.

DESCRIPTION OF THE VIEWS OF CARCLEW.

Fig. 111, page 384, illustrates a part of the pleasure ground. The trunk of the tree so prominent in the foreground is a Lucombe Oak, not the largest, but decidedly the handsomest. On rockwork to the left can be seen a fine mass of *Lomaria magellanica*; and on looking across the large bed of Camellias and Rhododendrons, an ancient Silver Fir that has been over 100 feet in height. Dotted around this on grass are seen fine bushes of Rhododendrons, &c., while on the right can be seen a portion of an ornamental pond. On a terrace some 25 feet higher than

this pond can be seen a block of glass erections, consisting of an Orchid house, plant stove, and intermediate house for flowering plants, &c. Still rising very rapidly can be seen something of the kitchen garden, the wall most conspicuous dividing the kitchen garden into two portions. The mass of foliage at the back of the houses is produced by a wooded shrubbery, the undergrowth being masses of *Rhododendron ponticum*.

Fig. 114 is taken from the end of the terrace next the kitchen garden. The garden with the fountain and basin in the centre is in front of a block of three houses; the garden is geometrical, consisting of twelve beds with borders at the sides, &c., on gravel, the beds edged with Box. The four beds through the centre in line with the basin are carpet-bedded; four others flanking the basin are all planted alike with Geraniums, Calceolarias, Perilla, and Lobelia. Outside these, and as it were surrounding them, are four other large beds, which are planted with herbaceous plants, &c., and a row of Dahlias down the centre. In front of the hothouse can be seen a mass of *Belladonna* Lily, Myrtle bushes, &c. Besides the Pampas Grasses, in the angles of four herbaceous beds stand *Colletia hicksoniensis* and *Hypericum oblongifolium*. In the fountain basin are *Limncharis Humboldtii*, and *Aponogeton distachyon*. The terrace above is also a geometrical garden of twenty-seven beds, with borders, on gravel, with Box edging, and planted miscellaneously with annuals, Violas, &c.;

the Violas, with a bed of *Lobelia cardinalis* St. Clair, being a great success. Behind the Pampas Grass, to the right can be seen the spreading head of *Pinus patula*.

The views have been engraved from photographs by Messrs. W. H. Dunstan & Co., 9, Berkeley Vale, Falmouth.

BUERRÉ DIEL PEARS GROWN AS ESPALIERS.—I have four trees 5 feet high in a row extending 9 yards. They were planted five years since. I have not had a crop off until now. To-day, October 15th, I have gathered 252 Pears, weighing 96 lbs. 9 ozs.; the largest weighed 12 ozs., about four dozen 10 ozs. each, six dozen 9 ozs. each, the remainder ranging from 8 ozs. to 2 ozs. each.—J. F. M., Nottingham.

NOTES AND GLEANINGS.

This is now the season when out doors and even in the conservatory the CHRYSANTHEMUM reigns supreme. In the Inner Temple Gardens there is an unparalleled display of bloom—one such as would have gladdened the heart of worthy old Broome, and one of which his more youthful successor, Mr. Newton, may well be proud. On visiting it yesterday we were quite surprised to find the flowers in full beauty, and still more surprised at the immense size of the majority, whilst so perfect were many that one would have suspected they had been manipulated, but such has not been the case. Golden John Salter, Golden Nugget, Nil Desperandum, Garibaldi, and Empress of India are only a few of the many notable for their great size. We also noticed a promising new pale yellow called George Glenn. In the Middle Temple Mr. Dale has also a show, and a profusion of flowers on the Pompons in the beds. The Pine Apple Nursery Company have likewise, in their fine conservatory in the Edgware Road, a large collection of the best varieties grown in a different style from the plants just noticed, the aim being decorative effect rather than size of the individual blooms, consequently the same severe thinning which is necessary to secure the latter object has not been practised, yet the result is excellent—just such as a gentleman with a good gardener, with good means, and good varieties might expect from these in his conservatory. Round the fountain facing the entrance there is a grand group of specimens covered with multitudes of flowers, and good ones too, whilst in other parts of this glass-covered quarter of an acre plants are here and there disposed singly and in masses.

—THE Duke of Leinster has been unanimously elected President of the Royal Horticultural Society of Ireland, in room of the lamented Duke, who was president for nearly forty years. No worthier or more distinguished selection could have been made.—(*Irish Farmers' Gazette*.)

—HAZEL in low districts is usually dark-coloured in the bark, and not so highly esteemed as the light-coloured variety, which grows chiefly in Wales and the Highlands of Scotland. White Thorn, if peeled soon after cutting, has yellow lines marking the circulation of the sap, but these can be scraped off. Black Thorn with the bark off makes the finest "white" Thorn, but they are most valued with the bark on, the knots closely set, and triple spikes, if possible, at every knot. Briar is the most easily got of all the varieties, and it is remarkably strong. Should it not taper enough it may be reduced so as to give it the shape. Those that grow on a breezy hillside often rub against their neighbours, thereby producing eccentricities which improve the sticks by "individualising" them. Rowan, or Mountain Ash, makes a good tramping stick, though it has not much appearance, and, with common Ash, it has the property of not firing delicate hands. Common Ash shooting from an old stem, when thoroughly smoothed and varnished, shows fine silky threads streaking its white surface. Broom and Berberry have the prettiest barks both as regards streaking and colour, and both can be stripped should it be injured. Oak, unless a shoot from an old trunk, is not worth the trouble of making into walking-sticks. Gorse or Whin gives by far the prettiest markings of any barked stick, and is remarkably strong.—(*Cassell's Household Guide*.)

NOTES ON VILLA AND SUBURBAN GARDENING.

The dull month of November is now upon us, and after this something like winter weather must be anticipated. I would therefore advise those who have an idea of entering into *winter and spring gardening* to set about the work at once; and I wish it to be understood that, in order to do this at its proper time, it sometimes happens that some beds tolerably passable in

appearance will have to be sacrificed for the sake of getting the winter occupants well stationed before bad weather comes on. I think it is not too much to say that a villa residence or small suburban garden is of all others the most suitable for an attempt at a winter and spring display, because the greatest part of the garden is always coming under the eye, and therefore every part so exposed should have a little decoration beyond what is afforded by ornamental shrubs, trees, &c.

Now let us see what can be done in this way, and I may say that I do not intend to recommend anything expensive, or to enumerate a list of uncommon plants. In the first place all beds, borders, &c., previously occupied by summer bedding plants must be cleared, the ground dug-up to a good depth, say fully 1 foot, and the soil broken up with the spade; no manure need be added. Taking the borders first, and supposing they are defined by a walk, or skirt the extremity of the lawn, and that the usual width of 4 or 5 feet is already ornamented with dwarf green or variegated kinds of shrubs, the spaces between may be filled with patches of the common single Wallflowers in their mixed colours, *Collinsia bicolor*, *Erysimum Peroffkianum*, Californian Poppies, as well as Irises of various sorts, *Helleborus fatidus* all for the back of the border; while more towards the front should come the *Myosotis* or Forget-me-not, *Arabis albidia*, *Iberis sempervirens*, and *Cheiranthus Marshallii*, with alternate patches of scarlet and white Tulips, as well as the various colours of Crocuses and Snowdrops in the front row, or the two may take their places together in that position. The Lily of the Valley must not be left out. The above are all common enough, and if arranged judiciously among the shrubs with some of the annuals mentioned a few weeks ago, the border cannot fail to be as gay as one can wish all through the spring months.

We next come to the beds on the lawn; and if there are several of them, and especially if arranged in a design or group, I would suggest that a good portion of dwarf-growing evergreens should be used to help to clothe many of the beds that would otherwise appear naked. There are plenty of suitable subjects, as *Thuja aurea*, *Juniperus ericoides*, *Yucca filamentosa*, *Mahonia Aquifolium*, *Euonymus*, both silver-variegated and green, small blooming plants of the *Laurustinus*, dwarf plants of the common and Portugal Laurels, and there are the green and variegated Box trees, as well as the gold, silver, variegated, and green Hollies, all of which in their dwarf state make up a capital selection for a small garden, and if so arranged in the beds as to allow of other things being used with them, either as edgings or as a ground covering, or perhaps planted so as to ensure the bloom of the flowers associating in height with the foliage of the evergreens on the mixed principle, there will be much that will please. Some of the beds may be edged with a broad band of mixed Polyanthus or blue Pansies; for instance, the latter with a bed of golden-leaved Holly will look well, or the green *Euonymus*, having a band of the *Arabis albidia*, a white flower, is an attractive bed. If the beds are in a design the evergreens ought to be so arranged that a bed may be occupied with them here and there over the whole place, having beds at proper places to be planted with other plants, such as *Silene pendula*, *Saponaria calabrica*, *Myosotis*, Wallflowers, Polyanthus, Pansies, Daisies of two or three colours, and even the common hedge Primroses and Violets ought to have a place; these may either be arranged in designs according to their height and colours, or, if the beds are small, each one may take a separate sort of plant of dwarf growth, and be edged with Crocuses or Snowdrops, or both.

I think such a garden would not be complete without its complement of Hyacinths, Tulips, Narcissus, Anemones, and other bulbs; and as there would be beds of evergreens, I should arrange so as to have complete beds of each of the above sorts of bulbs, for they would need a little preparation for their successful growth, but they would also be so distinct from the other beds as to render the whole very complete, and so varied in colour and design that they could not fail to be attractive. All the bulbs of whatever kind ought to be planted by the middle or not later than the third week of November to ensure their doing well, but oftentimes people plant later, yet they at times succeed well; however, this is not so certain as if they are planted at the proper time.

Now let me say a word or two upon the treatment of these bulbs. Hyacinths, and in fact all the large bulbs, root deeply and vigorously in the soil; the beds should therefore be deeply dug and drained if the surrounding soil is of a retentive nature, for although the Hyacinth likes moisture when growing fast, yet it must not become stagnant about its roots. Add manure to the soil in a very rotten state, or leaf mould well decomposed, raise the soil 4 or 5 inches above the surrounding level, plant immediately if the soil is dry, or if very wet leave it a day or two to become workable; they should be planted regularly over the bed, especially if arranged according to colours; use a small trowel for planting, and put them in not more than 4 inches deep, taking care that they are all of uniform depth, otherwise they will come up and flower irregularly; leave the bed in a level state. I ought to state that my plan is to put a handful of

sand around each bulb, for if much wet succeeds the planting I think the sand prevents decay. Although the Hyacinth is hardy, I think a little protection is all the better in severe weather. I have at times covered my beds with light half-rotten leaves, sticking some Spruce Fir or Laurel boughs among them. Those bulbs that are planted in the mixed border ought to have the same preparation as to soil, by digging a hole of fair size, and working-up some of it with other of an enriching nature, and protected as advised above. Beds of Tulips, Narcissus, and the others will succeed admirably under the same treatment as for the Hyacinth, and both these and Tulips plant about 8 inches apart all over the bed, and the same from row to row, but those in patches may go a little closer together.

All the plants I have enumerated will bear moving when done flowering in the spring. Do it carefully, and in the case of the evergreens water well before taking up, and also after being planted again. A piece of ground should be kept in reserve for these, shady if possible, and they may be put in moderately thickly, but they must be taken care of during the summer, and the ground kept clean from weeds, in fact everything must be done to assist them to recover their removal at that unseasonable time of the year for such work.—THOMAS RECORD.

MILDNESS OF THE SEASON.—Some dishes of large and ripe Strawberries, the produce of Vicomtesse Héricart de Thury, have been gathered in the garden here within the last few days.—E. RAWSON POWER, Tenby, South Wales.

DOINGS OF THE LAST AND PRESENT WEEKS.

KITCHEN GARDEN.

THE question is sometimes asked, What is the best edging for kitchen garden walks? There is not the least doubt that Box is the best as far as appearance goes; it is also a very cleanly edging. The only fault to be found with it is that it is a harbour for slugs. They sally-out from this snug harbour and devour choice vegetables in the earliest stages of their growth, this more especially when the edging has been neglected for a few years; by trimming it annually the edging is kept within bounds, and very little chance is left for garden depredators. We have seen edgings a foot high and nearly as much through, and then they were an eyesore instead of being ornamental. Box edgings should be cut every year if possible, if not every alternate year. Our plan is to relay a portion each season, and in this way the edgings are kept within bounds, and any gaps are filled up. Edgings are sometimes formed of Strawberry plants, Parsley, or some of the neater-growing herbs, such as Thyme, Marjoram, &c.; but they soon become unsightly, and are troublesome to keep in good order. Stone, artificial or otherwise, bricks, and tiles are also used. A very neat edging is made of stone-coloured pottery and glazed, but to make a permanent job of it a brickwork foundation must be put down. Our choice of an edging is between Box and these stone-coloured glazed tiles. The first named is the neatest, and costs about half as much as the tile-edging at first, but this first cost is more than counterbalanced by the greater attention required to keep the Box in good order afterwards. Now, the tile-edging will last for twenty years or more, and does not require anything all that time. Strawberry plants or Cabbages may smother it for weeks or months; it will be none the worse for it. Many Box-edgings are injured yearly through this cause alone. It is all very well to say, "Do not allow plants to grow over the edgings." No one would if time could be spared to look after them; but when all sorts of trees, vegetables, and weeds are in full growth, it is no easy matter to decide what to do first.

We have laid down a permanent edging of tiles in this way. First get a moderately solid foundation—of course, the more solid it is the better—and having made the bottom level, about 10 inches below the surface of the walk, lay on it a course of bricks end to end, then put on a layer of mortar and another course of bricks, on this bed a brick on edge, and the base of the tiles on the same foundation. On one side of the tile is the brick on edge, and on the other is the gravel, so that when the work is completed the bricks are covered by the soil of the border on one side, and on the other the gravel is filled-up to the same height, leaving only the ornamental edge of the tiles above the surface. The tiles are frost-proof, and the brickwork does not suffer, as it is effectually protected.

The weather has been very favourable for preparing ground for planting. A week ago the ground was dug for Cauliflowers, and to give the plants a good start some nice dry loam was placed on the surface of the ground before the hand-glasses were put down. Most of our time has been taken-up with digging and trenching.

GREENHOUSE AND CONSERVATORY.

Now that flower gardens are flowerless, and even the mixed borders, which are never without flowers of some sort from

November to October, are now singularly destitute, the above structures should be gay with flowering plants. Foremost are the different sections of the *Chrysanthemum*; whether the house is large or small they are equally acceptable. For very small houses the Pompon or Chusan Daisy section of *Chrysanthemums* are better adapted than any other. Where there is plenty of room it is desirable to grow all of them—that is, let all the sections be represented. From time to time during the summer and autumn months instructions as to management have been given in the "Doings." Now the plants will well repay the labour that has been judiciously bestowed upon them. The quaint forms of the Japanese varieties contrast well with the more correct and symmetrically-arranged florets of the "florist" type, or large-flowered varieties. We have been much bothered with two enemies, the one being as bad as the other, not to mention mildew, which repeatedly attacked the plants before they were taken into the houses, and followed them even there. More troublesome still are the earwigs, which hide amongst the florets by day and feed upon them at night. They can be trapped in two ways. As the most convenient, we have placed small pots inverted on the tops of the sticks, and in the bottom of the pots a little moss; into these the insects retire at night, and in the morning they can be destroyed. A few lengths of bean-stalks inserted amongst them are also a good harbour; applying the mouth to one end of the tube, a puff of wind clears the whole of them out into a pot of hot water. Damp is even worse to master than this insect pest. Those blooms that are intended for exhibition must be preserved intact if the stand containing them is to be at the top of the prize list; therefore, as soon as a single floret decays from damp it is removed at once, as a few hours will cause the florets in contact with it to decay. These, again, will spread the mould in all directions, and the flower will be quite spoiled. We found it necessary to have a fire on nearly every day during the last week, with air by day and a little air at night, except during foggy nights; indeed, this is one reason of decay in the neighbourhood of London. The close atmosphere accompanied by dense fogs baffle the utmost ingenuity to keep the proper atmospheric conditions for them.

The earliest *Cinerarias* are showing signs of opening their flowers; these plants are well supplied with water. A little liquid manure twice a-week is beneficial to them, causing the foliage to be of a deeper green, and the flowers of a richer tint. It is a sign of bad management somewhere when the foliage of any plant is not of its natural green. Some varieties of plants have pale green foliage, others have rich deep green, and scores of intermediate shades are to be found, each of the different shades harmonising with the colours of the flowers. So much is this the case, that in many instances (some persons say in all), that the colour of the flower can be determined by the colour of the leaf. The aim of the cultivator, therefore, is to so manage the plants under his care that the natural shade of colour in the leaf may be produced. An over-luxuriance in any plant is not more desirable than a deficiency.

Herbaceous Calceolarias are now at a critical stage. Seedlings are easiest to manage; indeed the named varieties are so seldom cultivated, that those who have them do not require any instructions. Seedlings sometimes damp off from careless watering; the large succulent leaves hug the surface of the mould, and in a damp atmosphere decay speedily begins and rapidly spreads; we have also fumigated the house several times to prevent green fly from attacking them. Pelargoniums and many other plants, if badly infested with fly, will, when the pest is removed, quickly recover. Not so a *Calceolaria*; if aphid is allowed to remain on the plants they seldom flower satisfactorily, and sometimes are totally destroyed. All decaying leaves and flowers are removed, the plants neatly arranged, and carefully attended to with water, which is wiped-up at once, so that brightness and freshness prevails indoors when decay is all around and above us outside.

FLOWER GARDEN.

Here again we are a little behind; the summer occupants of the flower beds are not yet removed, but had other work not been pressing this would have been done, and those beds that are planted with spring-flowering plants would have been filled. Potting *Carnations* and *Picotees*. With us these are more properly greenhouse than flower-garden plants. Were they planted out in beds here they would grow, and some of them would perhaps flower, but very little satisfaction would they give to an ardent florist. Failing open-ground culture, potting was tried, and the result has been very satisfactory. At present a pair of plants are potted into a 60-sized or small 48-pot. Some persons pot their plants up much earlier than this, but the growth becomes stunted when they remain too long in such small pots, and for the same reason the plants should not be put into their flowering pots too early in the spring months. One great disadvantage that we labour under here is the light sandy nature of our soil; it does not seem to have sufficient holding power. All such plants grow freely enough in it, but when the time comes for the flowers to expand, the difference in favour of

plants grown in medium clayey loam over those grown in light sandy soil is something astonishing. When the plants are potted they are removed into a cold frame and plunged in some cocoa-nut fibre refuse; the lights are kept close for a few days. Auriculas have now been removed to the sunniest and driest position in the garden, and to prevent the plants from being injured by damp, all decaying foliage is picked off as soon as it is perceived.—J. DOUGLAS.

PROVINCIAL HORTICULTURAL EXHIBITIONS.

[SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held. Although we cannot report them fully, we shall readily note anything especially excellent, and we wish for information on such specialities to be sent to us.]

NOVEMBER.		NOVEMBER.	
Jersey	11	Royal Hort. Society of Ireland ..	26
Bury St. Edmunds (Chrysanthemums)	17 and 18	DECEMBER.	
Cambridgeshire	19	Manchester	1 and 2
Cheltenham (Chrysanth.)	23 and 24	York	1, 2, and 3

TO CORRESPONDENTS.

*. All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

LIVERPOOL CHRYSANTHEMUM SHOW (W.).—Yes. Send us your private address for not for publication.

POTATOES.—"D. W. W." finds that Sutton's Hundredfold Flake is waxy, and not a good table variety. He wishes to know if other growers of it have found the same defect.

BELGIAN FRUITS (R. W.).—The varieties you mention could be supplied from Ghent by M. Van Geert, St. Annand; N. Gansard, Ledeburg; or Louis Van Houtte.

ALTERNANTHERA PROPAGATION (W. Marfleet).—There are several kinds of Alternanthera, all of which are increased freely from cuttings with two or three joints, inserted in sandy loam with a little leaf soil, and placed in bottom heat if propagation is practised from September to March inclusive, maintaining a rather moist and close atmosphere. The bottom heat should be about 75°. Cuttings with two joints and the growing point are long enough; cut below the joint, remove the leaves from it, insert up to the next joint, surfacing the cutting pots or pans with about half an inch of silver sand. They strike freely in July or August in a cold frame kept close and shaded.

WINTERING CALCCEOLARIAS AND COLEUS (Co. Aurim).—We do not know "Sedum secunda glauca." Is it not Echeveria? which requires to be grown in a house safe from frost in sandy soil, and to have no more water than will keep it fresh. If Sedum glaucum, it is hardy in well-drained soil. The Calceolarias may winter in a border if the weather should be mild, but the best plan is to put in cuttings in a cold frame. Coleuses may be wintered in a Fern case in a warm kitchen window, watering carefully; but if the plants are taken from the open ground it is likely they will die off when placed in the case. The American Pea Nut we do not know. Our correspondent wishes to know "what sort of a plant it is, if it can be successfully cultivated in this country, and if so, how?"

SELAGINELLA LEPIDOPHYLLA CULTURE (Francis Hopkinson).—The above is the name of the plant you sent us, and which you were erroneously told was a Fern. It is the true kind, and rather rare, the plant generally cultivated under that name being erroneously so called. It succeeds in a stove or warm fernery, and requires to be kept very moist, for if dry its fronds are drawn in to the centre, forming a sort of ball, and open when moisture is given. Equal parts of rough peat and yellow loam, with a sixth each of silver sand and broken pots, will grow it well, affording extra efficient drainage. A sprinkling of water overhead should be given two or three times a day. Though moisture is wanted, avoid making the soil a sodden sour mass. Propagation is effected by division in spring if the plant has more crowns than one, and sometimes a frond pegged-down will put out fronds and form a crown. It is also increased by spores, of which your plant is not devoid, covering with a bell-glass the pot or pan, and setting it in a saucer of water.

LARGE DRACENAS AND ERYTHRINA (Almer).—Your Dracenas 10 feet high and handsome well-furnished plants, would be very suitable for large lofty conservatories, and would command a good price from those furnishing such, but we could not say how much, as price greatly depends on the kind and the plants. The Erythrina would not be worth so much, as it is a commoner subject and not in great request. You will occasionally see such things advertised for. Your best plan will be to offer them to some of the leading London or provincial firms, or an advertisement would probably bring you offers. You might dispose of them in exchange for plants you might wish.

PLANETARY INFLUENCE (A Lady Subscriber).—Some centuries ago all persons and all plants were believed to be especially influenced by some one of the planets. Thus some in the list you enclose were "under Mercury," others under Jupiter, Mars, &c. Such superstitions are now extinct, or ought to be.

ARRANGING A CONSERVATORY (A Subscriber).—The Ferns would be best cultivated on rockwork, which we should construct against the wall between the two casements—the 3-feet-8-inch and 10-feet one, and form an archway

over the casement doors, continuing the rockwork against the 3-feet-9-inch wall, taking care to have it irregular in outline. We would not make it project further than 5 or 6 feet at the base in the widest part. In the centre you may have a fountain, which will take up the best part for plants; therefore if we had a fountain at all it would be immediately in front of the casement doors, with low irregular rockwork, with say four plants of Lomaria gibba in the rockwork; but instead of the fountain we should have a bed with a Dicksonia antarctica in the centre and other Ferns at the base. In the centre have a bed with Camellias, and all round the glass part a stage about 3 feet wide for plants, omitting, of course, the door. The stage should be 2 feet 6 inches from the floor, and under it might be a border for climbers, which are very desirable as shade.

ZONAL GERANIUMS.—In answer to "J. Hardie," page 387, the opinion referred to is based upon practice. I did not express myself as clearly as I ought. The sentence should run thus:—Never water a plant when dust-dry or suffering for want of water, but first water with clear water, &c.—W.

CAMELLIA LEAVES BLACKENED (E. A. S.).—The leaf is blackened by water dripping upon the plants, or from syringing and water hanging from the points of the leaves, with exposure to the powerful rays of the sun in summer whilst in the condition named. Shade in summer from bright sun. The leaves curl from want of a good root-action, they being probably destroyed by standing in pans filled, we presume, with water. Repot in spring. We cannot name plants from a leaf; flowers are necessary.

MANETTI STOCKS STRONG (A Constant Subscriber).—The stocks are not too old for budding, but you may in spring graft them, and any failing you may bud in July. Manure obtained in small quantities at a time is best kept to a shed free from the weather, and spread-out thinly, alike for the purpose of drying before it is placed in a heap and to prevent heating. We presume it is short manure. Mix it with an equal quantity of dry soil, put in layers in a square heap about 2 inches thick. It will lose little if stored in this way and kept covered with soil.

IMPORTING PLANTS FROM CEYLON (C. S.).—We do not know what the King of the Woods is, nor what plants it may be desirable to introduce to this country from Ceylon; but the most valuable ones will be Orchids, though bulbs or plants of more than ordinary beauty would be worth looking after. Such matters are best left to those sending or collecting them. The bulbs and Orchids would come best packed in dry or very slightly damped moss in boxes, and any plants in a Wardian case, establishing them before starting. Young plants will be best. Single dark free-flowering Fuchsias are—Mr. George Brunning, War Eagle, Try Me oh! and Killiecrankie.

REPOTTING PALMS (F. E. H.).—In repotting Palms they should have the roots covered with soil just level with the base of the stem, and slightly raised in the centre of the pots or tubs. It is better to have them high rather than low.

MALFORMATION OF CHRYSANTHEMUM BLOOMS (Pompon).—It may be caused by an excess of manure either in a solid or liquid state, which causes grossness and malformation, neglect in watering, attacks of insects, and injury from frost. The effect of sulphate of ammonia is to increase the growth or vigour of the plants, and the indications of its too abundant use will be lank gross growths, soft instead of firm, and loss of roots, which will cause loss of leaves and sometimes of plants.

VIOLETS (G. W. Boothby).—Your new variety, Beauty of Louth, is very good. Size large, form somewhat differing from others, colour a medium dark purple, and fragrance strong.

STRAWBERRY CULTURE (C. H.).—We answer your questions in the order they are put by you. It is necessary to manure the ground well for Strawberries, and dig deeply, placing it at least 9 inches below the surface, and afterwards manure at the surface. In sandy soils a dressing of clay, and especially clayey marl, is a capital addition, mixing thoroughly with the soil. The plants of the smallest kinds, as Black Prince, Keens' Seedling, and others with only moderate foliage, should be planted in rows 2 feet apart; but the strong-growing and spreading kinds, as President, should be 2 feet 6 inches apart. The plants in the first instance may be put out a foot apart for the smaller-foliated sorts, and the large-foliated sorts at 15 inches, and after the first year's fruiting every alternate plant may be taken out, so that they may stand 2 feet and 2 feet 6 inches apart respectively. The runners should be removed, what are wanted for increase being layered either in pots or the ground, and planted as soon as well rooted, the plants being kept free of all other runners. The tops ought not to be cut off at any time, but in September any straggling leaves as well as runners may be removed. You omit a very essential part—manure well between the rows and plants in October. Strawberries should be well watered after they come into flower, and until the fruit is ripe and ripening. Spring water is not so good as soft, but will do, as Strawberries like the roots cool. Rankness of growth is to be overcome by cutting most of the leaves in July, which will lessen their growth, and fresh leaves closer in growth will be produced, and these will have a tendency to mature the crowns. When the plants have many blossoms and weak, thin them, layering runners from them, and water abundantly; after the fruit is gathered knock them up, forming another plantation with the runners from them. Always take runners from fruitful plants. Our soil is light and moory. We manure heavily, follow the above system, keep the plants three years, and renew a part of the plantations every year, besides planting out forced ones, so that we have one-year-old, two, and three-year-old plants. Keens' Seedling and all the earlier do best the first year, planting in July well-rooted runners of the current year, but produce a heavy crop the second and third years, but smaller fruit, and the plants begin to die off; the later sorts are best the second year, though they may have fine fruit the first year; we have had them over 3 ozs. weight, many 2 ozs., and commonly a dozen to a pound. In the third year the plants bear heavily, but the berries are not nearly so fine, the plants go so much to leaves as to be of very little use afterwards. We have omitted to state that they are not allowed to run over the bed into one another, but are kept separate.

STRAWBERRY LEAVES SPOTTED (D. W. W.).—The leaf sent is spotted in consequence of dry weather. It is common to all the kinds of the Keens' Seedling type. It will not interfere with the future well-being of the plants. Currant and Gooseberry trees are native plants, perfectly hardy. They should be manured now, but it is not necessary to cover the roots with any protecting material.

GRAPES DISEASED (J. P.).—It is only the form that "the spot" frequently assumes when attacking Grapes nearly ripe. The roots are probably too dry or too cold.

ERRATUM.—At page 356, thirteenth line from top, on "Fine Old Trees at Moor Park," the word "having" should have been "leaving."

VINE LEAVES MATURING (A. A.).—The leaves are quite healthy, and we think the earlier maturity of the one Vine as compared with the other is solely due to the want of moisture, the Vine with the green leaves having a considerably moister border. If the Grapes are not ripe now upon the Vine with the mature leaves they never will be so. Perhaps they are ripe but not well coloured.

FRUIT TREES FOR GARDEN (J. Maddock).—*Apples*, Dessert—Early Red Margaret, Red Astrachan, Kerry Pippin, King of the Pippins, Cox's Orange Pippin, Court of Wick, Ribston Pippin, Mannington's Pearmain, Reineette du Canada, Adams' Pearmain, Lord Burgly, Cockle Pippin, Melon Apple, and Sturmer Pippin. *Kitchen Apples*—Lord Suffield, Alexander, Cox's Pomona, Rymer, Mère de Monage, Blenheim Orange, Dumblew's Seedling, Warner's King, Bedfordshire Foundling, Afriston, Winter Majestic, Tower of Glamis, and Norfolk Beefing. *Pears*—Citron des Carmes, Jargonelle, Bourne Giffard, Williams's Bon Chrétien, Beurré d'Amanlis, Beurré Superfin, Louise Bonne of Jersey, Beurré Hardy, Jersey Gratioli, Baronne de Mello, Doyenné du Comice, Marie Louise, Beurré Diel, Van Mons Léon le Clerc, Napoleon, Beurré Bachelier, Glou Morceau, Winter Nolis, Beurré de Rance, Ne Plus Meuris, and Bergamotte Esperen. *Catillac* is best for stewing. *Dessert Plums*—Kirke's, Green Gage, Golden Gage (Lawson's), Transparent Gage, Denniston's Superb, and Cox's Golden Drop. *Kitchen Plums*—Diamond, Mitchellson's, Prince Englebert, Prince of Wales, Pond's Seedling, and Victoria, also Damson. *Cherries*—May Duke, Bigarreau Napoleon for dessert, and Kentish and Morello for culinary use. *Apricots*—Kaisha, Hemscher, Royal, and Moorpark. *Peaches*—Early Louise, Early Alfred, Grosse Mignonne, Dymond, Violette Hâtive, Lord Palmerston. *Nectarines*—Lord Napier, Elruge, and Violette Hâtive. *Nuts and Filberts*—Kentish Cob, Dwarf Prolific (Pearson's), Purple, Red, and White Filbert. *Medlar*—Nottingham. *Quince*—Portugal.

SOLANUM CAPSICASTRUM (H. J. James).—This is the species of which you sent us a specimen. It was dried-up, but we think the leaves are changing colour because its period of growth is over. It may be raised from seed sown in February.

APPLYING SALT TO ROSES (L. J. K.).—The mildewed leaves may be syringed with a solution of salt, 4 ozs. to each gallon of water. It will not injure the trees by sinking into the soil over the roots. Prevention of the mildew is better than to have to cure it. Mildew will rarely appear if the roots are thoroughly watered in spring and summer, and a mulching of rich manure kept on the surface of the soil.

NAME OF FERN (H. L. E.).—It is readily distinguishable by its wiry creeping stolons as *Nephrolepis tuberosa*, a very handsome yet common kind. We have it on rockwork covering several square yards, the fronds from a height of 8 feet reaching a long way down towards the floor.

MOVING ROSES FROM A NURSERY (H. L. E.).—Get them any time after the middle of this month and plant, mulching well with littery manure after planting, and watering if the ground be dry.

FUEL FOR HEATING GREENHOUSE (Seyber).—Of the kinds of fuel you name we should prefer the coke, but all boilers do not consume it well, though most will if it be mixed with small coal or slack. We use "nuts," which are not so wasteful as small coal. Coke, if it has to be brought from a distance, is too costly, and if you find the cost will be more than that of house-coal nuts, we advise the latter. The other descriptions of coal are not suitable for ordinary furnaces.

NAMES OF PEARS (Idem).—Hogg's "Fruit Manual" contains what you wish. A new edition is in the press.

TOMATOES FAILING (R. P.).—From the description you give of the failure of Tomatoes it is clear you have the Tomato blight or disease, which is the same as the Potato disease. Probably your soil is too moist and rich. Keep it drier, and do not enrich it. We presume you do not save seed. If you do, throw it away and have a change.

BOTTOM HEAT FOR CUCUMBERS (Idem).—The two 4-inch pipes ought to give you sufficient bottom heat. It is quite a matter of taste whether the pipes are in a chamber or covered with rubble to the depth of about 6 inches, but by the latter you will have a higher bottom heat than were the pipes in a chamber, and more steadily. The four 4-inch pipes along one side and end, or two 4-inch pipes along two sides and one end, ought to give ample top heat.

HEATING GLAZED VERANDAH (Harriet S.).—If you use the flueless stove you mention you will kill some of your plants and injure the others. No fuel can be used that does not give out hurtful fumes. Cannot you use a small gas stove with a tube to convey the fumes into the outside air?

CHARCOAL-HEATED STOVE (A. A. M.).—Whether the stove would heat efficiently depends on the size of the house and the heat which is to be maintained. Coke would be cheaper; but whatever fuel be used, carry off the gaseous products of combustion by a pipe opening outside the house, and take care to insure sufficient moisture in the internal atmosphere.

PIPING TO HEAT A GREENHOUSE (Holly Bank).—As you only propose to heat on one side you will require three 4-inch pipes the length of the house, two flows and one return, or better four pipes, as the ends are in a very bleak and exposed situation. This will give you two flow and two return pipes, each the length of the house.

LIQUID MANURE FOR CHRYSANTHEMUMS (Idem).—When the Camellias commence anvering their buds they may be watered with weak liquid cow manure once a week, also Azaleas, and for the Chrysanthemums and Primulas it may be applied at every alternate watering. The Azaleas ought not to be repotted until they have flowered, and then immediately. A stage of Camellias, Chrysanthemums, Azaleas, and Acacias ought not at this season to be syringed twice a day, nor at all unless it be occasionally to free them of dust.

CURING AMERICAN BLIGHT (Idem).—The following is from the "Gardeners' Year-Book" for 1874, and is an infallible remedy:—"Take a pint of gas tar and mix with it a pint of dry powdered clay. Form the whole into a paste by adding by degrees a gallon of warm soft water." Apply with a brush to the parts infested, and, in fact, the whole tree but the buds, and bare the roots and examine them, as this pest descends and feeds upon them in winter. The composition should be thoroughly brushed into the crevices and angles. Apply warm—not over 120°.

OIL FOR AMERICAN BLIGHT (Miss D.).—Lined oil boiled and applied cold with a brush. It is sold ready boiled by all oil and colourmen.

WALL BORDER (A Fresh Subscriber).—If the border is wider in one part than it is in another, that would not make any difference to the health of the trees. The wide part would not have any advantage over the narrow part, nor the narrow over the wider portion.

NAMES OF FRUITS (J. R. W.).—Beurré d'Amanlis. (H. Hall).—2, Swan's

Egg; 4, White Doyenné; 5, Jersey Gratioli. The numbers of the others were quite obliterated by the acidity of the rotten specimens. (A. A. C.)—1, Belle de Nôl; 2, Glou Morceau; 3, Beurré Diel; 4, Dunmore; 5, Blenheim Pippin; 6, Winter Greening. (W. G.).—1, Autumn Red Calville; 3, 5, Adams' Pearmain; 7, Braddick's Nonpareil; 8, Bess Pool; 12, Warner's King. (B. L.).—1, Brown Beurré; 2, Bergamotte Cadette; 3, Beurré de Rance; 4, Jersey Gratioli; 5, Napoleon; 6, Swan's Egg. (S. G.).—Your Grape appears to be Black Prince. (E. P. N.).—1, Gogar Pippin; 2, Pigeon; 3, Keswick Codlin; 4, Borovitski.

NAMES OF PLANTS (F. E. H.).—The Tunis plant is *Cassia ligustrina*, Privet-leaved Cassia. Your friend must have confused it with the remembrance of some other plant. All the *Cassias* are yellow-flowered. (D. Ferguson).—*Alonsoa incisifolia*, a native of Chili, and very worthy old inhabitant of our gardens. (B.).—Cannot name from leaves only. (W. B. P.).—Your Ferns are *Adiantum macrophyllum* and *Onychium lucidum*. (W. F. R.).—*Asplenium bulbiferum*. (H. P.).—1, *Cyrtanthera Pohliana* (*Justicia carnea*); 2, *Pyrus japonica* (?); 3, *Hypericum hircinum*; 5, Perhaps *Erianthus Ravenne*. We do not name florists' flowers. (T. Neib).—*Oberonia* sp. (J. S. R.).—*Browallia viscosa* and a *Commelina*. (W. F. R.).—It is a *Bouvardia*, but no one can name a plant from such a dried scrap.

POULTRY, BEE, AND PIGEON CHRONICLE.

THE POULTRY-KEEPER.—No. 26.

THE MALAY.

COCK—GENERAL CHARACTERISTICS.

The body smaller than that of the Cochins; form more erect than of any other variety; flesh ordinary, hard, and dense; feathers long and straight, lying close on the body; thighs, shanks, and feet strong and long; shoulders projecting; tail slender and short; comb triple and very thick; skin red; beak and feet yellow.

Weight.—Eleven pounds.

Height.—Twenty-nine inches and a half from the head to under the feet.

Body.—Conical, large in front, and becoming gradually smaller to behind, where it becomes pointed. This shape and the plumage is so slippery and close-fitting on the bird that it is difficult to hold it. The body is much inclined from before to the tail, and the arched back forms an angle of 45°. The thighs and shanks are long, strong, and thick. There is no variety that has so much flesh on the breast and pions. The wings are placed very high and very close to the sides, which make the shoulders very large.

Head.—Strong, short, and conical, flattened on the skull, and wide between the eyes. The red fleshy part which envelopes the whole head is very apparent.

Comb.—Thick in a single lump, yet one of the triple combs covering the base of the beak and extending to the middle of the skull.

Wattles.—Middle-sized.

Ears.—Proportioned to the length to the wattles.

Cheeks.—Large, and bare, and red.

Beak.—Short and conical, very strong, bent down, and clear yellow.

Eye.—Malicious, having the expression of that of an eagle; iris rosy yellow; pupil very dark; eye covered by an eyelid so much developed that when seen in front the eye is not visible. The bird's look is always savage and menacing.

Shank of Leg.—Very long and very strong, of a bright yellow colour.

Toes.—Strong, long, and well clawed, of the same colour as the leg.

The Malay cock is one of those hardly to be classed among the fighters. His gait is restless and threatening. His physiognomy is cruel, impatient, fierce. He carries the head very high; his neck, straight and slender, gives an angular form to the shoulders. His body is very much raised in front and set on long legs, and finished by a slender horizontal tail, composed of short feathers straight and pointed. Somewhat fleshy and large in the body, its plumage is smooth and close.

Plumage.—The feathers are very long, very straight, and without any down, fitting close to the body in layers like the scales of a fish. They seem varnished and are very slippery.

There are Malays of many colours, but the principal types are—The White variety, the most esteemed for the good effect they produce when the cocks and hens are together, the pure white of the feathers, the yellow beak and feet, and the red which surrounds the head are effective.

Of the Black variety, the cock is always marked with red on the shoulders, though the rest of the plumage is black, and the hen is all black.

The Red variety is bright red on the hackle; the lancets and the large wing feathers of a deep mahogany red to the shoulders, on the breast and thighs of a paler red on the sides, on the abdomen, and legs; coverts of the wings and the whole of the tail brilliant green. The hen of this variety is entirely red with rosy tints in patches in all the varieties. The hackle feathers are short, and make more apparent a very long neck. The tail is short and thin.

The Malay hen has the same characteristics as the cock, and has also fighting propensities. She has like him a conical shape, fierce look, and a dark and cruel eye. The hackle feathers are extremely short and close-fitting on the neck, giving to this part a very slender appearance, making still more than in the cock a greater prominence of the shoulders. She weighs from 6 lbs. 10 ozs. to 7½ lbs. Lays a pretty large number of eggs, having a yolk light yellow, very solid. She sits well and brings-up her chickens well.

The English esteem this variety highly, using it for a cross to give weight to birds for table. I think it should be used with great circumspection, especially with Cochins or Brahmans. Malays often are sold in France under the name of "the Brazil," "the cock of Gros-Marne," sent to the Society of Acclimatisation under the name of "the Reunion cock," and an amateur member of this Society wished, under pretext of a difference hardly discernible, to call "the Malacca."

In conclusion the variety is useless, and its fierce habit makes it impossible to associate it with our indigenous fowls. The detestable fowls known under the fallacious names of "Ganges," "Bengal," "Russian," and "American," are degenerated or mixed descendants of the real Malay.

OXFORD POULTRY SHOW.

THE third annual Exhibition was held in the Town Hall and Corn Exchange on October 25th and 26th, and we have great pleasure in congratulating the Committee on the substantial progress they have made in their entries. Mere numbers are not always to be accepted as a sign of success, but here a marked improvement has taken place in the general character of the birds; and although we have no doubt that the most experienced exhibitors have reserved their best birds for the great Show that is soon to follow, still great interest was taken, and the classes anxiously examined for fear a chance pen might snatch the blue ribbon from some of the expectant winners. The entries numbered 1412, and the arrangements were satisfactory, with the exception of the sale office. This was announced to open at 2 P.M., but did not open until fifteen minutes past. It appears that several people wanted the same bird, and the Committee were in doubt if they should let the first comer have it, or put it up by auction to the highest bidder; they adopted the first course, which we think was the right one, as it would have been hard upon the intending purchaser, who had patiently waited at the door for three hours to be first on the list, to find himself only in the same position as the last comer. The most satisfactory course, no doubt, is to sell the birds to the highest bidder, but then it should be so stated in the rules.

Dorkings had four classes. The Coloured chickens disappointed us. The first-prize cock was a large one, but very much up in the back, and it was a mistake placing him in the prize list. The second-prize pen was fine, and certainly the best in the class; the third also good, but we liked another pen shown by the same winner (Burnell) better. The cockerel will make a fine bird when more developed. Pen 11, belonging to Mr. Lingwood, was superior to some of the noticed birds. Possibly the Judge considered them too old for the chicken class; if so, they should have been marked "disqualified," this would have explained the cause of their omission. The Silver-Greys pleased us. The first-prize cockerel was a splendid bird, well grown, with no sign of the crooked breast which is so prevalent with this variety. The pullet was beautiful in colour. We think this pen should have had the cup. The Blues were moderately good; we should very much like to see some good breeders take them in hand, it would pay them well, as we know of no other variety that might be so quickly improved and brought to the front. The White Dorkings were generally creamy; we thought them a poor class.

Spanish do not generally muster so strongly so early in the year—there were sixteen entries. The first-prize pullet was a nice bird, with rather a good lobe; the cockerel had a peculiar cut in the comb, which might have arisen from being wired up, or some accidental cause; we also thought him wry-tailed. We think this must have escaped notice, otherwise he would not have been in the prize list. The running was very close between the second and third pens, and we think we should have placed the third (Beldon) in the front. Pen 61, highly commended (Rodhard), contained a pretty cockerel; pen 63 (Brown) a nice cockerel, but out of condition, and matched with an inferior pullet.

Cochins had four classes, all good. In the Buff the competition was very close between Mr. Percival and Lady Gwyder. The Judges gave the preference to the first-mentioned; but we think we should have preferred the latter. The first-prize birds were evenly matched in colour, but the cock was narrow in the back, and much lighter than the second. The hen was also slightly striped in the hackle. The second-prize cockerel was a grand bird, but tinged a little in the wing with white. The pullet was sound in colour, but deficient of leg-feathering, or rather toe-feathering, the middle toe was almost bare. The

Partridge did not please us so much as the Buffs; in the cockerels we noticed the leg-feathering was not so good as usual, and the pullets, with the exception of one or two pens, not so well pencilled. The first-prize cock was a fine one; the second should have been left out for the same reason that we have suggested with regard to the first-prize Dorking and Spanish. The third we liked; the pullet was good, but not equal to one we remember Mr. Tudman to have shown at this season of the year at Croydon about two years back. Pen 95 (Coleridge) contained a nicely pencilled pullet. Blacks have improved, and mustered sixteen entries. Whites were a good class: the first-prize pen contained a charming pair; the second-prize cock had a very white lobe. Pen 130 were small; in other respects we liked them better than the second.

Brahmas.—The Dark class contained thirty-four entries, and the competition was very close. In the first-prize pen we found a beautiful pullet, but rather a coarse cockerel; second a fine cockerel, well shaped, and good in colour. Miss Douglas Pennant showed four pens, which were greatly admired. The cockerel in pen 152 will when more developed be very difficult to beat; the pullet was well pencilled, but rather small. Mr. Leno showed a splendid pullet, well shaped, almost perfect in pencilling, but rather deficient in leg feathers. The Light class exceeded the Dark in numbers. They had forty-nine entries. The best cockerel was in the first pen, but as a pair we preferred Mr. Lingwood's, pen 208, which were awarded the third prizes.

Game.—The winning Black Red cockerel was a splendid chicken, and must have given the Judges no trouble in making their selection. Pen 221, third prize, and also the local prize, deserved his position, but he was badly dubbed. In Black Red pullets we thought pen 268 (Pope) deserved some notice. The other Game classes were well judged, and pleased us as indicating a most satisfactory season.

Hamburghs were beautiful. The Silver cockerel in pen 410 was a magnificent bird, exquisitely marked in the tail; his partner was also a beauty.

Polish.—Blacks only five entries, out of which two (Unsworth) were marked as arriving "too late for competition." In the Any variety class Mr. Adkins again won all the prizes; his two first pens appeared unapproachable.

Of *French* fowls Houdans were a splendid lot. First-prize cockerel very fine, but we doubt if we shall often see him in the prize list, as his comb will be considered a strong objection by some judges. The Crèves were, if possible, superior to the Houdans, and we think Mr. Dring was fairly beaten this time. Malays a grand lot, and seventeen entries. In this class Mr. Hinton showed the best-looking pen, but in this case the crooked appearance of the back did not escape the Judge; they were unnoticed.

In the *Americans*, Brown Leghorns, Whites Leghorns, and a pen of Plymouth Rocks competed. Silkies followed, of which there were some admirable specimens. For Any other variety the first prize went to a good pen of Minorcas.

Bantams.—In Game Mr. Auns achieved another great victory, but not we think with his Brighton bird; the cockerel we considered here not so good in the head, but in other respects superior. The Brown Reds were moderate. In the Any variety class Mr. Brownlie again won with his beautiful Piles; the cockerel we think the best we have seen for a long time. Blacks were a strong class and well judged. In the Sebrights Mr. Leno has at length had to succumb, a very magnificent pen of Golds belonging to Mr. Braund winning; they were only entered at ten guineas, a bargain which we have no doubt was quickly caught at.

Ducks.—Ayreshury a small class, Mr. Fowler winning easily. Rouens very large, and containing four or five first-class pens. In Blacks Mr. Sausbury cleared off all the prizes.

Very large Selling classes completed the poultry, and here we found the best Spanish cockerel in the Show.

The *PIGEONS* were well represented; the entries reached four hundred. It was gratifying to hear the very great satisfaction experienced by nearly all the old fanciers at the judging.

Carriers.—Among the old cocks we very much liked Pen 1021, and thought he deserved a position in the Show. Mr. Yardley won with a grand bird, having all the essentials of a Carrier. The young class contained a splendid lot, nearly all the birds being noticed; next the winners we liked the pens shown by Lt.-Col. Hassard and Mr. Hammock. In *Pouters*, Whites carried both first prizes over the Pieds. *Barbs*.—We preferred Mr. Maynard's pen to the winners. *Almonds* were a beautiful class. *Dragoons*.—Red and Yellow did not come out so strongly in number as we anticipated, but the quality was first-rate. The Any other colour was a large class, and must have given the Judges a little trouble. *Owls*.—In Foreign Mr. Allen won with a superb pair, but a little out of condition. *Turbits*, *Fantails*, and *Jacobins* were a fine lot, and the awards satisfactory.

DORKINGS (Coloured).—1 and Cap. S. Newick, Hinton St. George. 2, J. White, Warlaby, Northallerton. 3, T. C. Burnell, Mickledever. 4, L. G. W. Stratford, West Malling. *Ac. J.* Taylor.

DORKINGS (Blue).—1, R. Gamon, Dorking. 2, H. Allen, Wood Green. 3, J. W. Putney, Dorking. Local Prize, J. T. Castell, Oxford.

DORKINGS (Silver-Grey).—1, O. E. Cresswell, Early Wood, Bagshot. 2, W. Roe, jun., Newark. 3, J. Robinson. 4, L. Wren, Lowestoft. Local Prize, S. Salter. *hc*, W. W. Knithledge, Kendal; O. E. Cresswell.

DORKINGS (Any other variety).—1, Mrs. M. A. Hayne, Fordington. 2, L. G. W. Stratford. 3, O. E. Cresswell. *hc*, J. Robinson, Garstang; Miss E. Williams, Henllys, Berwick; Mrs. M. A. Hayne.

SPANISH.—1, J. Pitt, Wolsingham. 2, J. Palmer, Acton. 3, H. Beldon, Bingley. Local Prize, H. Jones. *hc*, J. R. Kodard, Warrington. *c*, Mrs. T. Dean, Brierley. 4, G. H. Clifton, Colburn, Bristol.

COCHINS (Cinnamon and Buff).—1, K. P. Percival, Northenden, Manchester. 2, Lady Gwydyr, Ipswich. 3, Henry Lingwood, Rarking, Needham Market. *hc*, W. A. Burnell, Southwell, Notts; J. Swinson, Chipping Campden; T. Scar, Aylesbury; G. J. Nelson, Southwark Street, S. E. *c*, W. A. Burnell; W. P. Ryland; H. Tomlinson, Gravely Hill, Birmingham.

COCHINS (Particolored).—1 and 2, E. F. Indman, Whitechurch, Salep. 2, G. Lamb. *hc*, R. P. Percival; J. H. Jones, Handforth; Hon. Mrs. Scales; T. M. Derry, Gellney. *c*, Mrs. H. Story, Lockington Vicarage, Derby; Hon. Mrs. Sugden, Wells (2); Mrs. E. Pryor, Welwyn.

COCHINS (Black).—1, E. Kendrick, jun., Lichfield. 2, Lady Gwydyr. 3, G. C. Athole, New York. *hc*, H. Beldon; T. Asplen, Church (2); Mrs. Taaffe, Tulse. *c*, Mrs. Taaffe.

COCHINS (Any other variety).—1 and 2, R. S. Woodgate, Pembury, Tunbridge Wells. 3, T. Atterton, Leighton Buzzard. Local Prize, J. Cradock. *hc*, W. A. Burnell; J. K. Fowler; J. Turner; J. Cradock. *c*, Miss H. Williams.

BRAMHMS (Dark).—1, Hon. Mrs. B. Hamilton, Ridgmont, Woburn. 2 and 4, T. F. Ansell, Cowley Mount, St. Helens. 3, Horace Lingwood, Creeting, Needham Market. Local Prize, J. Gee, Oxford. *hc*, T. F. Ansell; Hon. Miss D. Pennant, Penrhyn Castle, Bangor; M. Leno, Markate Street; J. Watts; J. Harvey, jun., Thannington, Canterbury. *c*, Hon. Miss D. Pennant; W. R. Garner, Dyke; H. Hadroff, Calne.

BRAMHMS (Light).—1 and 2, C. H. Wakefield, Malvern Wells. 3, Horace Lingwood. 4, P. B. Bates, Palace, Diss. Local Prize, T. Smith, Charlbury, Oxon. *hc*, R. P. Percival; G. & W. Smith, Bath; Mrs. Peet, Sharnbrook; T. A. Dean, Marden, Hereford; M. Leno; G. W. Vetter, Streatham Grove, Norfolk; Mrs. W. E. Drummond, Bath. *c*, K. C. Horsfall, Grassendale Priory; H. M. Maynard, Holmwood.

GAME (Black-breasted Red).—*Cockerel*.—1, S. Matthew, Stowmarket. 2, T. P. Lyon, Liverpool. 3 and Local Prize, Miss Osborn, Yarnout. *hc*, P. A. Lock, Walsby. 4, S. G. H. Lamb, Bicester. 2, Walker, Gomersall; D. Harley, Edinburg. 3, S. F. H. Pullet. 1, Major J. Newgate, Tong Long, Bristol.

2, J. Mason, Worcester. 3, J. Forsyth, Wolverhampton. Local Prize, R. J. Pratt, Eastone. *hc*, Hon. and Rev. F. Dutton, Bury Vicarage; A. C. Swain, Beckingham; R. J. Pratt. *c*, W. H. Stagg, Netheravon.

GAME (Brown-breasted and other Reds).—*Cockerel*.—1, R. Ashley. 2, J. Chesters. 3, T. Chesters, Nantwich. Local Prize, Miss Osborn. *hc*, S. Matthew. 4, H. E. Martin, Southport, Fakenham. *Pullet*.—1, S. Matthew. 2, J. Cook, Worcester. 3, J. Carlisle, Enbury. Local Prize, Miss Osborn. *hc*, J. Chesters; Miss Osborn; H. Beldon; J. F. Walton, Raxtenstall; T. Sergeant, Nantwich; H. E. Martin; W. Foster, Deal; R. Payne, Banbury.

GAME (Any other variety).—*Cockerel*.—1, E. Aykroyd, Eccleshill. 2, J. Mason. 3, J. F. Walton. Local Prize, W. Pratt. *hc*, J. Goodwin, Liverpool. *c*, B. Bell, Burton-on-Trent. *Pullet*.—1, J. Goodwin. 2, E. Wiswood, Worcester. 3, J. Mason. *hc*, Hon. and Rev. F. Dutton; E. Aykroyd.

HAMBOURG (Gold pencilled).—1, G. & J. Duckworth. 2 and 3, H. Beldon. Local Prize, J. T. Castiel. *hc*, J. Walker, Ripley, York; T. Wythe, jun., Melton Mowbray; W. Speakman, Nantwich; T. & W. Fawcett, Baldon. *c*, Ashton & Booth.

HAMBOURG (Silver-pencilled).—1, Duke of Sutherland, Trentham. 2, H. Beldon. 3, J. Webster. *hc*, H. Beldon; J. Robinson; J. Long.

HAMBOURG (Gold-spangled).—1, J. Long. 2, G. & J. Duckworth, Church. 3, Duke of Sutherland. Local Prize, J. Calcutt, Witney. *hc*, H. Beldon; T. E. Jones, Wolverhampton.

HAMBOURG (Silver-spangled).—1, Ashton & Booth, M. 4, tram. 2, H. Beldon. 3, J. Messer. Local Prize, J. Gee. *hc*, H. Beldon; Duke of Sutherland; J. Robinson; J. Long, Bromley Common, Kent.

HAMBOURG (Black).—1, Rev. W. Serjantson, Acton, Barnell, Shrewsbury. 2, H. Beldon. 3, Stott & Booth, Local Prize, E. Brooks, Oxford. *hc*, H. Hovle, Newchurch. *hc*, H. Beldon; Rev. W. Serjantson; C. Leake, Bromfield. *c*, C. Stogwell, Ryddlesden Hall, Keighly.

POLANDS (Black with White Crests).—1, A. Darby, Little Ness, Shrewsbury. 2, T. Dean.

POLANDS (Any other variety).—1, 2, and 3, G. Adkins, Lightwoods, Birmingham. *hc*, T. Dean.

HODDANS.—1, Rev. C. Handley, Baltonsborough. 2 and 3, R. B. Wood, Uttoxeter. Extra 3, Miss C. G. Nevill, Buteigh Vicarage, Glasbury. Local Prize, Rev. G. Day. *hc*, C. Hill, Alton; W. Dine, Faversham; G. W. Hibbert, Godley, Hyde; W. O. Quibell, Newark; J. K. Fowler; H. Grant, Bradford; W. A. Peel, Watford; C. Morris, Upton Lawn, Chester. *c*, W. Culick, jun., Littleport; J. D. Harrison, Camforth; R. A. Boissier, Peshawar; R. B. Wood (2); W. H. Coppleson, Lostwithby; M. H. Sturt, Fussy; G. de Fay, St. Huier, Jersey.

FRENCH (Any other variety).—1 and 2, R. B. Wood. 3, W. Driag. *hc*, Mrs. A. Tindal, Aylesbury; J. K. Fowler; G. de Fay; Rev. C. C. Ewbank, Dallington Vicarage. *c*, Rev. T. C. Beasley.

MAJAYS.—1, G. Burnell, Rug ley. 2, S. Elliott, jun., Liskeard. 3, Capt. C. Terry, Reading. *hc*, W. H. Huxtable, Landkey, Barnstaple; F. Sabin, Birmingham (2); E. Bradford, Whissonsett.

AMERICAN FOWLS.—1, R. K. Fowler. 2, J. Long. 3, W. B. Wignall, Birkenhead. Local Prize, R. Harvey. *hc*, W. B. Wignall; A. Kitchen, Westerham; R. B. Day, Rickmansworth.

SILKIES (White).—1, R. S. S. Woodgate. 2, S. P. Broad, Reigate. 3, A. Darby. Local Prize, Mrs. L. Harvey. *hc*, J. Watts; R. S. S. Woodgate; Mrs. J. F. Holmes.

ANY OTHER VARIETY.—1, J. Crooke, Wallington (Minors). 2, H. Feast, Swansea. 3, Miss C. G. Nevill, Buteigh Vicarage, Glasbury. *hc*, T. B. Wood, Salisbury (Black Minors); A. E. Cresswell (White Guinea Fowl). *c*, J. Crooke (Minors); J. Watts (Friszled).

GAME BANTAMS (Black Reds).—1, W. F. Anns, Glastham. 2, W. F. Addie, Preston. 3, Miss E. H. Entwistle, Bradford. Local Prize, S. Salter, Egrove. *hc*, R. Brownlie, Kirkcaldy; A. Ashley, Redhill, Worcester; Mrs. G. Hall, Kendal; G. Hall, Kendal; T. Bradbury, Buckingham. *c*, J. Nelson, Hexham.

GAME BANTAMS (Brown and other Reds).—1, S. Beighton, Farnsfield. 2, T. Barker. 3, Miss E. H. Entwistle. *hc*, Miss E. H. Entwistle; T. Barker.

BANTAMS (Any other variety).—1, R. Brownlie. 2, J. Nelson, Hill End, Burnley. 3, S. Beighton. *hc*, J. Nelson; Miss E. H. Entwistle; Bellingham and Gill, Burnley; J. Eaton, Grantham; P. Unsworth, Loxton, Newton-le-Willows. *c*, E. Walt, Horncliffe, Raxtenstall; A. Smith, Halifax.

BANTAMS (Black, Clean-legged).—1, W. H. Robinson, Keighly. 2, J. Earnshaw, Rotherham. 3, E. Cambridge, Bristol. *hc*, J. Pearson, Lichard; J. M. Gloucester. *c*, H. Beldon (2); T. Dyson, Halifax; W. H. Young, Driffield.

BANTAMS (Sebright).—1, F. Brand, Bideford. 2, M. Leno. *hc*, M. Leno; J. Wholy, Kingston. *c*, C. H. Poole, Bridgwater.

BANTAMS (Any other variety).—1, Duke of Sutherland. 2, H. B. Smith, Bronzton, Preston. 3, Rev. E. T. Farie, Gazeley Vicarage, Newmarket. *hc*, J. Greig, Durrington Manor House; R. S. S. Woodgate. *c*, H. Feast.

DUCKS (Aylesbury).—1, 2, and 3, J. K. Fowler. Local Prize, H. T. Sotham, Watlington. *hc*, W. Walker, Rochdale; T. Kingsley; T. Scar, Aylesbury; J. Hedges, Aylesbury.

DUCKS (Rouen).—1, F. Parlett. 2, J. Nelson, Hexham. 3, P. Unsworth, Local Prize, Duchess of Marlborough, Blenheim. *hc*, Hon. Mrs. Vernon,

Kettering; Duke of Sutherland; J. T. Billinge, Penrith, Wigan; H. Dowsett, Pleshev. *c*, J. Watts; G. E. Martin, Bath; J. H. Hoyt.

DUCKS (Black East Indian).—1, 2, and 3, G. S. Sainsbury, Devizes. *hc*, G. S. Sainsbury (2); J. W. Kelleway, Merston, Isle of Wight. *c*, J. W. Kelleway; Mrs. M. A. Hayne.

DUCKS (Call).—1, W. H. Young, Driffield. 2, R. Richardson. 3, Duke of Sutherland. *hc*, P. Clatton, Rickmansworth.

DUCKS (Any other variety).—1, R. Wilkinson, Guildford. 2, R. R. Fowler. 3, H. B. Smith. Local Prize, W. R. Pratt, Oxford. *hc*, H. B. Smith (2); M. Leno (3); H. Yardley, Birmingham. *c*, Miss Mill.

TURNERS.—1, Rev. N. J. Ridley, Hollington, Newbury. 2, W. Wykes. 3, J. Walker. Local Prize, H. S. Sotham. *hc*, H. J. Gunnell; M. Kew, Market Overton; Mrs. A. E. Mayhew, Chelmsford. *c*, C. Kendrick, jun.

GESEES.—1 and 2, J. K. Fowler. 3 and Local Prize, Duchess of Marlborough. *hc*, E. Snell.

SELLING CLASS (Brahmas, Dorkings, and Cochins).—*Cocks*.—1, F. White. 2, J. Walker. 3, Col. C. A. Cobbe, Adderbury West. 4, Countess of Dartmouth, Alington. *hc*, Hon. Mrs. B. Hamilton. *hc*, R. P. Percival; T. Smith; W. B. Richardson, Maux Abbey, Beverley; W. A. Burnell (2); W. R. Garner; A. Palmer; R. Harvey; T. A. Dean; C. Sidwick; J. Watts; T. J. Saltmarsh; Chelmsford; H. Tomlinson; Mrs. H. Shutt, Worcester; Mrs. Somerville; J. Hedges; H. Yardley. *c*, W. Jervis (2); M. Leno; Mrs. H. Foulkes, Llandysil.

Hens.—1, W. B. Howard. 2, J. Cowsett.

SELLING CLASS (Brahmas, Dorkings, and Cochins).—*Hens*.—1, T. Kingsley, Tring. 2, Countess of Dartmouth. 3, J. Watts. 4, W. A. Burnell. *hc*, R. P. Percival; G. & W. Smith; H. J. Gunnell, Milton; Mrs. A. C. Smith; C. Kendrick, jun., Lichfield; J. Gorin, Steyning; J. N. Whitehead, Bridgewater; W. A. Peel, Watford; F. Rayner, Shanklin; Countess of Dartmouth (2); J. Hedges; E. Shaw, Plas Wilnot, Oswestry; S. Salter; H. Yardley; T. P. Caiver, Langthorpe, Boroughbridge; F. Bennett (2). *c*, J. Watts; H. Dowsett.

SELLING CLASS (Any other variety).—*Cocks*.—1, W. B. Howard. 2, Rev. N. J. Ridley (La Fleche). 3, J. D. Harrison, Grange-over-Sands (Houdans). 4, W. H. Start. *hc*, J. T. Parker, Northampton (Spanish); E. Smith, Maldon (Houdans); Miss Mill, Rickmansworth (White Leghorns); H. Brown, Putney Heath; J. Fearney, Nextstone-Willows; F. P. Morrell, Oxford; Countess of Dartmouth; A. Bentley, Rickmansworth; C. G. Cave, Spalding.

SELLING CLASS (Any other variety).—*Hens*.—1, E. Pritchard, Wolverhampton. 2, C. Bloodworth. 3, J. Chiman (Houdans). 4, J. T. Parker (Spanish). *hc*, J. F. Pauling, Thrapston; J. Walker. *c*, Rev. T. C. Beasley.

SELLING CLASS (Bantams).—1, Mrs. G. Hall. 2, M. Leno. 3, G. Hall. *hc*, S. and J. J. Stephens, Ebley; R. R. Fowler, Aylesbury; Rev. F. Pearle; T. Barker; T. W. Anns; E. Walton; W. Shenton; M. Leno.

SELLING CLASS (Ducks).—1, J. Gee. 2, J. Hedges. 3, Haslam & Seotson, Hindley Common. 4, T. Kingsley. *hc*, Duke of Sutherland (Rouen); J. K. Fowler. *hc*, G. S. Sainsbury (Black East Indian) (2); Mrs. A. Tindal; J. Watts; J. Hunt; E. Shaw; S. Salter; J. H. Hoyt; H. Dowsett. *c*, C. Snell.

PIGEONS.

CARRIERS (Black or Dun).—*Cock*.—1 and 3, R. Fulton. 2, H. Yardley. Local Prize, S. Salter. *hc*, T. D. Baddeley, Hereford; W. Nimson, St. Ives. *hc*, Col. F. Hassard, Sheerness. *c*, J. Baker. *Hens*.—1, H. Yardley. 2 and *hc*, W. G. Hamcock, Hford. 3, R. Fulton, New Cross. *c*, R. Cant; H. M. Maynard, Holmwood, Isle of Wight (2).

CARRIERS (Any other colour).—*Cock*.—1, E. C. Stretch, Ormskirk. 2, Col. F. Hassard. 3, S. Salter. *hc*, W. G. Hamcock. *Hens*.—1 and 3, W. G. Hamcock. 2, E. C. Stretch. *hc*, S. Salter. *c*, J. C. Ord, Farnley.

CARRIERS (Any other colour).—*Young Cock or Hen*.—1, A. Billevald. 2, W. Nimson. 3, Col. F. Hassard. Extra 3, R. Cant, Brompton Road, S.W. Local Prize, T. Wyatt, Oxford. *hc*, W. G. Hamcock; W. Quiskall, Shanklin; Col. F. Hassard. *hc*, T. Wyatt; E. C. Stretch; W. G. Hamcock; W. Massey, Spalding; R. Cant; H. M. Maynard; J. C. Ord (2); Col. F. Hassard. *c*, W. Massey; J. Calcutt; S. Salter.

POUTERS.—*Cock*.—1, Rev. W. C. Bullen. 2 and 3, R. Fulton. Local Prize, W. R. Pratt. *hc*, R. Pratt, Hampton-on-Urden; W. Nottage, Northampton. *hc*, H. Pratt; N. Hill, Ealing; Mrs. Ladd, Calne. *c*, J. Baker; Rev. W. C. Bullen. *Hens*.—1, Mrs. Ladd. 2, Rev. W. C. Bullen. 3, N. Hill. *hc*, R. Fulton; J. Baker, Kew Bridge. *c*, K. Fulton.

BARBS.—1 and 3, R. Fulton. 2, H. M. Maynard. Local Prize, W. R. Pratt. *hc*, H. Yardley. *hc*, F. Smith; J. Baker. *c*, J. Baker. *Young*.—1, R. Fulton. 2, H. M. Maynard. 3, G. H. Gregory, Taunton. *hc*, F. Smith, Selly Oak, Birmingham.

TURKISHS (Almond).—1, R. Fulton. 2, H. Yardley. 3, J. Baker. Local Prize, W. R. Pratt. *hc*, J. Ford, Monkwell Street, London (2); R. Fulton.

TURKISHS (Short-faced).—1 and 3, J. Baker. 2, J. Ford. *hc*, R. Fulton.

TURKISHS (Long-faced).—1, W. B. Mapplebeck, jun., Birmingham. 2, J. Watts. 3, W. Todd. *hc*, J. Ford.

DRAGONS (Red or Yellow).—1 and 2, E. Graham, Birkenhead. 3 and *hc*, L. Whitehead, Drury Lane, W. C. *hc*, L. Fulton; G. H. Gregory. *c*, H. Bignell, Ishington. 3, S. Salter. *c*, R. Woods, Mansfield.

DRAGONS (Any other colour).—1 and 2, W. D. Richardson, Wells. 3, H. Yardley. Local Prize, C. Herrieff, Banbury. *hc*, F. Graham; W. Smith; W. H. Mitchell, Moseley, Birmingham; J. Philpott (2); C. Herrieff; W. Gamon; R. Fulton. *c*, W. Smith; Ward & Klode; W. Gamon; J. Watts; J. James, Bath.

ANTWEARS.—1, W. Gamon. 2, J. Wright. 3, W. Slater, Gravely Hill, Birmingham. Local Prize, F. Coumbes, Chipping Norton. *hc*, C. Herrieff; B. Hudson, Driffield. *c*, C. Herrieff; J. Wragot; K. Brierley, Bury, Lancashire; H. Yardley.

ANTWEARS (Homing).—1, Powell & Crane. 2, G. A. Evans, Oxford. 3, J. J. Sparrow, Grosvenor News, London. *hc*, C. Herrieff; J. J. Sparrow; J. W. Barker; C. Benwood; W. R. Pratt. *c*, Capt. G. Edwards; G. A. Evans; C. Herrieff; W. Tomlinson; P. Brierley; A. Bentley.

RENTS.—1, T. D. Green, Saffron Walden. 2 and 3, S. Salter.

OWLS (English).—1, H. Verdon, Waverley. 2, R. Fulton. 3 and Local Prize, E. F. Enley. *hc*, J. W. Edge, Birmingham. *hc*, E. Lee; K. Fulton; J. Watts. *c*, D. Herrieff; W. Tomlinson, Oxford; L. Allen.

OWLS (Foreign).—1 and 3, L. Allen. 2, J. J. Sparrow. *hc*, T. Chambers; F. Brand; S. A. Wyllie, East Moulsey; J. Baker.

NEWS.—1, H. Yardley. 2, Rev. A. G. Brooke, Shrawardine. 3, J. B. Bowdon, Blackburn.

TREBITS (Red or Yellow).—1, R. Fulton. 2, J. Baker. 3 and *hc*, O. E. Cresswell. Local Prize, S. Salter. *hc*, H. Yardley; T. Foster, Dunblame Gate, Bingley. *c*, T. Foster; R. Woods, Mansfield.

TREBITS (Any other colour).—1 and 2, Local Prize, S. Salter. 3, J. Baker. 3, G. H. Gregory. *hc*, O. E. Cresswell. *hc*, S. Salter (2). *c*, J. E. Bowdon; J. E. Smyth; J. Watts; G. H. Gregory.

FANTAILS.—1 and *hc*, Rev. W. Serjantson. 2, H. M. Maynard. 3, J. F. Lovelidge. *hc*, R. Fulton; J. Walker. *c*, J. F. Lovelidge; Miss Dickenson; S. Wyllie.

JACOUBINS.—1, R. Fulton. 2, J. Baker. 3, L. Allen. Local Prize, Miss M. E. King. *hc*, J. Banks; R. Fulton; L. Allen, Southwark.

TURKISHS.—1 and 2, R. Fulton. 3, J. Baker.

MAGPIES.—1, 2, and Local Prize, C. Hitchcock, Oxford. 2, J. E. Bowden. *hc*, C. Hitchcock; J. Watts; H. Yardley. *c*, J. Baker.

ANY OTHER VARIETY.—1, R. Wilkinson (Archangels). 2 and 3, S. Wyllie (Grillbacks and Scanderoon). *hc*, L. Allen (Black Beards); H. Yardley; R. Woods. *c*, C. Clifford (Helms).

LOCAL CLASS (Homing Antweaps).—1, J. Cradock. 2, E. Valters. 3, A. M. Turner. *hc*, G. A. Evans; A. M. Turner; W. Tomlinson. *c*, Powell & Crane; W. R. Pratt.

SELLING CLASS.—1, J. J. Sparrow. 2, S. Salter. 3, J. Kendrick. *hc*, J. Ford;

H. Yardley. c, C. Herrieff (2); Miss J. Milward; W. H. A. Müller; S. Salter; J. E. Leward.

JUDGES.—Poultry: Mr. E. Hewitt, Mr. W. B. Tegetmeier, and Mr. R. Teebay. **Pigeons:** Mr. F. C. Esquilant and Mr. P. H. Jones.

DORKINGS AT THE OXFORD SHOW.

As I know it is not in the power of all exhibitors to attend shows I send you the subjoined remarks on the Dorkings at Oxford Show, thinking they may be interesting to some of your readers. Looking at the Dorkings as a whole, I think the most marked progress is to be found in the Silver-Grey class. The Coloured class was certainly not equal to last year.

The cup pen of Coloured birds contained a very nice pullet; the cockerel was also a stylish bird with good feet, but on close examination I thought his right hip bone projected a little. Mr. White's second-prize birds I liked immensely, but they were within an ace of arriving too late. There were several very good single birds, but this pen was good all round; the cockerel large, dark, and good in comb and feet, while the pullet was quite his equal. Third was the cup cockerel at Bath, but his pullet rather small and brown on the wings. The fourth cockerel was a smart dark bird with a good comb, but the pullet was not large and very light in colour, being almost like a Silver-Grey. I must plead guilty to admiring the dark colour for Coloured hens, in order that there may be a marked distinction between them and the Silvers. Mr. Walker's pen was too late, but his cockerel was smallish. Pen 9 (Beachey) would have been good, except for the pullet's toes, which no doubt threw it out; and the same may be said of pen 15 (Gee), the pullet having a broken leg badly set, the cockerel also good. Mrs. Somerville showed a very large pullet indeed, but already showing a bumble between the toes.

The Silver-Greys were, I think, the best class of this variety I have ever seen, and I may say the same of Mr. Cresswell's cup pen, which also took the cup at Birmingham. His cockerel is a thorough Dorking, broad, square, and short on the leg; while his jet-black breast and tail, and pure white hackle and saddle, make him a perfect Silver-Grey. The second were also a neat pen and perfect, but not possessing the size of the first. Third was a large pen, especially the pullet, but the cockerel grizzled on the thighs; fourth a pretty pair, but the pullet smallish, and the cockerel a little too much striped in hackle for a Silver. I also admired pen 19 (Cato), but they were not up to the size. Several pens had dark feet and white earlobes, doubtless great drawbacks in good competition. The pullet in pen 26 was fearfully rusty on the wing.

Cuckoo Dorkings are a variety I particularly admire, and they are well known to be hardy and good layers: the latter I can personally vouch for. How is it more exhibitors do not take them up? Never has any variety presented a better opening for an exhibitor. Mr. Gamon was well first with a nice pen, their faults being darkish feet and white earlobes, but they were very praiseworthy, well marked, and a good match in colour. In most of the other pens the cockerel was too light in colour. The pullet in the second-prize pen was particularly good in colour, but not quite perfect in toes; the cockerel a nice shape. The cockerel in the third-prize pen had a cuckoo tail—a very difficult feature to obtain.

The next class might well have been for *Whites and Yellows*, so many birds were there of a yellow tinge. This objectionable feature is not tolerated by the judges in most white breeds, and I live in hope of seeing the day when the same may be said of White Dorkings. The first-prize pen of Whites were certainly the largest, but the cockerel leggy. The second-prize birds seemed very yellow to me, while the toes on the cockerel's left foot were very rudimentary. Third a nice pen. Pen 41 (Pilgrim), was very white in colour, good in comb, and was quickly claimed (£2 10s.). Pen 42 (Robinson), contained the largest pullet in the class. Pen 46 (Cresswell), was the Birmingham cup cockerel, and particularly good in colour, comb, and shape. Pen 50 (Tearle), also very good in colour, but hardly large enough. I append my name in order that exhibitors may take the above remarks for what they are worth, and shall be only too glad when brother fanciers will do the same for me.—T. C. BURNELL.

GUISBOROUGH CANARY SHOW.

THE following awards were made at this Show, held on October 30th and 31st:—

NORWICH.—Clear Yellow—1 and 2, J. Adams. 3, J. Stevens, Middlesbrough. *he*, Moore & Wynne, Northampton. c, Quinn & Son, York. *Clear Buff*—1 and 2, J. Adams. 3, H. Winter, Guisborough. *he*, G. Cox, Northampton. c, J. Bexson, Derby.

NORWICH.—Evenly-marked Yellow or Buff—1 and 2, J. Adams. 3, G. Cox. *he*, Moore & Wynne. c, Quinn & Son.

NORWICH.—Ticked or Unevenly-marked Yellow—1 and 2, J. Adams. 3, J. Bexson. *he*, J. Gales, Darlington. *Ticked or Unevenly-marked Buff*—1 and 2, J. Adams. 3, T. Tenniswood, Middlesbrough. *he*, J. Bexson. c, Moore and Wynne.

NORWICH.—Crested—1, R. Hawman, Middlesbrough. 2, W. J. Hampton, Darlington. 3, G. Cox. *he*, Quinn & Son. c, Petty & Cuss, York.

LIZARDS.—Gold or Silver-spangled—1 and 3, Cleminson & Ellerton, Darlington. 2, Holdsworth & Oliver, Harrogate.

CINNAMON.—Jonque—1 and 2, J. Adams. 3, M. Burton, Middlesbrough. *he*, E. Winter, Guisborough. c, J. Bexson. *Buff*—1 and 2, J. Adams. 3, G. Cox. c, J. Bexson.

YORKSHIRE.—Clear Yellow—1, R. Williams, Guisborough. 2 and *he*, E. Winter. 3, J. Williams. c, J. C. Hewison, Guisborough. *Clear Buff*—1, W. Winter, Guisborough. 2, J. Stevens. 3, J. Garbutt, Great Ayton. *he*, J. Pearson, Great Ayton. c, L. Belk, Dewsbury.

YORKSHIRE.—Ticked or Unevenly-marked Yellow or Buff—1, J. Stevens. 2, J. Rowland, Skelton. 3, J. Williams. *he*, W. Carrick, Middlesbrough. c, J. Garbutt.

GREEN.—Clear—1, J. Rowland. 2, J. Stevens. 3, T. Tenniswood, North Acland.

COPPY.—Crested—1, J. Garbutt. 2, L. Belk. 3, J. Stevens. *he*, J. Sedgwick, Stockton-on-Tees. c, J. Lennard, Guisborough. *Plain-headed*—1, L. Belk. 2, J. Thackray, Bradford. 3, E. Moon, North Ormesby. *he*, J. Stevens. c, J. Garbutt.

CANARY.—Any other variety—1, R. Hawman. 2, L. Belk. 3, Fryer & Hol South Stockton. *he*, M. Burton. c, Johnson & Armstrong, Northallerton.

GOLDFINCH NILE.—Dark—1 and *he*, S. Bunting, Derby. 2, G. Cox. 3, R. HAWMAN. c, Fryer & Holt. *Any other variety*—1, S. Bunting. 2, T. Tenniswood. 3, Moore & Wynne. *he*, J. Stevens. c, H. Winter.

GOLDFINCH—1, S. Bunting. 2, H. West, Darhoughton. 3, W. Bishop, Guisborough. *he*, M. Burton. c, W. Carrick.

LINNET—1, M. Burton. 2, S. Bunting. 3, W. Carrick. *he*, J. Carrick. c, J. Calvert.

BRITISH BIRD.—Any other variety—1, Fryer & Holt. 2, R. Pearson. 3, G. Cox. *he*, J. Rowland. c, W. & C. Burniston.

SELLING CLASS—1, J. Thackray. 2, T. Cleminson, Darlington. 3, W. & C. Burniston. *he*, W. Henderson, Whitby; G. Cox. c, J. Shephard, Guisborough.

CAGE OF SIX—1, Cleminson & Ellerton. 2, T. Cleminson. 3, W. J. Hampton. *he*, S. Bunting.

FOREIGN BIRDS—Rev. F. H. Morgan (Rose-necks).

JUDGE—Mr. J. Calvert, York.

THE TURBIT.

THE shouldered variety is one of the prettiest of our fancy Pigeons, and commands the admiration of all at first sight. It is small, neat, and elegant in appearance; rather short; chest broad and full; active and interesting; good breeder; and can be had in a great variety of colourings; which, in the shouldered birds, gives a pleasing contrast and beauty of plumage peculiar to this variety of Pigeons.

The head of the Turbit is quite peculiar, and differs from any other variety of Pigeons except the Owl, which it somewhat resembles. The head should be broad, full, and short, while the top should be somewhat flat. The beak should be white, broad at the base, like that of a good Owl; but perfectly straight, and cannot be too short. In this point, as well as in size, Turbits have degenerated much in late years—too much regard being paid to frill and purity of marking, at the expense of other equally important points.

"The eye should be large and full, of a dark hazel colour, having the pupil black. A point of great merit is for the eye to be encircled by a buff-coloured lash or cere." Most of the birds imported from England at the present day have a point or peak-crest in place of the shell-crest or turn-crown. They look very neat; but I do not like them as well as the shell-crest. I have never bred a bird with a point or peak-crest from shell-crested birds; but, in most cases, when a shell-crested Turbit is crossed with an Owl, the point or peak-crest is produced; which would seem to indicate that a peaked bird is not as pure as the one with a perfect shell-crest. The point-peak or shell-crest is formed by feathers growing upwards on the head and neck, and coming to the point or crest just above the head. In good birds the neck feathers grow backwards from the throat, forming what is called by fanciers a perfect mane from the crest down to the shoulder, as in good Jacobins. The gullet is also a very important point in Turbits, and is formed by a loose skin, forming a kind of dewlap under the beak, which, in good birds, will continue until lost in the purle or frill, which should be well developed, with the feathers growing each way outwardly from the centre of the breast, and cannot be too large. The better the frill the more valuable the bird; young fanciers seldom paying any attention to other points if the bird is well frilled and comparatively well marked—losing sight altogether of head, beak, and gullet. The secondary wing feathers, greater and lesser wing coverts, and scapular feathers, should be the only feathers coloured in the shouldered birds; the rest of the plumage, including the ten flight feathers, should be pure white. We would remind the beginner that we are describing a perfect-shouldered bird, like the cut above (fig. 115*)—which our artist has re-engraved from the London JOURNAL OF HORTICULTURE, and which we have not yet seen—they always having more or less coloured feathers on the body under the wing, sometimes extending to the rump and thighs. But if the coloured feathers do not show at all when the bird is at rest, and it is otherwise perfect, it would be classed as a good bird. The colouring should be as pure as possible, the following being the recognised colours of the present time in the shouldered birds; Black, blue with black bars; Blue, with white bars, and plain-winged Blues; Silver, with white bars; Silver, with black bars; Silver, with brown bars; and plain Silvers; also, plain Red and plain Yellow. Booted Turbits are not unusual, and are supposed to be of German

* We reproduce the original engraving from the twentieth volume of our new series.—Eds. J. of H.

origin. The Turbit is thought by many to be a native of the south of France, as it is said to be found there in greater perfection than elsewhere. Germany also claims it as one of her own production, which I am inclined to think, with just reason, as most of the varieties and colourings now bred in this country are traceable to Germany. They have been a favourite of mine for years, and I have bred and seen more than twenty-five different varieties and colourings, nearly all of which (except the shouldered birds) can be traced to Germany, and a majority of these also came from that country, many of which were quite well booted, which is not often the case with Turbits brought from England. Brent says that dark tails in the shouldered

birds were not objectionable. I have occasionally seen birds coloured in this way, but did not consider them as a pure variety, but supposed them to have been bred by crossing the shouldered and tailed birds together. Shouldered Turbits without caps are also frequently met with in this country, and were once much more common than now, and are often sold as "shouldered Owls." Most of the specimens I have seen had the appearance of being produced by a cross between the two varieties. The two latter varieties or colourings I have never known any fancier attempt to breed pure; but have only occasionally seen them in the hands of dealers.—Jos. M. WADE.—(*American Fanciers' Journal*.)

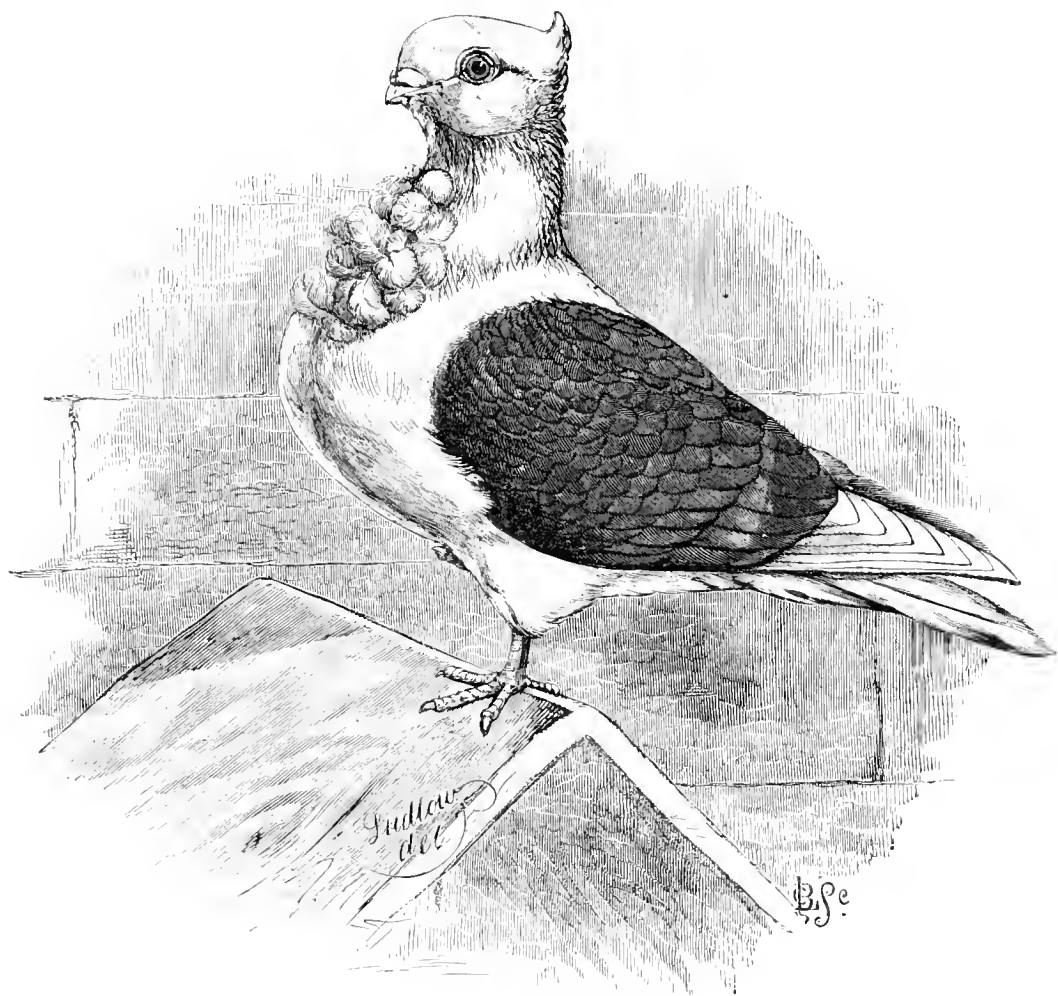


Fig. 115.—THE TURBIT.

[The Turbit is without doubt one of the very prettiest of all our Toy Pigeons. In addition to all Mr. Wade says of its beauty there is one point which makes me admire the Turbit, and that is the peculiar soft look of its feathers—a kind of silky downy look which is very pleasing. It looks like a bird fitted for a child or girl to fondle. Mr. Wade prefers the shell-crested to the point-headed. I own I do not. As to which is originally correct, I must add that neither is. The smooth-head is the original. The portraits in the "Treatise," Girtton, Eaton, by Wolstenholme, and down even to Brent, are all smooth-headed. The last-named writer is the first who alludes to any crest at all. As the modern fancy says we must have a crest to the Turbit, by all means let it be the point head; this suits the character of the beak and head, and keeps the bird removed far away from the Nun kind. Booted Turbits are simply atrocious. I also think that, if not English, the Turbit is French, and not German: it is a bird to please the Celt rather than the Saxon, and leg-feathering would utterly destroy its *petite* neatness. The Pouter needs his long legs, which are so conspicuous, to be covered. The bulky Trumpeter needs his legs to be booted to match his heavy-feathered head; but protect na from any small, dapper, neatly-shaped bird being feather-legged. A finely

chiselled face in man needs no whiskers; and as the Empress Josephine said of Napoleon's, "his was one of the few that needed none," so the finer the shape in Pigeons the less need of leg-feathering. I would almost as soon have the Almond Tumbler booted as the Turbit. The blundering-looking Brahma fowl wants his leg-covering, not the perfectly and symmetrically formed Game fowl. Let all in fancy matters be consistent.—WILTSHIRE RECTOR.]

MIDDLESBOROUGH BIRD SHOW.

"WIRE-IN," a fancier once said to me, "and if you are defeated let it be no bar to your future endeavours." There appears to have been no lack of determination on the part of many fanciers in different parts of England to do battle at the Canary Show held at the Odd Fellows' Hall, Middlesborough, on October 23rd and 24th. The very good schedule issued was responded to by exhibitors, who contributed no less a number than 389 entries, to "wire-in" for the respective money prizes and the "specials," which consisted of a five-guinea silver cup, presented by Mr. George Handsome, of Middlesborough, to the winner of the best Mule in the Show; the President's croquet, "Happy as a King,"

valued at £2, to the most successful exhibitor in Classes 1 to 17 inclusive; and the Committee's electro-plated silver cup, of the value of two guineas, to the most successful exhibitor in Classes 18 to 34 inclusive. It appears the principal cup was awarded to Mr. J. Spence, of South Shields; the cruet to Mr. John Adams, of Coventry; and the Committee's cup to Mr. J. Stevens, of Middlesborough. I am pleased to learn that the members of the Middlesborough Ornithological Association can boast of their fourteenth annual Exhibition, brought about, too, by fanciers of the right stamp. I need only mention the names of Mr. R. Hawman (President), Mr. J. Stevens (Treasurer), and Mr. W. Carrick (Secretary), as a guarantee that the Exhibition was conducted in a way worthy of the occasion. Middlesborough is only one of the numerous places in Yorkshire, which county, however, cannot quite lay claim to having as many annual bird shows as there are towns in its divisions—not quite; but it (the county) undoubtedly bears the palm in far surpassing all others in England for the number of bird exhibitions; and, to judge of the number of fanciers the question arises, What becomes of all the birds bred in Yorkshire alone? The question may be answered in this way: The best, or, as the fanciers would term them, the "plums," are kept principally for show purposes, many finding homes in various habitations, and numerous others being purchased yearly by London and other dealers. The breed of Canary styled "Yorkshire" is as peculiar to that part of England as the "Norwich" bird is to the midland and the more southern districts. At the South Stockton Show there were eighty-nine specimens of the Yorkshire breed exhibited, and at the Middlesborough Exhibition there were 101 for competition. The town of Middlesborough is adjacent to Stockton, and is of easy access by the river Tees. It was at the latter place a bird show was recently held, and, as an eye-witness, I will note down a few remarks concerning the respective positions of several of the prize birds at each of the shows.

Belgian birds came to the post in somewhat stronger force, Mr. Hawman taking a first and third, Mr. Moffat a first, Mr. Jobling a third, and Messrs. Fawcett & Anderson occupying second and third positions. The birds were exhibited in two classes—namely, Clear or Marked Yellow, and Clear or Marked Buff. At Stockton Show Mr. Hawman occupied a third position, and Mr. Jobling first.

Norwich (Clear Yellow), although not strong in numbers were well up in colour and condition. Here Mr. Cox, of Northampton, kept Mr. Adams out of the first place with a splendid bird, the latter exhibitor putting in an appearance for second and third with a pair of fiery-looking birds. At the Stockton Show Messrs. Johnson & Armstrong won a second prize in Clear Yellows, but here the bird was not noticed. Clear Buffs.—The first prize, a "clipper," was added to the account of Mr. Adams, who also won second honours. Mr. Bexson, Derby, won the third prize with a fine specimen. Mr. Simpson's bird was highly commended. At Stockton the same exhibitor took the first prize in Clear Buffs. There were only five Even-marked Norwich shown, the contest being between Messrs. Brown and Gayton, Messrs. Moore & Wynne, and Mr. Adams, the latter having to give way to both the Northampton firms, which proved too strong for him. Evenly-marked Buff.—This was a much better class, Mr. Adams being justly awarded first honours, Mr. Cox second, and Messrs. Johnson & Armstrong third. At the Stockton Show the latter exhibitors stood in the front rank, Mr. Adams occupying the second place, Mr. Simpson the third, but not named at Middlesborough. In the Unevenly marked Norwich classes, Yellow and Buff, Mr. Adams was first and second in each, Messrs. Bexson and Hawman each gaining a third prize. In Class 8 Mr. Cockerton entered a bird wrongly.

There were but five entries in Crested Yellow Norwich, Mr. W. J. Hampton winning first honours. Messrs. Cleminson and Ellerton's bird, the second-prize, will appear better when the crest is more developed; third prize, Mr. G. Cox. The Crested Buff class brought up ten entries, but the winner of the first prize was not exactly to my liking, there being some evidence of Copy breed in it. It was shown by Messrs. Brown & Gayton, and claimed by Mr. Hawman, as I was given to understand. The second-prize bird, shown by Mr. Doman, of Nottingham, would have been more in its place had it been first. Mr. Cox was a good third. There were eleven birds exhibited in Class 11, Copy Crests.

Lizards.—What a change in a few days in the Lizard classes! I have an idea that Mr. J. N. Harrison knows something about a Lizard bird when he sees a good one; for, if I mistake not, he himself has possessed above one first-class specimen of this choice breed of Canary. No "chaff," or "dodges," to use a very vulgar expression, could have influenced him in his decisions. I have seen it stated somewhere in print (I cannot just now calculate, as a Yankee would say), that Darlington, so famous for the past two or three seasons for Lizards, held its own. It appears so, judging by the recent achievements at Nottingham, Northampton, Stockton, and, last of all, the present Middlesborough Show. Respecting the latter two in particular there is just this difference: At South Stockton Show Mr. R. Ritchie

had awarded to him first and second prizes for Golden-spangled, Messrs. Cleminson & Ellerton being third; but at the Middlesborough Exhibition Messrs. Cleminson & Ellerton's Golden Lizards were awarded first prize and a very high commendation, Mr. Ritchie being placed in the second and third positions. This looks something like a reversal. Again, in Silver-spangled Lizards, at Stockton Show Mr. Ritchie stood first and second, Messrs. Cleminson & Ellerton at the same Show only being third. Now, at Middlesborough Show, the one I am now reporting, another reversal of the Stockton awards takes place—namely, that of Messrs. Cleminson & Ellerton winning first prize with their only bird entered, thus again compelling Mr. Ritchie to retire to a third position with one of his birds, and having a high commendation for the other. There are other noticeable changes, one of which is worth recording—that of Mr. J. Stevens's bird. At Stockton Mr. Stevens was only very highly commended for his Silver Lizard, but at Middlesborough he stepped in for second honours. Doctors will differ, I am aware, and so will judges. It is not to be wondered at, considering their varied talent. This, in all sober seriousness, is given without any "chaff" whatever. In Class 14 I will do Mr. Ritchie the justice by noting that he well-earned the first, second, and third places with his broken-cap birds. Some of these birds often carry many good points. Such is the case with Mr. Ritchie's birds. The Lizard classes were not to be considered strong classes, for there were but twenty-two specimens in the three classes.

Cinnamons.—The old tale—Mr. Adams being first, second, and third for Jonques, and first and second for Buffs. Still in the latter class there is a bit of a change, for Mr. Adams (at least the Judge) gave a third prize to a capital bird in the Buff class, shown by Mr. Cox. The Variegated class of this breed was thus disposed of—Messrs. Brown & Gayton first, Mr. Brooks second, and Messrs. W. & C. Burniston third.

The *Yorkshire* classes were very well filled, there being no less than 101 birds in the six classes. Messrs. Lenox & Kenwick, W. Lickley, W. Hutton, R. Hawman, J. Garbutt, and George Gott were the principal prizewinners.

Clear Green brought to the post four birds, three of which had prizes given to them. There is something really so "green" about this class that the sooner it is abolished the better if no more than four specimens can be produced. I would suggest the "Any other variety of Canary" class as the most suitable one in which to enter the "Green" birds; but, as the Middlesborough Committee had not provided one, perhaps it will be considered for the next Show.

Mules.—In Classes 25 and 26 there were several very good birds exhibited (nothing sensational) of the Evenly-marked and dark kinds of the Goldfinch and Canary breeds. In Class 27, "Linnet Mule nearest Canary," Mr. Spence exhibited two birds for which he obtained second and third prizes, and Mr. Stevens one for a first prize. The second-prize bird was awarded the cup, as for the best Mule in the Show. One word of advice to the Committee: Do away with the remark "nearest Canary," for I consider it an extraordinary act to give a bird a first prize, and then award a special prize of the value of five guineas to a bird taking second in the same class. The second-prize Mule, if the best Mule in the Show, should have had at least first honours awarded. I do not believe in a premium being given for a specimen because it happens to more closely resemble a Canary. It might, possibly, be of the veriest puny kind.

The other classes were tolerably well filled, and contained many fine-plumed birds of the British kinds. The Selling class had twenty-seven birds in it; and in Class 35, for stuffed birds, reptiles, or animals, there were many well-executed cases. The prize list was given last week.—AN EYE-WITNESS.

PAINTED DOGS.

A curious practice exists among certain tribes of the South American Indians of painting their dogs. The appearance of these animals, as might be assumed, is most peculiar, and a stranger, ignorant of the customs of the people, would be at a loss to account for the peculiarity of their appearance. They are to be seen of all colours—yellow, blue, green, and scarlet; while others are mottled with every variety of tint. A South American traveller, who recently accompanied a party of natives on a tapir hunt, says that it is the custom among many of the tribes of the South American Indians to dye, not only their own bodies, but the hairy coats of their dogs, with brilliant colours obtained from vegetable juice, such as hucic, yellow roca, and indigo. The light grey, often white, hair of these animals favours the staining process, and the effect pleases the eye of their savage masters; but, to a stranger, the effect is fantastical. "I could not," he says, "restrain my laughter when I first scanned the curs in their fanciful coats; picture to yourself a pack of scarlet, orange, and purple dogs."

BRITISH BEE-KEEPERS' ASSOCIATION.—The Ealing Institute, on the 10th inst., will inaugurate their winter session by a lecture

on the honey bee, to be delivered on behalf of the above Association by Frank Cheshire, Esq. The lecture will be illustrated by large and original diagrams, models, and hives with and without living bees.

IVY HONEY.

Our bees here have been extraordinarily active the last week collecting honey from the ivy blossoms. It is so plentiful that cells long empty are now filling fast, and my stocks are getting quite heavy again. This honey tastes exactly like the ivy leaf when chewed in the mouth, and is equally acrid, only of course much sweeter. Will Mr. Pettigrew say that this acrid taste is not existing in the crude syrup gathered in the flower, but is developed in the stomach of the bee when the honey has been re-swallowed and transmuted according to his theory? I have found ivy honey in every respect the same whether in the open cells or sealed-up, with this only difference, that in the open cells it is somewhat more fluid.—B. & W.

HIVES.

A SHORT time ago a correspondent requested me to give a description of the hives which I use and recommend. This woodcut (*fig. 116*), will help him and other readers of the *Journal* to their shape and appearance. There are three sizes—viz., 16-inch, 18-inch, and 20-inch hives; that is their width inside measure, and they are all 12 inches deep. When well filled they weigh respectively 60 lbs., 100 lbs., and 130 lbs. They are made of wheaten straw, neatly and firmly built. They are made in Ayrshire. Very few English skep-makers can produce hives equal to them. I have succeeded in teaching three or four persons only in England to make excellent hives, but they do not make them for sale. In Scotland the makers use tubes in sewing hives, and thereby produce them much neater and firmer than those made in this country. In Scotland the sizes we have used are fast being introduced into practice. A few days ago an apiarist in the north of Aberdeenshire wrote—"Bee-keeping here is in a sort of transition state. A great impulse has been given to it by the publication of your book. The general size of skeps with us used to be from 11 to 13 inches wide inside, and about 1 foot deep. These small skeps are fast going out of use; and 16-inch and 18-inch skeps are in numerous instances used all over the county, as well as in the neighbouring county of Banff. The heaviest hive here that I have heard of belonged to Mr. Gordon, of Gartley, the weight gathered being 164 lbs. gross. Two at New Pitsligo weighed 128 lbs. and 126 lbs. respectively. Mr. Cruickshanks here had one 120 lbs. One was 109 lbs., and two more (one of which was mine), weighed 104 lbs. each. This one of mine gathered 10 lbs. in one day. All were swarms of the present year. Mr. Gordon's and Mr. Cruickshanks' were filled by swarms that came off at the same time and joined together. All were late swarms obtained about the 6th of July."

The mention of such figures astonishes many bee-keepers in England; but let me say for their encouragement, that many bee-keepers in Scotland were equally astonished a few years ago by the published accounts of bee-keeping in my native parish—Carlisle, Lanarkshire. This year Aberdeen and Banff have beaten Carlisle by nearly 20 lbs. per swarm. Let us hope that many bee-keepers of England will emulate the apiarists of the north. I know no reason why they should not surpass the Scotch. Swarming is earlier here, and our climate is better. In 1865 I called on a cousin in Carlisle. He was amongst his bees at the time. "Well, Robert, how are your bees doing?" He answered in these words, "I have some awful swarms; if they get a gie gude turn on the heather, they will be two hunner pounds a-piece." The secret of all this lies in the use of proper hives, and the hives used by us and the advanced bee-keepers of Scotland have not been altered or improved for fourscore years. They are comfortable and capacious domiciles for bees, and easily managed by their owners. Cross-sticks are used in them, to which the bees fasten their combs, and thus they are made secure for travelling. It would be a great gratification to me to be able to commend bar hives as highly as those already noticed. Neither my commendation nor condemnation will interfere much at present with their adoption and use by amateurs. They will have their day amongst such apiarists, will undergo many modifications and improvements, and, when perfected and widely spread, they will probably go into disuse. "Is it because they are made of wood that you venture on making these predictions?" No. Of course

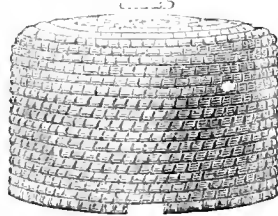


Fig. 116.

all kinds of hives would be better if made well and substantially of straw. The frames inside the hives render their combs moveable. This is their distinguishing feature.

Bar frames can never help bees anywhere. They cannot teach bees anything, and the fewer hindrances we put in their way the faster they get on. Bar frames in bee hives are both unnatural and obstructive. Some may say, "We all know that, but lately we have made our frames without the bottom bars, so that the bees can make their combs $1\frac{1}{2}$ inch longer." This, doubtless, is an improvement which may encourage the advocates of this kind of hive to advance further in the same direction.

Again, bar-frame hives are not made to be enlarged by ekes. Their makers and patrons have not yet thought of making preparations for holding in a single hive 150 lbs. weight of combs. Three of the best bar-framers would be needed to hold so much. The Stewarton hive is made for enlargement, and is managed on a principle. When the bees require space they get it.

Again, if managed on the non-swarming principle, bar-frame hives are filled with brood from side to side. About the swarming season and afterwards it is impossible to get a bar of virgin honeycomb out of them. It should be borne in mind that the bars are placed about half an inch apart; the combs or bars being about 1 inch thick. When honey is obtained plentifully bees build their honeycombs more than an inch thick, sometimes 3 inches thick. They are better architects than their masters, and know better how to furnish their houses than we do. This year I should guess my hives on the moors gained 3 lbs. for every 1 lb. that the bar-frame hives gained standing side by side. We are glad to let everybody know how much our hives weigh; but when I ask the principal bar-frame dealer in this neighbourhood how heavy his hives are, he replies that he does not keep bees for honey.

Another objection to the use of bar-framers by bee-farmers is this, that their combs are more liable to break down in being removed to the moors. There are no cross-sticks to fasten the combs to. This year, in the month of August, though not very favourable for honey, the best of hives gathered from 30 lbs. to 40 lbs. each. Their moveable combs, it is said, make them more profitable than other hives. Their honey can be taken without the destruction of their combs by the honey-extractor. Probably the introduction of this American slinger has given them a popularity for a time. I think it has never been proven that hives with moveable combs are the most profitable. If so, where is the evidence?

To those of your readers who have a preference for bar-frame hives, and who use them with a view to get pure virgin honeycomb, let me suggest the use of hives large enough to hold about fourteen bars, for in such hives the outer bars would be often filled with honey, and not with brood. I am also of opinion that the appearance and quality of bar-frame hives would be greatly improved by having the straw worked into their outer frames by an accomplished Scotch skep-maker.—A. PETTIGREW.

THE ADJUSTING HIVE.—Now that the Crystal Palace Bee Show is a thing of the past, I rather regret not having exhibited and explained the principle of my "adjusting" hive, as it has proved, and will continue to prove, a very successful hive when a large produce of honey is the object desired. Our respected and frequent correspondent "B. & W." is right in his supposition that this hive was described in *THE JOURNAL OF HORTICULTURE* some years since—so long ago, indeed, that a description of it may not be unacceptable again, whilst the interest which the Exhibition created is so fresh in one's memory.

It was in 1847 that the stock hive was first tenanted by a swarm, and in 1848 that the first opportunity offered of testing the capabilities of the "adjusting" system; and on this first occasion it proved satisfactory, the adjuster or remunerator being nearly but not quite filled with honeycomb of 98 lbs. weight. Again, in 1863 two supers worked on this principle were obtained of the weights respectively of 112 and 109½ lbs. net: at the same time I feel confident that in neither of these instances, nor indeed in almost any case, if supers of the same capacity had been simply placed on the stock hive would they have been more than partially filled, for the bees would have been discouraged, and have been a long time in commencing their comb-making, instead of at once clustering and beginning in a small portion of the box of 6 inches only. What, then, is this adjusting system? It is a plan of cheating the bees into a belief that they have just to fill a shallow storehouse of 6 inches in depth with comb. They do so, and quickly too; but they find, to their astonishment perhaps, they must extend their comb 3 or 4 inches more ere they reach the bottom; and so on again and again, working all the harder to fill up the vacant space between their storehouse and domicile.

The original hive on this principle consisted of a stock box, the dimensions being a cube of 12 inches inside measure. The adjuster was 18 inches in depth, and made to slip easily down over this box telescope fashion, and, when resting on the bottom

board, leaving a space of 6 inches only between the top of the stock hive and the bars of the adjuster. In the two sides of the hive are let-in broad racks of hard wood, and in the top box two catches, taking into these racks, to retain the box at any height. Windows give a full view at the back and sides of the adjuster when in any position; and lifting it causes no disturbance whatever to the bees, which continue to work uninterruptedly during this simple operation. Perhaps I may modify the dimensions; for, since inspecting the hives in the late Exhibition I have, as well as many others, picked up many hints respecting sizes and other details which may be advantageously applied to this hive; but the arrangement of frames in the stock box and bars in the adjuster have been carefully carried out almost from the first, as well as the attachment of small pieces of guide comb or impressed sheets of wax to the bars.

After all there are disadvantages accompanying these large supers. There is always great danger of combs averaging 10 or 12 lbs. weight separating from their attachments, for, of course, frames are not available in the top box; and again, the difficulty of slinging the honey from such very large combs, unless one of these valuable pieces of bee-furniture were made specially for them, somewhat larger, unfortunately, than they already are. No slingers were dreamed of when this hive was invented. Then there is the great difficulty of sending into the market boxes of such weight and dimensions, but for your own table nothing could be more beautiful than the sealed combs cut out as required. At all events one adjusting hive in your apiary, with your whole attention when necessary devoted to it, would be a source of great pleasure. There is no hive better adapted for the uncertainty of a season's honey harvest. You might obtain the first 6 inches in depth in a poor season, or perhaps half the depth of the adjuster in a tolerable one; or, again, the whole depth of 18 inches in a good season.

I think I may look forward, if all is well, to show and explain one of these hives at the next Crystal Palace bee show; and also, perhaps, see whether I cannot induce my bees to give me a few of the beautiful shallow octagons similar to those which our Scotch friends exhibited. Perhaps they will at the same time obtain a few bell-glasses of honey equal or superior to the one exhibited by—GEORGE FOX, *Kingsbridge*.

In your report of the Crystal Palace Bee Show of Sept. 17th notices is taken of the excellent hive exhibited by Mr. C. N. Abbott—a veritable Woodbury with improvements, costing only 3s. You add, "If the spirits of the departed can take an interest in things mundane, how gratified the shade of our late esteemed correspondent Mr. Woodbury must be at finding that no excuse can now be made by the poor man that scientific hives are too expensive for his use." Now I think it is only justice to our departed friend to say that complete Woodbury hives were manufactured by his carpenter at the small cost of 2s. These cheap hives, however, were only dignified with the name of packing-cases and used by Mr. Woodbury as such, but they were as good as the cheap hives exhibited at the Crystal Palace, and scarcely to be distinguished from them. One of these packing-cases and a copy made by myself have been in constant use in my apiary for ten years; and although the wood is only half an inch thick, they have proved themselves as good for wintering stocks as the more expensive and most substantially constructed boxes. I prefer thin-wooded hives for bee-sheds, as they need no ventilation when their crown boards are covered with carpet or any warm material.—R. S.

ENTRIES AT THE CRYSTAL PALACE SHOW.—We are informed that these amount to no less than 4378.

OUR LETTER BOX.

FOWL'S CROP HARD (*Constant Reader*).—If the crop is hard and does not empty itself in the proper manner, there is something that has difficulty in passing into the gizzard. It is generally hay, hair, or dry grass, which forms a ball; at other times it is something indigestible that has been swallowed, or something that swells like sponge or cork. We have known an excessive meal of wheat, followed by copious drinking, produce the same effect. We have known cases where the crop has burst outwardly from the swelling of food within it. As soon as you have read this get some warm, almost hot water, and pour it down the bird's throat, holding its head up that you may be sure it reaches the crop; manipulate it delicately. If you find it becomes softer continue, and as soon as it yields to pressure then give a tablespoonful of castor oil. This generally gives relief. If nothing will soften it, then it must be opened. Take a sharp knife or razor, and having picked the feathers from the front of the crop in a straight line downwards, cut it open, remove the contents, wash the inside with warm water; sew up first the crop, and then the outer skin; be sure to sew them separately; sew them with coarse thread, and rub the suture thoroughly with grease. The bird must be fed for some time on gruel, and will soon recover.

HOUDAN COCK'S TOP-KNOT (*Old Subscriber*).—It is not a fault for a Houdan cock to have such a top-knot as you describe. It is always made of straight hackle feathers. Poland and all crested-fowl fanciers have dreamed for years of a cock with a hen's top-knot, but it has not been accomplished. It is not the rule that colour comes with age in a Houdan cock, but it often

does. You may overlook the dirty buff and yellow, but red feathers are inadmissible.

POINTS OF GAME BANTAMS (*Weekly Reader*).—First be careful both cock and pullet have legs of the same colour, then see that your cock has a scanty tail, but with well-developed sickles; the tail should be carried sloping; the wings close up, clipped to the body, and not drooping like a Sebright; plumage hard, and the condition startling.

FOWL'S MERITS (*H. II.*).—All the other parts being equal, weight should decide in favour of the older bird.

EXHIBITING POULTRY (*R. S. A.*).—Shows are now so much better conducted, and the feeding is so well understood, fowls do not suffer as they used to do.

CANARY AT THE NOTTINGHAM SHOW.—In answer to several communications, we are of opinion that even if there is not a prohibitory rule, yet those who exhibit birds not their own act deceptively. If the birds win prizes the birds give a recommendatory character to the aviaries of the exhibitors, and purchasers are liable to be misled. If "NOT THE EXHIBITOR'S OWN" were written legibly on a card and fixed on the cage, and the same printed in the catalogue, there would be no objection to the showing another owner's birds.

OLD COMBS IN HIVE (*I. I. M.*).—The combs in your hive are too old and black for further use to bees. A swarm next year will do better in an empty hive than amid such combs. Melt them down for wax.

BEES DESERTING THEIR HIVE (*A. Z.*).—It is quite impossible to say where your deserter bees are gone. They may have returned to the other hive, but if they were in possession of the new hive in August, two months after swarming, it is hardly likely. Have you been infested with wasps? So me hives about here have been ruined utterly by them.

METEOROLOGICAL OBSERVATIONS,

CAMDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W.; Altitude 111 feet.

DATE.	9 A.M.					IN THE DAY.						Rain.
	1874. Oct. and Nov.	Barometer at 32° and Sea Level.	Hygrometer.		Direction of Wind.	Temp. of Soil at 1 foot.	Shade Temperature.		Radiation Temperature			
			Dry.	Wet.			Max.	Min.	In sun.	On grass		
											In.	
We. 28		30.046	55.9	55.9	E.	53.9	62.5	51.2	87.4	61.2	0.010	
Th. 29		30.032	53.4	62.6	E.	53.7	69.0	49.9	87.9	45.4	0.538	
Fri. 30		30.186	50.1	50.0	N.	53.0	54.6	49.1	63.8	49.2	0.060	
Sat. 31		30.501	50.2	49.5	N.E.	52.3	63.2	48.8	58.5	46.6	—	
Sun. 1		30.234	49.1	47.7	N.	51.2	60.5	44.3	54.8	41.8	0.016	
Mo. 2		30.111	47.0	46.8	S.	50.9	62.6	45.2	46.1	46.0	—	
Tu. 3		30.128	45.2	45.1	S.W.	51.0	67.1	41.1	85.0	44.4	—	
Means		30.142	50.1	49.7		52.3	65.6	47.8	71.9	46.4	0.678	

REMARKS.

28th.—Foggy early, but soon cleared off; the day warm and fine; but rain at night.

29th.—Morning fair, but dull; afternoon fine; but the evening wet.

30th.—Rain in the night and morning, and great part of the day; fine for a short time between 2 and 3 P.M., but wet afterwards.

31st.—Rather hazy and damp forenoon; drier in the afternoon and evening.

Nov. 1st.—A slightly dull day, and colder than it has been lately; foggy at night.

2nd.—Damp morning; rain in the past night; but fair by 11 A.M.; and beautifully fine afternoon and evening.

Very little difference in the temperature from that of last week, but the range has been rather less; there having been little sunshine the maxima have been lower, and the nights having been cloudy or foggy the minima have been higher.—G. J. SYMONS.

COVENT GARDEN MARKET.—NOVEMBER 4.

The supply continues good, and meets every requirement, so that prices are nearly stationary, and do not influence the general transactions to any extent. Continental produce comes to hand in good condition, and receives considerable attention, especially for the northern markets.

FRUIT.

		s.	d.	s.	d.			s.	d.	s.	d.
Apples.....	1	0	to 1	6		Chestnuts.....	baske	0	0	to 0	0
Fuherbs.....	lb.	1	0	1	6	Pears, kitchen.....	doz.	2	0	3	0
Cobs.....	lb.	1	0	1	6	dessert.....	doz.	1	0	3	0
Grapes, bothouse.....	lb.	1	6	0	6	Pine Apples.....	lb.	2	0	6	0
Lemons.....	per 100	8	0	16	0	Plums.....	1 sieve	3	0	4	0
Melons.....	each	2	6	0	6	Walnuts.....	baske	10	0	13	0
Oranges.....	per 100	12	0	24	0	ditto.....	per 100	1	0	2	0

VEGETABLES.

	s.	d.	s. d.		s.	d.	s. d.
Artichokes..... doz.	8	0	0	Leeks..... doz.	0	8	0
Asparagus..... per 100	0	0	0	Lettuce..... doz.	1	0	2
French..... doz.	0	0	0	Mushrooms..... pottle	0	2	0
Beans, Kidney..... sieve	1	0	8	Mustard & Cress, punnet	0	2	0
Broad..... bushel	0	0	0	Onions..... bushel	3	0	6
Beet, Red..... doz	1	0	8	pickling..... quart	0	8	0
Broccoli..... bundle	0	9	1	Parsley per doz. bunches	2	0	4
Brussels Sprouts sieve	2	0	3	Parsnips..... doz.	0	9	1
Cabbage..... doz.	1	6	2	Pears..... doz.	0	0	0
Carrots..... bunch	0	4	0	Potatoes..... bushel	2	0	4
Capicums..... per 100	0	0	0	Kidney..... doz.	3	0	6
Cauliflower..... doz.	3	0	6	Radishes..... doz. bunches	1	0	1
Celery..... bundle	1	8	2	Rhubarb..... bundle	0	9	1
Coleworts..... doz. bunches	2	8	4	Salsify..... bundle	1	8	0
Cucumbers..... each	0	4	0	Scorzonera..... bundle	1	0	0
pickling..... doz.	0	0	0	Sea-kale..... basket	0	0	0
Endive..... doz.	2	0	0	Shallots..... lb.	0	8	0
Fennel..... bunch	0	8	0	Spinach..... bunch	2	0	4
Garlic..... lb.	0	6	0	Tomatoes..... doz.	0	6	2
Herbs..... bunch	0	8	0	Turnips..... bunch	0	4	0
Horseradish..... bundle	3	0	4	Vegetable Marrow..... doz.	1	0	2

WEEKLY CALENDAR.

Day of Month.	Day of Week.	NOVEMBER 12—18, 1874.	Average Tempera- ture near London.			Rain in 43 years.	Sun Rises	Sun Sets.	Moon Rises.	Moon Sets.	Moon's Age.	Clock after Sun.	Day of Year.					
			Day.	Night.	Mean.									Days.	m. h.	m. h.	m. h.	m. h.
12	Th		50.2	33.8	42.0	17	15	af 7	13	af 4	5	11	35	5	3	15	42	316
13	F	Twilight ends 6.11 p.m.	49.9	35.2	42.6	22	17	7	12	4	after.	31	5	4		15	34	317
14	S	Stratford Chrysanthemum Show opens.	48.5	33.8	41.2	21	19	7	11	4	44	0	40	7	5	15	24	318
15	SUN	21 SUNDAY AFTER TRINITY.	49.0	34.8	41.9	19	20	7	9	4	15	1	58	8	6	15	11	319
16	M	Mentzel died, 1701. { opens.	48.9	33.2	41.0	14	22	7	8	4	34	1	21	10	7	15	8	320
17	Tu	Bury St. Edmunds Chrysanthemum Show	48.1	33.9	41.0	19	24	7	6	4	56	1	45	11	9	14	52	321
18	W	Stoke Newington Chrysanthemum Show { closes.	47.9	32.9	40.4	20	25	7	5	4	10	2	morn.		9	14	39	322

From observations taken near London during forty-three years, the average day temperature of the week is 43.9°; and its night temperature 34.2°. The greatest heat was 62.5°, on the 16th, 1840; and the lowest cold 18°, on the 15th, 1845. The greatest fall of rain was 1.24 inch.

From observations taken near London during forty-three years, the average day temperature of the week is 43.9°; and its night temperature 34.2°. The greatest heat was 62.5°, on the 16th, 1840; and the lowest cold 18°, on the 15th, 1848. The greatest fall of rain was 1.24 inch.

AURICULAS.—No. I.



RECENT notes upon Auriculas tempt me to offer some while those are comparatively fresh. Mr. Douglas has given an account of the flowers he met with in the hands of a representative grower in Scotland. I am more conversant with the collections in Lancashire and Yorkshire, counties which may be called the equatorial regions of Auricula-growing, and indeed the torrid zone of fervour and enthusiasm about them. This, for the simple reason that there are more of us together here; and not that there is less sincere attachment to the flower either among the growers in the highest northern latitudes across the Border or in florists of the south, who, like "D., Deal," represent the antarctic circle of Auricula culture.

There are yet so few truly first-rate florists' Auriculas in any of the four classes, but still so good material to work from in what there are, that there is much encouragement, as well as much need, to make careful efforts at improvement through seedlings.

Green edges take rank as the highest class; there is such a bright effect in the complete contrast between all the zones of colouring in the flower, in its tube, paste, ground colour, and edge; moreover, a fine green edge is bound to absolute purity of the green, and this is a very difficult property to obtain. Grey and white edges may, without losing their character, be more or less grey and white, but there must be freedom from all specks of meal upon the green edge—no Daisies on the lawn! Faults to be overcome in this class, which are at present notable and common, are starchy petals, as in Colonel Taylor and Imperator; impurity of the green through meal creeping over it, as in General Niell and Prince of Wales; and insufficient breadth of edge, through which, in such flowers as Star of Bethlehem or Duke of Wellington, the body colour dashes at each side of a petal—a grave fault that makes the roundest flower look heavy and angular.

The best green edges we have—and I name only those that are really pure—are Page's Champion, a noble grower with me, pip round-petalled and flat, edge light emerald green, and ground colour a mixture of red and violet plum; Booth's Freedom, with the edge the darkest green of all and very rich, body colour intense black and velvety; Trail's Anna, a seedling from this, like its parent in colour and edge, but with a different play of feature—a better trusser too, Freedom being anything but free in blooming. My best plants have sometimes given me six pips, but four are a fair offer for Freedom. Then comes Leigh's Colonel Taylor. I know an old grower who gave five guineas for his first plant of it. It is shy of increase, and will always be expensive. Colonel Taylor is at times caught superior to all his faults, and is then a full, rich, green edge, with body colour almost black; not a large flower, nor yet too small if kept to a truss of five or six pips. Trail's Prince of Greens is a coming king, with only the weakness of a pale tube. It will carry the

largest head of correct and even pips of any Auricula I know. It is a plant of most stately habit, with every property, perfect in paste, ground colour, and edge; the ground is a rich black, laid on in lively markings, and the edge a rich deep green. To this noble fellowship we may, perhaps, admit Litten's Imperator for the sake of what he can be, but he is generally not that. It has been known as the most perfect green edge, and as a flower without one florist's point of virtue to commend it. The raiser must have had either a lucky maiden bloom or strange faith in this disappointing seedling! It can come horrible wholly or in part, but when right is a vivid light grass-green, with black and dashing body colour.

The grey edges are a strong class. They take the lead in roundness, breadth, and smoothness of petal, as shown in the Ringleader family, a sub-class, to which belong such as George Lightbody and Lancashire's Lancashire Hero (old Robin who raised this is yet alive, and comes to see my bloom). But the grey edges have their faults also. Some of them are "undecided edges," the green showing distinctly through scattered meal, as in Lovely Ann and Trail's Sir Charles Napier. Many in this class are also sadly irregular and insufficient in depth of edge. This is quite a sub-class failing with the blue-and-mauve violet-ground greys, such as Maria, Sophia, Col. Champneys, Queen of Violets, Sophia Dumaresque, and Moore's Violet, the probable parent and ancestor of them all.

Mr. Douglas came upon one of the very best grey edges when he saw Kay's Mr. Meiklejohn. Nothing surpasses it as I have bloomed it. It is new, and if true to its promises it is indeed a gem. It is most like George Lightbody and Conqueror of Europe combined in one grand flower. There is the dash and nearly the size of Conqueror without its coarseness, and the fine form and substance of George Lightbody without its frequent want of life in the body colour and of decision on the broad edge. Plant takes after Conqueror—healthy but not large; foliage long, narrow, thick, much veined, and roughly serrated, green, and more abundant than in Conqueror.

Other great greys are Lancashire Hero, Headly's George Lightbody, Sykes's Complete, Smith's General Bolivar, Headly's Charles Brown (exceedingly like the last), Kenyon's Ringleader, Grimes' Privateer, and Walker's George Levick, a rich silvery grey, full of life and brilliancy throughout the flower, which will rival George Lightbody. These all possess the black body colour so dear in the sight of the old Lancashire florists that they are colour-blind to any other—despising under the one reproachful term of "chaney" all the lovely shades of violet, red, and chocolate that add so much to the variety and beauty of a collection of Auriculas.

Other good greys are Richard Headly, very late, and Fletcher's Mary Anne, a chilly severe flower, with a small cold eye, and generally very correct. Chapman's Maria is a belle, her edge almost white, and body colour a liquid violet blue. Sophia, her sister, is very pretty, with a red violet ground, but neither of them is a show flower with us, the body colour occupying far more than

its fair proportion, and dashing through the edge. Colonel Champey, an intensely rich light flower in colour and edge, has the same fault; but they are all very pretty among the rest, so I grow them on the home stages, though as florists' flowers they must suffer the penalty of a certainly unpardonable fault.

There are other fair grey edges competent sometimes to give exhibition flowers in Campbell's Confidence, Lightbody's Sir Charles Napier, Maclean's Unique, Fletcher's No Plus Ultra, and Waterhouse's Conqueror of Europe. The last two are a pair with such pips for size that nothing else matches them. They are seldom good at their biggest, and get to be coarse in all sizes above that of a halferown.

Notes on white edges and selfs I will offer in the next number of the Journal that has room for them. I will merely add now a cultural hint. November is a month in which the Auricula-grower can ill-afford to neglect two of the golden rules of Auricula-growing—*supply of air and cleanliness*. The plants must be protected from wet overhead in imitation of Nature's dry coverlet of snow, that excludes from dormant plants two unneeded stimulants at once—light and moisture. But as our varieties of Auricula do not so much die down as their wild sisterhood, light and air are always a necessity to them, and must freely be secured in any protection professing to be safe.

Everything about the Auricula, which is itself a plant of the very neatest habit, should be always in the best order. In this mouldy month pots kept free from green slime, the soil from moss and crust, the plants from withered leaves and everything stagnant and rotten, will all conduce to keeping the stock in health at a time which is only a terror to evildoers—the careless growers. Though green fly is less a nuisance now, yet keep them all off; and on this point I prefer a cleaner method of abolishing the enemy than with the tobacco powder of the far north, as instanced by Mr. Douglas. That is only one filth driving away another, and what a mess to make about the fair foliage of Smiling Beauty and Taylor's Glory! Besides, the meal of such plants interposes between the insect and the tissues he would feed upon, and so he mostly betakes himself in these cases to the under side of the leaf where there is less of this non-conductor—where the snow lies not so deep. It is then as little trouble to brush him off with a stiffish little brush, whose bristles generally bayonet him, as to drive him away with the smell of powder!—F. D. HORNER, *Kirkby Malzeard, Ripon*.

WHAT IS A BURR KNOT APPLE?

It has long been my intention to ask your readers to state their opinions on this subject, and I have just come across a few lines on it which I dotted down when living in South Wales, the very home of the Burr Knots, notwithstanding that some believe Yorkshire to have been the place of their origin, which at any rate must date from a very remote period, if not as far back as our native Crab. I have reason to think the Burr Knot older than any of the varieties of Apples at present growing in the United Kingdom. It is pretty generally distributed throughout, and in many parts of Wales forms almost the only Apple grown; I was almost going to say, can be grown, for in some parts so unfavourable are the soil and climate to most Apples, that it is almost the only one that can be grown with any amount of success. It forms the stock to work other varieties on. I do not refer to the better class of gardens where there are borders of the best turfy soil, but to the gardens of cottagers, farmers, and tradesmen, the only real guide. From my own experience in that part, no stock is equal to it for poor, cold, wet, heavy soils where there is a moist atmosphere. The Burr Knots are there known by the name of "Pitchers," why so I cannot say. There are the large, the small, and various other Pitchers, differing much in the colour, shape, size, and other characteristics of the fruit, which, however, is mostly small, the largest under the medium size of Apples generally. What are called Pitchers (Burr Knots) are simply any Apples that will form a tree by merely striking off a branch and placing it in the ground; in other words, all those trees which have an abundance of protuberances, which are masses of rootlets. These are ready at any favourable moment to form a vigorous growth of roots, and the branch becomes established even if it is large enough to have bloom-buds capable of perfecting fruit the same year; more, a branch may be planted in the autumn and grafted or budded the following spring or summer.

But here comes what I particularly wish for information on

Are we to conclude that all Apple trees are Burr Knots that have the characteristic protuberances? Why not at once call them the English Paradise? for no two trees can be more alike than it is to the French Paradise or Pommier de Paradis. I could scarcely believe otherwise than that they were identical when I saw the latter at Chiawick; the style of growth, and more particularly the abundance of large bloom-buds at the points of each shoot, were precisely of the character of one variety of the Welsh "Pitcher." It would be very interesting to learn from Mr. Barron if this stock produced fruit, and if so, its colour, shape, &c. In the variety I speak of the fruit is conical, below medium size, running small to the eye, which is small and depressed, the stalk also small, rather short, and deeply set in the base; colour when ripe yellow, and covered with red stripes; the tree a most prolific bearer as a rule, and always producing its fruit on the points of the young shoots, which are from 3 to 8 inches long. If all be true that is said of the French Paradise—viz., it is tender in our climate, it must differ considerably from the variety of Burr Knots in Wales, as nothing can be harder. There are many other varieties there that are of stronger and more rambling growth than the one in question, which is rather compact-growing, with not so many protuberances about the branches. The fruit are so different in all respects as to make one believe they are of quite distinct races. Some of them are very small, of a yellow colour, with veins of russet towards the stem, many of them having the appearance of having been cut and then haled over with a russet substance. Some varieties are compressed at each end, with a large Pippin-like eye, and stalks long and wire-like; others have a conical-shaped fruit similar to a Nonpareil. Most of these varieties are very long-keeping; some, I am inclined to think, seldom ripen. Many will stand on the trees far on in winter without apparent harm. All these make fine stocks. I have grafted such varieties as Cox's Orange Pippin, Golden Harvey, and others, which made a growth of 2 to 3 feet the second season. In the same soil, when worked on other stocks, they would not grow at all. I should have stated that these latter varieties produce their bloom-buds on short spurs, and not on the tips of the young shoots as with the former variety.

All the varieties I saw in South Wales were such as could be eaten or cooked, and quite different from those generally denominated Burr Knots, Sweet Burrs, &c. In the cider-making counties, as Hereford and Devon, they are a long pale lemon-coloured Apple, much the colour and shape of a Lord Suffield, and about the same size; ripe about the same season as that, but in flavour not so agreeable, for it is a regular cider Apple, which implies it must be a Bitter-sweet. These, too, have the peculiar protuberances, and will grow readily from branches, but are now seldom employed, as they rarely make trees so quickly as the Crab in dry sandy soils. Are we to class these with the others that are so different in all respects except the rooty squamose protuberance?

There is yet one other variety of Burr Knot I have not seen. It is, I understand, grown plentifully in parts of Hertfordshire, and at Ware Park goes by the name of Byde's Walking Stick, and is said to be a large handsome culinary Apple. Can anyone give me more particulars of this Burr Knot? If it is really a large Apple it must be a great improvement on all that I have seen. I have met with a few not-strictly-speaking Burr Knots that have a tendency to produce swollen masses, particularly so in certain situations, and would, no doubt, grow from branches if encouraged to do so, still distinct from the Burr Knot or English Paradise in not throwing out that mass of roots, or keeping the same so close to the surface. Branch-propagation is not, as some seem to think, only known of late years. I doubt not but it was practised by the rude Britons long before budding or grafting was thought of. But to get a large crop of fruit the first year must certainly be new. Whence comes the nutriment to feed this crop?—J. TAYLOR, *Hardwicke Grange*.

CYATHEA MEDULLARIS.

THE plant at Kew of *Cyathea medullaris*, the noblest of Tree Ferns, must be a fine one, doubtless to be the finest to be seen anywhere. When living at Tatton Park with Mr. Cliffe in 1870, we had then a plant nearly 20 feet in the trunk, with more than 12 feet of a frond. The house not being large enough, Lord Egerton determined to put up a larger one, which I believe to be 40 feet square and 35 feet high. This fine plant was to be replanted in the middle of the house already mentioned.

Leaving just at the time, I cannot say how this labour was performed. I have heard it was done, and that the plant succeeded well. I hope Mr. Cliffe will tell us through your columns the height and breadth of this fine plant at the present day.—A. STADDON, *Gorway Gardens, Teignmouth.*

THE CHRYSANTHEMUMS AND ORCHIDS

AT MESSRS. J. VEITCH & SONS, ROYAL EXOTIC NURSERY,
KING'S ROAD, CHELSEA.

THE display of Chrysanthemums at the Royal Exotic Nursery this year is much superior to that of last season, not only in the quantity, but much more so in the quality of the flowers. The large-flowered section is that principally represented, although all the best varieties of Japanese and Pompons are grown. Whatever section of horticulture or of floriculture is taken up by this firm, nothing is done by halves or in a half-hearted manner. Witness the Hyacinth, everybody's plant, and the prince of spring flowers. Now we have the king of autumn flowers, and one that is to be found in every garden. During the last sixteen years I have seen the best collections in England and Scotland, but nowhere have I seen so many really good flowers on the same number of plants as on this collection at Chelsea.

When Mr. Laing, now of Messrs. Downie, Laird, & Laing, had charge of the Earl of Rosslyn's Gardens at Dysart, he exhibited wonderfully large flowers in the Scottish metropolis, and such magnificent flowers of Golden Queen of England I have not seen since. But taking them upon the whole, though they were probably larger than the flowers grown in the south, the climate was against him, and the same finish was not apparent. Mr. Laing's system was to plant the cuttings early in December, and allow them to root slowly in cold frames during the winter, removing the plants to a position under a south wall when danger of injury from frost was not to be feared. It is still the best treatment to put in the cuttings early, and allow them to root without being forced in great heat; but from experience I believe it is not so important to put them in so early in the south, nor so safe, for the earliest cuttings have a tendency to flower during the early summer months, which spoils the autumn bloom. In the north I never saw the early-rooted plants flower prematurely.

There has also been very considerable improvement in the quality of the flowers raised during the last ten years, although for the last five or six nothing of sterling merit has been added to the large incurved or florists' section, except from sports. White Venua, a sport from the silvery lilac variety of that name, and George Glenny, a primrose-coloured sport from Mrs. George Rundle, will hold their own for many years to come.

Of course all the best varieties new and old are at Chelsea, and a few sterling sorts that are to be seen nowhere else. A very fine large incurved flower was pointed out to me as Annie Salter; now this variety I have not seen other than reflexed; whether it is a sport or whether the culture has to do with it, either way it is a better flower than Golden Beverley. A few of the very best are Empress of India, Gloria Mundi, Jardin des Plantes, John Salter, Lady Harding, Lady Slade, Mrs. George Rundle, Mrs. Haliburton, Pink Perfection, Prince Alfred, Prince of Wales, Princess Beatrice, Princess of Wales, Princess of Teck, and Venus. Amongst the Japanese a few of the best are Elaine, Fair Maid of Guernsey, Garnet, Jane Salter, James Salter, Magnum Bonum, Red Dragon, Grandiflorum, Apollo, Dr. Masters, Comet, and many more with quaint and beautiful flowers. Altogether this collection is well worth a visit of inspection, as the flowers are remarkably early this year, and will soon be over. The warm weather in the last week of October exactly suited the Chrysanthemum, and the early days of November have been equally favourable, so that out of doors where just a little attention has been given to tying and placing sticks to the plants the cottage gardens are a blaze of beauty.

Another remarkable feature at Messrs. Veitch's is the very large number of the different species of Orchids at present in flower. Some of them are distinguished for their extreme rarity and magnificent appearance. Of such is *Oncidium Rogersii*, which has a very large spike with twelve branches; its large golden-coloured labellum marks it as the finest of the species. *O. xanthinum* is an allied species, the flowers of the same deep yellow, but very much smaller; the spike is also smaller. *O. verrucosum* is very pretty, and the small-flowered delicately-scented *O. cheiroporum* is also in flower. Amongst

Cypripediums, *C. insigne* var. *Maulei* is remarkably handsome. There are also some very handsome *Cattleyas*. *C. exoniensis* is truly grand; all the varieties are worthy of culture in the most select collections, but some of those in flower here are of the most select character. One of the varieties of *C. labiata* had flowers of immense size, and reminded one of the best varieties of *C. Warnerii* in June. Numerous *Odontoglossums* are represented; *O. Roezlii* in many choice varieties, some of them with deep purple blotches at the base of the sepal; others have merely the usual pale yellow marking. *Maedevallia tovarensis* is now in full beauty. There are many fine specimens. One, very large, has a profusion of its pure white flowers in pairs. Their delicate transparent beauty remind one of the lilies—

"Hath swept the marble where her feet
Gleam'd whiter than the mountain sleet,
Ere from the cloud that gave it birth
It fell, and caught one stain of earth."

Of the Indian *Crocus Pleioneis*, the rather rare *P. Reichenbachiana* is in fine flower; also the Moth Orchids, *Calanthes* of sorts, *Sophranitia grandiflora* in large clumps; and the rare *Angraecum citratum* has a fine spike in an advanced state; indeed, it is seldom that one sees a larger number of species and varieties of Orchids in May.—J. DOUGLAS.

THE GARIBALDI STRAWBERRY.

As I supplemented Mr. Taylor's remarks on President, I may venture to tack on a tail to Mr. Wrather's note on Garibaldi. Mr. Friby, of Blankney Hall, forces Garibaldi largely; it is, in fact, his principal force, and right well it serves him with its heavy crops of well-coloured fruit. Noting its autumnal bearing, I may add that I have seen a border at Blankney in October, not with a ripe fruit dotted here and there as a curiosity, but from which quarts of ripe fruit were regularly gathered. This was from plants forced in the preceding spring. Many a Strawberry lover would have rejoiced over such a crop in July. This is unquestionably an early, free-bearing, and very useful variety of the Keens' Seedling type, but, unlike President, does not flourish so well on a light soil as on a sound generous loam. In a word, it is a good Strawberry with a good Strawberry soil to grow it in.

When in this garden I put the query, "Which is the best preserving Strawberry?" The reply was very prompt. "Grove End Scarlet of course," as if there could be any doubt or question about it. Certainly Mr. Friby had none, and the opinion of such a hard-headed practical man, confirmed as it is by that of many another of those who judge by sheer merit alone, has great weight. He plants Grove End Scarlet a foot apart in beds, gets quantities of fruit, and it produces a better and more beautifully-coloured jam than any other variety. That is the Blankney testimony, and "The Squire" likes everything good, from racers to Strawberries. He does not live in a cave if he keeps a "Hermit."—J. WRIGHT.

ROSES ON BRIAR STOCKS.

In reply to several private inquiries which I have received since I communicated an article to this Journal on the above subject, as to my peculiar method of rooting the Briar, I beg to say that what I select for my stocks are simply the young growths or offshoots of the common hedge Briar. They are not suckers with some roots attached as some of my correspondents suppose, but side shoots from the parent plant, which spring from all parts of the bush—from the centre stem or branches. These are pulled off wherever they occur, provided they are of the right thickness, just as you would take off a cutting or slip of any other plant. They are planted in the usual way, will throw out roots in abundance next summer, and will produce several offshoots or branches up the stock, which will be in nice order for budding about July or August next. Last October I put down about two hundred Briars in this way, and fully 80 per cent. were fit for working in. These I have all budded, and they are doing well. Last week I was transplanting some of these, and they were beautifully rooted, with an abundance of fine fibrous roots, which would have pleased Mr. Prince himself, and would not blush before his "Oxford seedlings." I was also raising some that were put down two years ago and once transplanted. These were quite as well rooted as some *Manettis* I was lifting at the same time, which is saying a good deal. I should say that Briars treated in this way throw up very few suckers, which is

a great consideration. The flowers are much larger and more robust than those on my Manetti stocks. This I have proved year after year.

When I commenced Rose-growing I had my Briar stocks dug-up by the roots, and planted after the old fashion. These, of course, had large, ugly, thick roots with very few fibres, and when budded, produced weak sickly heads, poor flowers, and lived only a few years. Every year some of these die, or are so poor and stunted that I dig them up in disgust, and throw them away. I could point them out from the rest as far as I could see them; but since I began my new plan not a single tree has died, nor are they showing any signs of decay; their vigour and health are refreshing to look at.

If anyone wishes to give this plan a trial stocks should be put down at once. I put mine down early in October, and sometimes in September; but they will do for a fortnight yet. If any brother amateur wishes for further information I shall be most happy at any time to communicate anything I know.—JOHN TURTLE, *Peacefield, Portadown.*

THE LINDLEY MEDAL.

It is gratifying to be able to announce that the Lindley Medal has at last been prepared. It is a handsome work of art, and its value is estimated at £15. On the obverse is a portrait of Dr. Lindley, enamelled with a laurel wreath, and the inscription, "Dr. John Lindley, F.R.S., born February 5th, 1799. Died November 1st, 1865;" on the reverse, Flora with a wreath in her left hand, and the inscription, "Royal Horticultural Society."

ROYAL HORTICULTURAL SOCIETY.

NOVEMBER 11TH.

This was the Chrysanthemum Show, and most worthily was that invaluable autumn flower represented in all its different sections; it was also a Fruit Show, and whether as regards outdoor or indoor productions, it must likewise be affirmed that it was a decided success. Of the latter we will merely say that they were of high excellence; but of the former the grand array of Apples and Pears was a sight which few who saw it will forget. No one probably anticipated such a success, and, unfortunately, those who were not present will not have the opportunity of gratifying themselves by an inspection, as it was only a one-day Show. It bodes well, however, for the future that the last Show of the season should be so well supported. On the exhibition of Chrysanthemums we shall give special notes next week.

Very few Pines were exhibited, thirteen in all; one Charlotte Rothschild, the remainder being Smooth-leaved Cayennes. The first prize for two Smooth-leaved Cayennes went to Mr. Jones, of the Royal Gardens, Frogmore, for two handsome fruit weighing about 8 lbs. each. Mr. W. Chamberlain, The Warren, Bushey Heath, Herts, was second; Mr. G. Sage, Ashridge Gardens, third. For Any other variety exclusive of Queens and Smooth-leaved Cayennes, Mr. G. Ward, gardener to F. N. Miller, Esq., was the only exhibitor, and took first prize with Charlotte Rothschild, weight 6½ lbs.

Of Grapes some excellent collections were exhibited, Messrs. H. Lane & Son securing the gold medal as usual with a collection of not more than ten varieties. Their Muscat of Alexandria and Bowood were really marvellous; Alicante with a fine bloom, and black as jet; Muscat Hamburg very fine; Gros Colman large in berry and beautifully coloured; Lady Downe's and Mrs. Pince both well coloured. Mr. Meredith, of The Vineyard, Garston, was second with good Alicante, Bowood, and Muscat of Alexandria, Lady Downe's, &c.

The only dish of Black Hamburgs came from Mr. G. A. Bromfield, gardener to G. F. Leith, Esq., Prittlewell, but no prize was awarded.

The best Alicante Grapes were sent from Mr. F. Deuxberry, gardener to Lord Darnley, Cobham Hall, Gravesend; second, Mr. C. E. Waters, gardener to A. Mongredien, Esq., Forest Hill. For any other black kind, omitting the above and Black Hamburg, Mr. W. Wildsmith, gardener to Viscount Eversley, Heckfield Place, Winchfield, was first with the most magnificent bunches of Lady Downe's ever seen; the three bunches weighed 8 lbs. 14 ozs. Mr. T. Bannerman, gardener to Lord Bagot, Blithfield, Rugeley, was second with well-finished Gros Guillaume. Mr. Meredith was third with Madresfield Court Black Muscat.

For Frontignan Grapes Messrs. Lane were first with three splendid bunches of Duchess of Buccleuch, beautifully coloured. Mr. J. Burnett, gardener to Mrs. Hope, The Deepdene, Dorking, second with nice bunches of the Grizzly.

In Muscat of Alexandria Messrs. Lane were again deservedly first with their splendid Grapes. Second Mr. W. Cole, gardener

to J. S. Budgett, Esq., Ealing Park. Third Mr. T. Wattam, Sheudist Gardens, Hemel Hempstead. For any other white kind Mr. Wattam was first with well-coloured Foster's Seedling. Mr. Meredith was second with Trebbiano.

The heaviest Black bunch was a splendid one of Gros Guillaume, beautifully coloured, the berries very fine, its weight was 6½ lbs. A very nice bunch of Gros Colman from Mr. Wildsmith, weighing 5 lbs. 12 ozs., was second. The heaviest White bunch was one of Trebbiano, weighing 4 lbs. from Mr. Meredith.

In the class for dessert Apples of twenty-four distinct varieties the first prize went to Mr. J. Pluck, of 33, New Street, Jersey, for splendid specimens of Blenheim Pippin highly coloured, Royal Pearmain, Court-pendu-Plat, and Lemon Pippin, with Reinette Gros Eil, Baldwin, Cooper's Pippin, Reinette Doré, Ribston Pippin, Golden Russet, Royal Pearmain, Cornish Gilliflower, one of the best though by no means one of the prettiest of Apples; White Lily, a beautiful waxlike Apple; Old Pearmain, Pigeon Noir, Red Calville finely coloured, King of the Pippins, Cockle Pippin, Reinette de Canterbury, Reinette Grise, Reinette du Canada, American Crab, Nonpareil, Golden Pippin, and Reinette de Caux. Second came another Jerseyman, Mr. G. Thomas, 22, Burnard Street, Jersey, who had very fine examples of King of Pippins, Royal Pearmain, Beauty of Kent, Cockle Pippin, Reinette de Caux, Court of Wick, with Cornish Gilliflower and others. Mr. J. Scott, Merriott Nurseries, Crewkerne; Mr. F. Rutland, gardener to the Duke of Richmond, Goodwood; Mr. R. Webb, Culham House, Calcot; Mr. G. Gardiner, gardener to E. P. Shirley, Esq., Stratford-on-Avon; Mr. S. Ford, Leonardslee, Horsham; Messrs. Lane, St. Mary's Cray; and Mr. Pragnell also exhibited fine specimens, among which, besides varieties already named, were excellent specimens of Brabant Bellefleur, Adams' Pearmain, Manchester Pippin, Court of Wick, Scarlet Pearmain, Sturmer Pippin, a very useful Apple, Golden Winter Pearmain, generally called King of the Pippins, Golden Reinette, Fearn's Pippin, and Spanish Pippin, a handsome-looking Apple.

For six varieties Mr. C. Ross, gardener to C. Eyre, Esq., Newbury, took the first place with Blenheim Pippin, Cox's Orange Pippin, Scarlet Nonpareil, and Golden Reinette, very fine, Cornish Aromatic, and Margil. Mr. Pluck, Jersey, was second with splendid Blenheim Pippin, Reinette Gros Eil, Reinette Doré, Court-pendu-Plat beautifully coloured, Golden Russet, and Reinette du Canada. Third came Messrs. Lane, St. Mary's Cray, with a fine half dozen, and several other excellent collections were shown.

For three kinds the prizes went—first to Mr. Bannister, gardener to H. H. Ames, Esq., Cote House, Westbury-on-Trym, for Ribston Pippin, King of the Pippins, and Blenheim Pippin, not large, but beautifully clean and well coloured. Second came Mr. C. Ross with Cornish Aromatic splendidly coloured, Blenheim Pippin, and Cox's Orange Pippin. Third Mr. G. T. Miles with Blenheim Pippin, very fine; King of the Pippins, large and finely coloured; and Ribston Pippin.

The next class was for that excellent and beautiful dessert Apple, Cox's Orange Pippin. Here the competition was keen, the dishes shown being almost without exception meritorious. First came Mr. T. Miller, gardener to J. T. Friend, Esq., Margate, with large deeply coloured specimens; second Mr. C. Ross, and third Mr. W. Gardiner, gardener to E. P. Shirley, Esq.

Of Golden Pippin the first-prize dish came from Mr. Brush, gardener to Lady Hume Campbell, Pinner; the second from Mr. Rutland, and the third from Mr. Bannister. For Margil the awards went to Mr. Fraser, Bromley, Mr. G. T. Miles, and Mr. Bromfield, gardener to J. F. Little, Esq., Prittlewell. For Cockle Pippin Mr. Rutland, gardener to the Duke of Richmond, was first with fine specimens, Mr. R. Webb being an excellent second, and Mr. J. Smith, Romford, third. Ribston Pippin was freely represented, though the fruit was not generally of large size. The first prize was awarded to Mr. H. Bannister, gardener to H. H. Ames, Esq., Westbury-on-Trym; the second to Mr. Rutland for handsome finely coloured fruit; the third to Mr. R. Dean, Ealing. For Court-pendu-Plat Mr. R. Webb, of Culham House, Calcot, was first with large and remarkably fine specimens; Mr. Pluck being second, and Mr. Rutland third.

In the class for any other dessert kind the first place was taken by Messrs. Lane, St. Mary's Cray, for magnificent specimens of Blenheim Pippin. Mr. C. Haycock, gardener to R. Leigh, Esq., Burnham Court, Maidstone, was second with splendid King of the Pippins; and Mr. Bennett, gardener to W. Burrell, Esq., Ockendon House, third with Scarlet Nonpareil.

Of Kitchen Apples there was a grand display. First for eighteen varieties came Mr. F. Rutland, Goodwood, with splendid specimens of Gloria Mundi, Blenheim Pippin, Lincolnshire Reinette, Royal Russet, Beauty of Herts, Dumelow's Seedling finely coloured, Flower of Kent, Norfolk Beefing, Shepherd's Seedling, and Nelson's Glory. Mr. W. Gardiner, Lower Ealington Park, was second, also with very fine specimens of Blenheim and Flanders Pippin, Royal Russet, Northern Greening, Alfriston, Costard, and Ettington Seedling. Third came Mr.

Garland, Killerton. Several other highly meritorious collections were exhibited in this class.

For six varieties the first place was taken by Mr. C. Ross with splendid examples of Blenheim Pippin, Lewis's Incomparable, Northern Greening, Dumelow's Seedling, Striped Beefing, and Kentish Filbasket. Second, Mr. Brush, Pinner; third, Mr. A. Parsons, Fairlawn, Turnham Green. For Dumelow's Seedling, first came Mr. E. Freeman, Chilton, Thame; second, Mr. G. Bush, High Grove, Pinner; third, Mr. W. Holder, Springfield, Reading. For Alfriston, Mr. Ross, gardener to C. Eyre, Esq., Welford Park, Newbury, was first with remarkably fine specimens; almost equally good were the second from Mr. Pluck; whilst Mr. Thomas, also of Jersey, was third. Of Emperor Alexander fine specimens from Mr. Ford were first; Mr. W. Pratt, Little Gaddesden, being second; and Mr. Thomas third with comparatively small but highly-coloured fruit. The best dish of Mère de Ménage came from Mr. T. Bray, gardener to Mrs. A. Leybourne, Popham, Littlecote; Mr. Wildsmith, Heckfield, being second; and Mr. J. Walker, Thame, third. For Reimette du Canada Mr. C. Haycock was first with very large fruit; second, Mr. Fraser, Bromley; and third, Mr. Gardiner, Stratford-on-Avon. Mr. Pluck, 38, New Street, Jersey, exhibited a dish in which one of the fruit had evidently been plucked. In the interest of the exhibitor we would urge that the public should be informed of the way in which this came about. For the best dish of any other kitchen Apple Mr. Bannister was first, Mr. Walker second, with Blenheim, and Mr. F. Miller third, the last with Beauty of Kent. For the heaviest dish of six Mr. C. Haycock, gardener to R. Leigh, Esq., was first with Belle Dubois, 5½ lbs.; Mr. Bailey, Cecil House, Wimbledon, second with Reimette du Canada, 5 lbs. 11 ozs.; and Mr. E. Smith third with Lord Suffield.

In Class 48, Dessert Pears, eighteen varieties, six fruits of each, there was a most excellent show. The first prize was awarded to Mr. F. Langlois, Ronge Bouillon, St. Helier's, Jersey; the specimens were extraordinary for size and colour. Second Mr. Pluck, 38, New Street, Jersey, who ran the former exhibitor very closely. In Class 49, six dishes, six fruits of each, the first prize fell to Mr. Thomas, 22, Burrard Street, Jersey; the second to Mr. G. Miles, gardener to Lord Carington, Wycombe Abbey, Bucks, for a clean finely-coloured lot. In three varieties, six fruits of each, eighty dishes were shown. Mr. Thomas, of Jersey, was again first with some extraordinary specimens. The second prize fell to Mr. Pluck, 38, New Street, Jersey; the third to Mr. J. Tivey, gardener to P. Gossett, Esq., Bagot, St. Saviour's, Jersey.

For six fruits of Marie Louise the prizes went to Mr. Clark, gardener to the Rev. A. Stackpoole, whose fruit was very fine; the other awards to Mr. Stephenson and Mr. Wildsmith. Of Glon Morcean some remarkable specimens were shown, especially those by Mr. G. Thomas, of Jersey; and Mr. Parsons for large, well-coloured fruit; and third Mr. W. Cole, gardener to W. K. Wigram, Esq., Twickenham. The last-named exhibitor was also first for Duchesse d'Angoulême with splendid specimens, Mr. Pluck being second, and Mr. Sage, Ashridge, third, and a very good third. Doyenné du Comice was represented by splendid fruit from Mr. Thomas, Mr. Pluck and Mr. Garland, Killerton, having it also very good. Of Doyenné Boussoch, the best dish came from Mr. Thomas, Mr. Herrington, gardener to J. Price, Esq., Clapham Road, being second. For Van Mons Léon Leclerc, Mr. O. Goldsmith, gardener to Sir W. Farguher, Bart., stood first, and Mr. Pluck second. Chamoncel weighing 9 lbs. the dish, exhibited by Mr. Thomas, came first in the class for any other dessert kind.

Of Catillac, very large fruit from Mr. Pluck took the first place; Mr. Tivey, also of Jersey, being second with six weighing 12½ lbs.; whilst Mr. Ross was third with a half-dozen weighing 8 lbs. 9 ozs., the heaviest of which was 1 lb. 11 ozs. For Uvedale's St. Germain the awards went to Mr. Scott, Merriott, Mr. Pluck, and Mr. Thomas, for dishes weighing from 13 lbs. 5 ozs. to 14 lbs. 3 ozs. But these weights were far surpassed in the class for the six heaviest Pears of any variety, the Rev. T. C. Bréhat showing half a dozen of Uvedale's St. Germain weighing 19 lbs. 13½ ozs., Mr. Thomas a dish of 14 lbs. 13 ozs.; whilst Mr. Langlois, who was second, had a dish still heavier.

Three sticks of White Celery. First came Mr. C. Osman, South Metropolitan Schools, Sutton, Surrey, with Sandringham White. Second Mr. W. Pragnell, gardener to G. D. Digby, Esq., Sherborne Castle, Dorset; this is some mistake, as the second-prize lot ought to have been placed first. Third for white Mr. G. Woodman, gardener to W. Gillon, Esq., Lillystone Hall, Ingatstone, Essex. For three heads of Red Celery. First Mr. Woodman, with the Leicester Red, very good. Second Mr. Lidgard, Albion Road, Hammersmith, with Manchester Red. Third Mr. Parsons, Danesbury Park, Welwyn, Leicester Red.

Class 65. Collection of eighteen sorts of vegetables, for prizes offered by Messrs. Carter & Co.; three competitors. First Mr. W. Pragnell, with a very good, well-grown collection, including James's Intermediate Carrot, fine Snowball Turnips, Maltese Parsnips, Giant Rocca Onions, Model Potatoes, Carter's Dwarf

Mammoth Cauliflowers, fine Drumhead Savoy, Sandringham Celery, &c. Second Mr. C. Osman, with a very meritorious collection. Third Mr. D. Lumaden, Bloxham Hall, Sleaford, with, among other things, some well-grown Cardoons, Telegraph Cucumbers, and Lettuces.

Class 66, for ten dishes of Potatoes, also offered by Messrs. Carter & Co. First Mr. D. Lumaden with good samples of Early Vermont, Ashtop Pluke, Carter's Main Crop, Red-skin Flourball, and others. Second Mr. Miller, gardener to J. F. Friend, Esq., Margate, with many similar varieties. Third Mr. Osman, his sorts being rather small. Messrs. Carter also showed a collection of sixty-five sorts of Potatoes, not for competition, which made a grand show.

From the Society's gardens, Chiswick, came an equally meritorious collection, but much larger in number, being 110 varieties of all those grown at Chiswick. The Society also contributed a good collection of both red and white Celery, consisting of twenty-four varieties of white and the same number of the red kinds.

FRUIT COMMITTEE.—Alfred Smee, Esq., F.R.S., in the chair. Messrs. James Carter & Co. sent Fern-leaved Parsley, a variety with very finely-cut leaflets, differing from curled Parsley in this respect, that while the latter has the leaflets very much curled, the former are not curled but finely divided. They also exhibited a large collection of Cabbages and Beets, to which cultural commendations were respectively awarded. Messrs. Veitch & Sons exhibited a fine collection of Celery admirably grown, to which a cultural commendation was awarded.

Mr. Gilbert, of Burghley, sent fruit of a scarlet-fruited Egg Plant, which from its colour appears to be very ornamental. They are of the size of a medium-sized Tomato. Mr. P. Bennett, gardener to W. W. Burrell, Esq., Ockenden House, Cuckfield, sent roots of the White China Radish, of cylindrical shape, 4 to 6 inches long and 3 in diameter. Messrs. Cutbush & Son, Highgate, sent a new Onion called Oscar, also Bedfordshire Champion, White Globe, and Nuneham Park. They were all excellent examples and fine bulbs. Oscar was much admired as a fine Onion, and the Committee requested that it be shown at the December meeting with White Intermediate. Mr. Cramb, of Tortworth Gardens, sent a Savoy called King Coffee, a small compact dwarf Savoy. Mr. H. Smythe, Dyke Road, Brighton, sent a white Celery called Princess Royal, which proved to be the same as Incomparable White.

Mr. William Earley, of Valentines, exhibited branches of Earley's November Plum, which is in reality a large Bullace, and bearing abundantly like the Bullace. Mr. John Webster, Gordon Castle Gardens, N.B., sent a seedling Plum similar to Washington, but very late. It is called November Gage, and was raised from Reine Claude de Bavay. He also sent Aurora, a purple Plum raised from Ickworth Impératrice. It is a clingstone, and the fruit were shrivelled and rather sweet. Mr. Pearson, of Chilwell, exhibited fine bunches of his Golden Queen Grape, which received a first-class certificate last year. It was deliciously flavoured. He also exhibited Chilwell Alicante, a large-bunched black Grape with a long oval berry like Morocco, and also another seedling from the same origin as Golden Queen called Mrs. Pearson. The berries are not so long as Golden Queen. They are of a fine golden colour, and rich in flavour. It was awarded a first-class certificate.

Mr. Bradley, of Elton Manor, near Bingham, sent a seedling Pear, which is so like Comte de Lamy that the Committee passed it. Mr. Coles, The Chestnuts, Twickenham, sent a fine dish of Knight's Monarch. Mr. Robert Donne, Odcombe, Ilminster, sent a seedling Pear, very much like Bezi Vaet. It has the fault of rotting at the core before it ripens on the surface. The same gentleman sent a seedling Apple raised between Ribston Pippin and Nonpareil, a good Apple but not superior to either of the parents. Mr. James McDonald, nurseryman, Chichester, sent a large Pear called Gloria Mundi. The fruit is of enormous size, 5½ inches long, and the same in width, turbinate. It was referred to the January meeting, till it would be ripe; we believe it to be a fine specimen of Catillac. Henry Webb, Esq., Redstone Manor, Redhill, sent a dish of Prince Albert Pear, the flavour of which was very fine. Mr. J. A. Wright, Stone Grove Nursery, Edgware, sent a dish of a large seedling kitchen Apple, called Mrs. Woodbridge. It was ordered to be cooked and a report to be made at the next meeting. He also sent another seedling called Harrow Pippin, a pretty Apple of good flavour. Mr. Gilbert, of Burghley Gardens, sent a very showy Apple called Beauty of Barnack. It is finely striped like Beauty of Kent. It has a tender flesh, is brisk in flavour, and a good cooking Apple. Mr. William Gardiner, of Lower Easington Park, Stratford-on-Avon, sent a large seedling Apple, with tender flesh and mild flavour. Mr. Thomas Baines, Southgate, sent a dish of Proctor's Seedling, a culinary Apple, grown in the north of England, which he stated is a fair dessert Apple in February. They were ordered to be kept till they are ripe. Mr. Haycock, Barham Court, Maidstone, sent a dish of fine specimens of Calville Blanche, which received a first-class cer-

tificate. Mr. Fenn, The Rectory, Woodstock, sent specimens of Blenheim Pippin, Cox's Orange Pippin, and Ribston Pippin.

FLORAL COMMITTEE.—Mr. J. Fraser in the chair. On this occasion few subjects were shown. First-class certificates were awarded to Mr. Williams, of Holloway, for *Anthurium Williamsii*, which has been before described; to Messrs. Veitch for Japanese *Chrysanthemums* Golden Thread, orange brown, Cosack, and Duchess of Edinburgh. A cultural commendation was awarded to Mr. W. Smith, gardener to C. Lane, Esq., Henley, for a fine specimen of *Vanda cærulea* with five fine apikea.

PELARGONIUM SOCIETY.

A MEETING of the Pelargonium Society was held at South Kensington yesterday, Henry Webb, Esq., in the chair. The following additional prizes were offered:—Six Ornamental Cape Pelargoniums, distinct, £3, £2. For the best hybrid Pelargonium of distinct character, £2, £1. Stand of twenty-four cut blooms, single trusses (open), £2, £1; stand of twelve (amateurs), £2, £1. The Judges may in their discretion, subject to the approval of the Committee, award a prize or prizes to any exhibits which may not be provided for in the schedule, and worthy of particular notice.

PORTRAITS OF PLANTS, FLOWERS, AND FRUITS.

TACCA ARTOCARPIFOLIA. *Nat. ord., Taccaceæ. Linn., Hexandria Monogynia.*—Flowers brown and green. "It is a native of Madagascar and Johanna Islands, whence there are excellent specimens in the Hookerian Herbarium, from Mr. Justice Blackburn, Dr. Lyall, and W. T. Gerrard. Its nearest ally is the well-known *T. pinnatifida*, which, though one of the most widely cultivated and most useful plants in the Pacific Islands, has never yet been figured in any English botanical work; nor, as far as we know, ever been introduced into this country. The tubers of *T. pinnatifida* afford the South Sea arrowroot, said to be the best of all in cases of dysentery, and its starch is a favorite article of diet in the shape of puddings and cakes.

"The *T. artocarpifolia* has a tuberous root, and is, no doubt, as full of starch and as wholesome as *T. pinnatifida*. It flowered in the Royal Gardens in May of the present year, from roots received from Mr. Wilson Saunders in 1872."—(*Bot. Mag.*, t. 6124.)

POGONIA DISCOLOR. *Nat. ord., Orchidaceæ. Linn., Gynandria Monandria.*—Flowers white; leaves dark green, with pale blue-green blotches. "The species of *Pogonia* have usually little to recommend them for horticultural purposes; but to this there are exceptions, especially amongst the Indian species, some of which that have been cultivated at Kew present, like that here figured, beautifully coloured and marked leaves that persist for many weeks, and attract the attention of the most ordinary observer. All have tuberous roots, often formed at the end of subterranean cylindric fibres. It is not easy so to manage their culture as that the leaves, flowers, and new tubers should be successfully formed, and upon this their continuance under cultivation depends. The present is closely allied to the common *P. plicata* of Bengal, which has a rose-coloured lip.

"*Pogonia discolor* is a native of damp forests in the mountain region of Western Java, where it flowers in November. The specimen here figured was flowered by Mr. Bullin in February last, and the leaf was fully formed in the following June."—(*Ibid.*, t. 6125.)

LILIU MACULATUM. *Nat. ord., Liliaceæ. Linn., Hexandria Monogynia.*—Flowers orange, with dark brown spots. "A native of Kamtschatka, the Kurile and Sachalin Islands, Japan, and South-eastern Manchuria, whence it was introduced into the Russian Imperial Botanical Gardens, and we have dried specimens from Sitka on the American coast.

"According to Maximovicz (in "*Gartenflora*"), there are two varieties of it: one, with a scented orange-yellow flower, which came from Victoria Sound; the other, with red inodorous flowers, is found in Japan and Kamtschatka, is figured by Regel in the "*Gartenflora*." The leaves of both varieties vary extremely, both as to the number of whorls, the number in each whorl, and in length and breadth.

"I am indebted to Mr. G. F. Wilson, F.R.S., of Weybridge Heath, for the specimen figured, the bulb of which he purchased at a sale of Japan Lilies in London, and which flowered in June of the present year. I have also seen a specimen flowered by Mr. W. Saunders, F.R.S., in 1871."—(*Ibid.*, t. 6126.)

SCORZONERA UNULATA. *Nat. ord., Compositæ. Linn., Syngenesia æqualis.*—Flowers pink. "Brought by Mr. Maw from Algeria, where he recognised it as apparently the same with a plant we found between Tangiera and Tetuan in Morocco. It flowered in July, and had a very handsome appearance."—(*Ibid.*, t. 6127.)

CITRUS AURANTIUM VAR. JAPONICA. *Nat. ord., Rutaceæ. Linn., Polyadelphia Polyandria.*—"This well-known ingredient in Chinese sweetmeats, according to Siebold, is nowhere found wild in Japan; this author says that, in common with all other species and varieties of *Citrus*, it has been introduced into the island from China or India; also that it is extensively cultivated under two varieties, one with globose, the other with oval fruit, which latter is rare. He adds, that the agreeable acid of the juice, flavoured by the aroma of the rind, renders the fruit very pleasant, but that it yields only a transient refreshment, for it leaves a burning after-taste in the mouth."—(*Ibid.*, t. 6128.)

SOME OF THE VEGETABLE PRODUCTS OF CEYLON.—No. 1.

HAVING dealt with the principal products of Ceylon—viz., Cinnamon, the Cocoa-nut, and Coffee, in the pages of the "*Food Journal*," it is my intention in the present paper to allude to those other productions which do not as yet figure among the exports of the colony, save in some instances to a very limited extent.

Coffee is the great staple of the colony, and Ceylon, I fancy, exports more Coffee than the whole of the West Indian colonies; but, as it has been well remarked, seldom can any good reason be offered why land in any country should be exclusively devoted to the raising of one particular description of produce. A long experience has shown that the contrary practice is beneficial to the temperate regions of Europe; and although by reason of the greater energy of vegetation within the tropics the system so indispensable in Europe may there to a certain extent be disregarded, this offers no argument against the adoption of that system, since by it means a still greater power of production may be called into action.

TEA.—In 1867 Mr. Arthur Morice, a Coffee proprietor in Ceylon, and a gentleman every way competent for the task, was entrusted by the Government of Ceylon, at the instance of the Planters' Association of that colony, to report on the Tea districts of Continental India, with the ultimate view of ascertaining whether Tea could be successfully grown in Ceylon if fairly tried with the best system of manipulation.

There had been some previous experiments in Tea cultivation at Newera Ellia by a former Governor of Ceylon, Mr. Stewart Mackenzie, and at Pussilawa, both situated within the mountain zone of the central province. Both were on a small scale. The first was not successful; in the latter case the plants were healthy, but no commercial success was achieved, the gentleman who owned the land on which the plants were growing carrying out the experiment as an amusement, his attention being absorbed in the cultivation of Coffee on a very extensive scale.

Mr. Morice visited the Tea districts of Assam, Deyra Dhoow, Kengra, Coorg, and the Neilgherries, and submitted on his return to Ceylon a very exhaustive report to the Local Government. Mr. Morice was of opinion that every probability existed of Tea being successfully grown in Ceylon if only fairly tried with the best plants and with the best system of manipulation. He remarked that in Assam and in the Himalayas, where there is a constant struggle with grass going on, at least one coolie per acre during crop season was considered necessary; and from the system of imported labour in Assam the full complement has to be kept on all the year round; and, indeed, to do full justice during the plucking season not only to that work but to the weeding, one man and a half per acre would probably in most cases be necessary. In Ceylon, with a plantation free of weeds and in full bearing, it is probable during crop one man per acre, including every one, might be the utmost required; and out of crop a very small force of women and children would do all the weeding and pruning necessary. Tea in Ceylon would have the advantage of being in crop when the majority of Coffee estates were not, and *vice versa*, and thus labour might be made available for both cultivations without their interfering with each other. The seasons, therefore, as the respective crops came in, would be at no time in collision; on the contrary, an advantage of no mean importance would be derived in dealing with imported labour, from

having facilities afforded for finding employment for surplus labour without losing it altogether during the intervals between the crops of both cultivations.

If Malabar labour be not forthcoming, Chinese can, doubtless, be obtained if a careful system of emigration be carried out, and emigrants be introduced from the pure agricultural districts of China, and not drawn from the lowest strata of the cities of that empire.

In the "Food Journal" of November, 1872, it is stated that Tea has been already produced in Ceylon of so excellent a quality as to be pronounced worth 3s. per pound on the spot.

The present Governor of Ceylon (The Right Hon. W. H. Gregory), in his speech to the Legislative Council, quoted in the "Food Journal" of December, 1872, takes, it would appear, a very favourable view of the prospects of Ceylon as a Tea-producing country. The right hon. gentleman with truth considers that it will be an important adjunct to Coffee, as it will enable the planter to find continuous work for his labourers (the great desideratum), and will bring into cultivation large tracts of land which are generally considered to be too high for Coffee. In a few years we may reasonably count upon an export of some quantity of good Tea from Ceylon, and which, probably, like the Tea from Continental India, will reach the consumer comparatively pure and unadulterated. It is well known that much of the Chinese Tea is largely adulterated before it leaves China, passing, as it does, through so many native hands prior to its shipment for Europe.

When in Ceylon I understood that in 1778, when the Dutch possessed the maritime portion of the island, a Tea plant was discovered in the Margam Patoe of the southern province. Its leaves were ordered to be dried and duly prepared by Mr. Angelbeck, the then (Dutch) Collector of the province, and sold under the name of Badegiri Tea on account of the Dutch Government, at the rate of 6s. the pound. A note is now before me from General Walker, no mean botanist, who was for some years in Ceylon (he died in India in command of a division there), forwarding to me some leaves of the said Tea; but a plant can no more be known by its mere leaves than a man by his coat. As, however, its cultivation was not extended, it is to be presumed that the after-importation of Tea from China, at a comparatively low rate as to cost, operated prejudicially to any attempt to grow it as an article of local consumption or of export.

In the report of the Director (Dr. Thwaites) of the Royal Botanic Gardens in Ceylon for the current year, it is stated that the cultivation of the Assam hybrid variety of Tea is getting rapidly into favour, and but for the comparatively small number of plants and seeds procurable in the island, added to the difficulty of obtaining from India really good seeds for germinating, Tea cultivation would advance more expeditiously here. There cannot be the least doubt, however, that these difficulties will not long operate as a check, the climate of the island being so admirably adapted for Tea-growing. The Assam hybrid variety grows equally well at Pèradeniya and at Hakgala, and the plantations in both places are being considerably added to, in order that we may be prepared by-and-by to issue fresh seeds in large quantity. Of the ordinary Bohea Tea of China good supplies at a very moderate charge are obtainable from both gardens. Dr. Thwaites strongly recommends trials being made of this hardy plant on abandoned Coffee estates rather than that weeds should be allowed to take possession of the land. There can hardly be a doubt that the expense of such a step would be more than repaid if Tea is one day to become, as it most probably will, one of the most important staple products of the island.

RICE.—The cultivation is gradually extending under the judicious system introduced by the Island Government, and energetically carried out by its local agents, in reference to the repair of some of the ancient tanks and the construction of new irrigation works, and in the eastern province, especially, the results have been in the highest degree satisfactory, and there is reason to hope that the large sum hitherto annually paid by Ceylon to Continental India for grain supplies will ere long be very considerably reduced and finally extinguished, and the next phase in the career of Ceylon may find her an exporter of grain. By the restoration of ancient tanks, and by additional reservoirs for storing water being constructed, which the modern appliances of science render of comparatively easy formation, such a result may be arrived at, at no very remote period.

The supply of water would also be invaluable to the health

of both the inhabitants and their cattle. At present it is notorious that in those districts of Ceylon where the old tanks are situated, and where additional dams, &c., are required, the water is very unwholesome, and most inimical to the health of both man and beast. In works of irrigation the executive have the native with them most thoroughly, and that is half the battle, especially in a tropical country. He knows full well the inestimable advantage of having a command of that element in reference to his agricultural operations. All that is wanted is the loan of capital and European overlooking to insure success, and Government, as is the case at present, is far more than recouping itself by the enhanced value of the raw material (the land) and the taxation on its produce, while a lively sense of favours conferred is felt by the governed, and contentment under English rule is materially strengthened.

In the report of the Irrigation Committee of the Legislative Council it is stated that the Blue-book returns show that the annual production of Paddy (unhusked Rice) is about seven millions of bushels. The average yield is as nearly as possible sevenfold, and that according to ancient inscriptions at Poloneura (one of the ancient cities of Ceylon, and situated in a now most deserted part of the island), the yield of Rice land in Ceylon in the twelfth century was seventeen and a half-fold. The difference between the present and former yield is therefore ten and a half millions of bushels, equal to five millions of bushels of Rice, or one million bushels more than the yearly import of that grain. The question naturally arises whether by means of irrigation, supplemented by better seed and improved processes, the former yield of the soil may be to a great extent recovered, and thus enable Ceylon to reduce her dependance on foreign supplies to a minimum. The yield in Madras and Bengal is twenty to thirtyfold, in Burmah forty to fiftyfold, and in the latter case entirely without manure. The Committee were further of opinion that great as would be the benefit conferred on agriculture by an improved system of irrigation, a part only of its good results would be experienced unless a change of seed be resorted to and maintained. The rotation of seed could be easily carried out, and its effects would be so manifest, and in such a short time, that there should be no difficulty in inducing its adoption by the natives.

The Committee do not share in the opinion held by many persons, that the natives of Ceylon, in common with other orientals, are opposed to change in their agricultural operations, and that it would be in vain to endeavour to introduce amongst them any improvements in the cultivation of Rice. Judging from what has been done in the cultivation of other Ceylon produce, as well as from what has taken place among the ryots of Continental India, this opinion appears to be erroneous. In a paper on the food resources of Ceylon, published in the "Food Journal" of June 1871, I alluded to a legislative enactment which I had the privilege, as a Government Member of the Legislative Council, to assist in framing, and having for its aim the renewal and enforcement of the ancient customs regulating the irrigation and cultivation of Rice lands. The machinery of this law has been since extended and otherwise improved in those particulars which, in its practical working, were shown to be required, and has thereby given a great and steady impetus to the cultivation of Rice.—E. RAWDON POWER, *Ceylon Civil Service (Retired), Tenby, South Wales.*

NOVELTIES IN THE ROYAL GARDENS, KEW.

BROWNEA COCCINEA is flowering in house No. 1, and, it is needless to say, is very ornamental. It should be seen from beneath, as the fascicles of flowers hang down. Young plants do not flower freely, and thus we account for its not being more generally grown as a stove plant. Old plants when fully in bloom are very handsome, and are well worth the necessary amount of space. The soil should consist of loam and peat, with a moderate amount of river sand; the first may predominate if free and open. When growing a free supply of moisture to the air is beneficial. Seeds are very often dead when received from abroad in the ordinary way, but if packed in moss or soil very slightly damp they are sure to arrive in good condition. Cuttings are rooted with little difficulty, selecting small shoots not quite ripe. It is a native of Venezuela. This is the freest-blooming of the genus. *B. grandiceps*

* Ingredients in 1 lb. of Rice:—Water, 2½ ozs.; gluten, 1 oz.; starch, 11.8-10 ozs.; sugar, 1-16 oz.; gum, 1-5 oz.; fat or oil, ½ oz.; woody fibre ½ oz.; ashes, 1-16 oz. Carbon in 1 lb. of the above substances, 6 ozs.

is worth cultivation for the great beauty of its leaves when young; they are light green, beautifully mottled with brown, and droop gracefully: these characteristics are retained for a considerable time. It is rather a vigorous grower, but will submit to cutting back, though it should not be done oftener than is necessary, as the stronger the growth the finer the young leaves. This is a native of the Caraccas. *Brownea* is closely allied to *Amherstia*, of which in this house there is a flourishing specimen.

Dahlia imperialis is flowering finely among the Cycads in the Palm house, and is apparently better with the warmth here afforded than with greenhouse temperature. It is a magnificent ornament for large structures where it can be seen to advantage, though it should be remembered that by grafting on liliputian kinds a dwarfed result has been obtained, with the addition of a finer pyramidal habit, in which condition it is more valuable. This we remark, as from its great size it appears to be one of those things that, having created a sensation, may become neglected, and in time be lost to cultivation. It is possible that the liliputian kinds only, used as stocks, will produce the desired result. In one instance observed in the Royal Gardens a strong-growing yellow-flowering kind was used, and no effect on the growth of the scion could be detected. During summer these plants may be plunged out of doors in a moderately shaded place, be potted in rich porous soil, without being allowed to suffer for want of pot room, and have a free supply of water.

PELARGONIUMS AND GERANIUMS.

I CANNOT help thinking that one of the effects of the new Pelargonium Society will be to convince us that Pelargonium and Geranium are not distinct species [genera]. I take it that if a plant raised between two supposed distinct species prove infertile it may be considered a mule, and goes to prove its parents are distinct, whilst if it prove fertile it proves the contrary. For several years E. J. Lowe, Esq., of Highfield, Nottingham, has been trying to raise a blue Geranium by crossing the *Geranium sanguineum* with Madame Vaucher zonal Pelargonium. Many of these seedlings have produced red, rose, and white flowers, some with curious foliage, but few would believe they were really the result of the cross attempted. The only thing which made me doubt was I could not imagine, if they were not so raised, how such queer things could be produced from Madame Vaucher. He has just sent me two plants in flower much alike in every respect, and I think no one who sees them can doubt that they are really raised between the hedge Geranium and a zonal. The foliage, the way the flower stalks grow, and particularly the colour and veining of the petals, convince me at any rate that such is the case. Having often laughed with and at Mr. Lowe over these green seedlings of his, I hasten to humbly "eat the Leek," and declare myself a convert. If I live I will bring one of them to the Society's first show if in flower, and then it can be examined by the savans, and we shall hear what they say about it.

For the information of the curious I may say the flowers are blue pink (some see blue in them), and that the shape of the flowers are the exact opposite of what a florist would consider perfection, the petals being long and narrow, reminding one as much of the shape of a *Pancreatum* as of a round zonal Geranium. Though the plant will be despised by the florist, it will be admired by the lovers of curious things, for when well flowered it is really pretty as well as curious. Mr. Lowe thinks it a mule; I do not much doubt being able to seed it. Time will show which is right.—J. R. PEARSON, *Chilwell*.

MILDEWED ROSES.

For the last two years my Roses have suffered much from mildew, some more than others, but all of them—those under glass, those massed in a quarter-acre bed, those sprinkled over the garden. The soil is a light loam with a bed of marl from 2 to 3 feet below the surface, well drained four years ago.

The Roses have been well mulched from the stable and pigsties, top-dressed for the winter and again for the second bloom, with occasional real waterings with a little guano when the weather has been dry. The strange thing is, that in spite of it all the bloom has not been amiss, though I literally cannot find clean foliage to go with it. I think sulphur freely used checked it slightly.

I purpose this winter clearing the ground, digging, in hopes of burying the germs, and then replanting, having pruned

and painted thoroughly every stock with boiled sulphur and lime.—R. T. F.

[The foregoing was sent to our correspondent, the Rev. C. P. Peach, and accidentally mislaid with other papers. He says—As the question is of importance I should like to ask the advice of other Rose-growers. Not knowing the exact position of the Rosea it is difficult to give positive advice. Mildew is often caused by a want of circulation of air, and too much mulching and top-dressing will often bring the roots to the surface, and they then suffer from changes from moist to dry. A light loam requires manure deep at the roots. I do not think the germs of mildew exist in the soil; like all minute fungus spores, they are floating about in the air ready to germinate when they find a congenial bed, and any sudden check given to foliage in a growing state will often give a proper nidus for the germs.]

THE RASPBERRY.

THIS past been an unfavourable season for the Raspberry. The crop generally has been very limited; a better show of blossom could not have been wished, and the fruit set well; but the hot dry weather supervened, and entirely checked the growth of the plant and the swelling of the fruit. The consequence has been, that generally only one good gathering was obtained, except in places very favourably situated for the cultivation of this very desirable fruit.

The Raspberry, among small fruits, is next in demand to the Strawberry, indispensable in many ways in the kitchen; and the order for the usual quantity is always imperative with the housekeeper. The Raspberry is a moisture-loving plant, found wild plentifully in the the northern counties in moist and shady places on the outskirts of woods, associated with Foxgloves and certain varieties of the Dog Rose, which circumstance gives a clue to its cultivation. The best plantation of Raspberries we ever remember to have seen, occupied a low quarter somewhat shaded by large trees at some little distance; the soil moist, and a deep very sandy loam resting on pure sand. The canes were extremely luxuriant, running up straight and strong. Such a situation should always be chosen, if possible, for a plantation. A north border answers very well in the south, but is too shady in the north. The space behind north walls, however, is too limited and valuable for summer crops. Where there is no choice, the best must be made of any open quarter at command; and much can be effected by management.

The first consideration is well trenching the soil to the depth of 2 feet at least, for although the Raspberry is a shallow-rooting plant, yet deep trenching is advisable to aerate the soil and make the surface sweet. If the land is at all heavy, a liberal dressing must be given of any material which will have the effect of lightening it—such as lime rubbish, burnt clay, sand, leaf mould. We have used sifted coal ashes, mixed with manure bountifully, on heavy clay with the best effect; and with annual top-dressings of the same the roots will soon abandon the clay, and spread themselves among the top-dressing like a mat.

Although the Raspberry will make very luxuriant growth under favourable circumstances, we do not think it advisable, as with other fruits, to give it much room; planting in rows 4 feet apart each way will be sufficient. The roots do not wander far from the plant. The plants being close shade the soil and protect the roots from the heat of the sun; and the annual top-dressing will maintain the plants in vigour better than a larger space of ground could be supposed to do. We annually wheel in amongst our Raspberries, and other small bush fruits, unlimited quantities of short grass from the machine-mowings of the lawns; it shades and keeps the soil moist, prevents the growth of weeds—for it must be remembered that this grass contains no seeds of weeds—and finally it is dug into the ground with more manure in winter.

There are various plans adopted for the support of Raspberry canes; but the best we have tried is training them fan-shaped to wires stretched along the rows espalier fashion, strained from posts at either end, the fruiting canes to be trained right and left, leaving the centre over the stools open, so as to give room for the young canes in summer as they grow.

Bending the canes over rainbow fashion, and tying the tops together is often practised, and has the advantage of not requiring any stakes; but the plan gives greater facilities to the birds to rest on them when the fruit is ripe; and bundling the

canes together is always objectionable. Tying the canes to upright stakes in bundles is also objectionable, though the simplest plan, as there is not sufficient room for the development of the young canes and the fruit-bearing shoots together. This bundling system is not favourable to a proper circulation of air among the ripening fruit. The espalier system is much to be preferred, as it allows room for the fruiting branches to extend right and left, they receive an abundant circulation of air, the young canes have room to grow, and finally, the fruit can be gathered with more facility. The best Raspberries with which we are acquainted are the Red and White Antwerp, the Fastolf, and the Sweet White Antwerp.

The autumn Raspberries—October Red and Yellow—unlike the common summer kinds, are of a drooping, more straggling habit, and partake more of the habit of the Blackberry or Bramble. They require a dry warm situation, in order that they may ripen off their fruit at a season when there are much rain and occasional frosts. They are more slender in habit than most of the summer sorts, and like the Bramble fruit on the current year's growth from the stool; they should therefore be entirely cut over early in spring. The Bramble finds support by spreading itself over the hedgerows, or any support which may be near. The autumn Raspberries must also have some support, else the fruit gets chafed and broken by the wind. A good plan is to drive in three strong stakes round each stool, and tie a wire or wooden hoop to them horizontally; spread out the canes of the Raspberry, regulate and tie them to the hoop, letting them hang over to the outside. All weak growths must be pulled up in summer, leaving six or eight of the strongest canes. It must not be expected, however, that these autumn Raspberries are equal in flavour to the summer varieties, nor are they so large as the Red and Yellow Antwerp. They are, however, very prolific, and come in to help the dessert and the cook at a time when small fruits are scarce.

Raspberries will occupy the same situation for many years in succession, and yield good crops where the soil and climate are favourable to them; but in many instances, especially on dry soils, it will be necessary to renew frequently, if strong growth is to be maintained, and consequently crops of fine large fruit. The Raspberry has a tendency also to spread, and the stools get ragged and worn out. To form new plantations, the strongest suckers should be carefully lifted and transplanted into nursery lines for a season, to gain strength and make roots and buds at the bottom; the following season, when ground has been trenched and prepared for them, they may be finally planted as before indicated. Old plantations will be much improved by having the soil dug away from around the stools up to the points of the roots, and also shaking away the soil partly from the roots, and substituting fresh rich soil, spreading the roots well out in it, and afterwards well mulching with rotten dung.

The canes of Raspberries should not be pruned or shortened until the wood is ripened and the foliage fallen; and there should be no deep digging between the rows, so as in any way to injure the roots.—(*The Gardener.*)

FLOWERS FOR OUR BORDERS.—No. 43.

WULFENIA CARINTHICA—CARINTHIAN WULFENIA.

It is not uninteresting to note that the immense variety in form, size, and colour which obtains among the members of the vegetable kingdom extends also to their distribution. Thus we find that while some are almost ubiquitous, and others are spread over wide areas of the earth's surface, many are restricted to a few localities, and occasionally to a single spot. To the latter class belongs the subject of our illustration, it being found only, so far as is yet known, upon one mountain in Carinthia.

Of the numerous alpine plants now at the disposal of the lover of these floral gems there are not many possessing greater claim to attention than this beautiful little plant. To some of our readers the *Wulfenia carinthica* is probably an "old familiar face;" but it is much less extensively grown than might, perhaps, be inferred from the mere date of its introduction. In the front ranks of the mixed border its spikes of bright blue flowers produce a charming effect, especially when grown, as it may be, in a good patch, or if several plants of it are grouped together. It may be termed a spring flower, for it usually commences blossoming in May, and continues in bloom until July.

The *Wulfenia carinthica* is a perennial plant of dwarf habit,

its foliage, which is all radical, not exceeding 6 inches; the flower-scapes, however, often grow to the height of from 12 to 16 inches or more before the blossoms are all expanded. The leaves are obovate, blunt, with doubly crenate margins, and when full grown are spread flat on the ground; the small leaflets attached to the flower-scapes are more acute and sessile, with their margins rolled back.

The spike of flowers is at first drooping, but afterwards becomes nearly erect, though there is generally a slight inclination to one side. The flowers are bright blue, with a yellow throat, on short peduncles, closely arranged, and are somewhat remarkable for their oblique position.



Fig. 117.—*Wulfenia carinthica*.

From the character of its natural habitat it will be readily inferred that the *Wulfenia* is an excellent rock plant, but it will not endure full exposure to sunshine, neither will it flourish if allowed to suffer from drought; a partially-shaded situation should therefore be allotted to it. In the border it will succeed in any light rich soil free from stagnant moisture, which is injurious to it, especially in winter. In severe weather it should be covered with an empty flower pot, and in long-continued rains in winter the same precaution may be adopted with great advantage. In unfavourable localities it may even be advisable to pot it in autumn, and preserve it through the winter in a cold frame or turf pit, though this precaution will hardly be necessary south of the Trent. It may be increased by division in spring and autumn, and also by seeds, which it sometimes ripens; if a few of these are saved annually its protection will then be a matter of less importance, as young plants are readily raised from seed.—(*W. Thompson's English Flower Garden, Revised by the Author.*)

THE HORSE AND SWEET CHESTNUTS.

In an extract from "The Household Guide," in your issue for October 15, page 346, there are remarks on the Horse Chestnut which certainly are at variance with the opinion of most, if not all, who have had anything to do with such trees, more especially the recommendation for the fruit to be given to cows to increase the amount of milk; for most certainly in all places I am acquainted with the injury done to the milk of cows who partake of Horse Chestnuts is of so serious a kind as to unfit the butter for all except the very commonest of purposes. We all know, or rather I ought to say all country people living where Horse Chestnuts abound know full well, the acrid bitter taste of the otherwise tempting fruit, and we also know how quickly milk is acted upon and partakes of the

flavour of the food the cow has to eat. Cabbages and Turnips are very distasteful, and their absence from the food given to cows is often insisted upon by all who are judges of butter, yet they are tasteless compared with Horse Chestnuts; but that cows eat these I have the best of all proof, and having once tasted them they seem to get a hankering after them, and if allowed to partake of them in quantity, I question very much if the milk would bear the test of the analyst. Certainly the merest tyro in acquaintance with milk would condemn it. Having a good many Horse Chestnut trees scattered about our pasture lands, we have been in the habit of having the fruit picked up every day for some years, but latterly have discontinued the practice, the crop not being heavy until this year. When the cows have had access to the fields partly overhung with Horse Chestnut trees they have eaten of the forbidden fruit, and the consequence is the butter, I am told, is only fit to melt-up for kitchen use. So much for that part of the Horse Chestnut fruit; but how far it may be useful to horses troubled with shortness of breath I am unable to say. Perhaps it may be of service then, although the two purposes it is recommended for seem too much opposed to each other. To relieve horses in breathing, and to make a paste for shoemakers and bookbinders, seem contradictory applications. Perhaps the bill-stickers—now-a-days a rather numerous community—may take a hint, and a saving of more palatable food be the result.

Let us now turn to what I expect is meant—the Sweet Chestnut, a tree not quite so widely different from the Horse Chestnut as the chestnut horse, but bearing no resemblance whatever in foliage, character of timber, or botanical structure, being, in fact, about as much unlike as the Globe Artichoke is to the so-called Jerusalem Artichoke. But here the writer of the paragraph is again at fault. I have seen several trees of the Sweet Chestnut cut up, and in the rough condition they certainly resemble the Oak very much, but when dressed the difference is very perceptible; moreover, the difficulty of getting a perfectly sound piece is so great that it will never be a competitor to the Oak for the many purposes the latter is put to. I have seen trees with a trunk from 30 to 40 feet cubic measurement, and when sawn up, no matter whether at the time of cutting down or a year or two afterwards, the planks or quarterings, whichever it was sawn into, would in most instances splinter and almost fall in pieces. Observe I am speaking of perfectly healthy sound trees, no disease nor defect being visible anywhere; yet the adhesion of the timber in a lateral direction is so imperfect that the wood falls to pieces almost in the hands at the time of sawing, or it may be afterwards: so great is this evil that Chestnut timber is but little used for any but rough purposes. We have gate-posts of it that we have found it necessary to bind round the top with iron hoops to prevent their splitting, perhaps, half the way down or more. This is unfortunate, as the tree is certainly one of the handsomest I know, exceeding the Oak in that respect. Summing-up, however, what I know of the timber in a plain practical way, I may say that trees from 6 to 8 and 10 feet of cubic measurement generally cut up better than older ones, the adhesion of the lateral connecting fibres being stronger in a young tree than in an old one. I may further add that the want of adhesion complained of, though greatest in the concentric rings forming the yearly growths, is not confined to these alone. The section of the tree when cut is also liable to star, to use a glazier's phrase, and these star openings extend much further than in any other timber I am acquainted with, so much so that Chestnut timber for anything excepting rough work is seldom met with. Of its utility for cask-making I can give no opinion; excepting that from the faults laid to its charge above I question it much; and I must also leave to others to solve the disputed question whether the roof of Westminster Hall is composed of this timber or not.—A CORRESPONDENT.

HARDINESS OF VARIETIES—FRUIT-GROWING IN THE OTTAWA VALLEY.

THE recent meeting of the Fruit-Growers' Association of Ontario, held in the city of Ottawa, has called attention to the fruits of that region, and has added not a little to our knowledge of what may be done there in the way of fruit-raising.

The valley of the Ottawa enjoys a high reputation for productions of various kinds. Her lumber production is enormous,

her quarries of stone inexhaustible, her marble abundant and susceptible of a high finish, her agricultural productions of a most valuable description. But we have been in the habit of thinking of that region as one possessing a climate far too inhospitable to admit of the growing of fruits. Nor has this impression been altogether without foundation. The severity of her long winters, with upwards of 60° of frost, must of necessity preclude the raising of many very fine sorts of Apple, Pear, Plum, and Cherry, thus almost always necessitating in the planter a degree of knowledge of the relative hardihood of different sorts which he could not be expected to possess.

Many were the attempts made to grow the finer varieties of our various fruits, and nearly as many were the failures, not because of a want of knowledge on the subject of fruit culture in general, but because of a failure to perceive what modifications the peculiarly severe climate and the nature of the soil demanded. Trees were introduced which were wholly unable to bear the severity of that climate, and planted in soil not prepared to receive them. To these two causes—the planting of varieties too tender to endure the climate, and the want of proper drainage of the soil, may be attributed the many and repeated failures which have resulted so disastrously to the planters themselves, and thrown for a time such a cloud over the whole subject of fruit-production throughout that region. Happily for all interested, that cloud is being lifted. With the increase of wealth among the population there has come an increased attention to the question whether good fruit could not grow in their own grounds. Relieved from the pressure of that necessity which compelled the earlier settlers to toil that they might eat, and to eat that they might toil, then came the leisure to study out the difference of constitution in different sorts of the same fruit, and to experiment with these different sorts until those were ascertained which could bear the severity of the climate; while at the same time the means wherewith to underdrain and thoroughly prepare the soil for the growing of fruit trees were at command.

Hence it is that now we have some well established data to go upon in the planting of fruit trees in the Ottawa valley, some points ascertained by actual experiment which serve as guides and finger-posts for all who may hereafter desire to grow fruit there. From the very interesting discussions and relations of experience in these matters which were elicited by the recent meeting of the Provincial Association, we can now say to every landowner in the valley, that he may grow good fruit of many kinds if he will carefully inform himself upon three points:—

- 1st, The varieties that are sufficiently hardy.
- 2nd, The drainage of the ground upon which he intends to plant; and
- 3rd, The form in which he trains his trees.

Experiment has demonstrated that the varieties of the Apple which can be grown successfully are the Duchess of Oldenburgh, Red Astrachan, Snow Apple, Hawthornden, St. Lawrence, and Golden Russet, and all the different Crab Apples. To this list of varieties might be added, with every prospect of success, a few more which have proved to be very hardy in other places where the winters are fully as severe as they are at Ottawa. Of these we venture to name the Telafski, Pewaukee, Wallbridge, Wealthy, Ackerman, Allen's Russet, and Clark's Orange. They have stood unhurt through winters in which the thermometer frequently ranged from 30° to 40° below zero, and therefore are worthy of a trial wherever hardihood is an essential requisite.

It seemed to be a very difficult matter to find a Pear tree that would endure the climate. Even the Flemish Beauty had been killed to the snow line; yet we are disposed to believe that with proper drainage and training both the Flemish Beauty and Clapp's Favourite could be grown and fruited there.

Some of the finer sorts of Plums have been grown with a measure of success. Gentlemen spoke of the Bradshaw, Coe's Golden Drop, Lombard, &c.; but the impression remains that Plums do not succeed as well here as they do at Owen Sound; whether it be because of the cold or for want of proper drainage it is not yet possible to decide.

The only Cherry that has been successfully grown here is the one known generally as the Kentish or Red Pie Cherry. Probably a few of the different sorts of the hardy Morello Cherries would succeed; but none of those likely to endure the climate are of any better quality than the Kentish.

Quite a number of varieties of the early-ripening Grapes will thrive well here, but they must all be laid down and protected

during the winter. The Bamelan, Hartford Prolific, Israella, Delaware, and others ripening not later than these, could be grown with great satisfaction.

Small fruits of every description and every sort, whether Currants, Raspberries, Gooseberries, Blackberries, or Strawberries, can be grown here in the highest perfection, and with the greatest ease. The snow affords them a perfect protection from the cold, so that sorts which are tender at St. Catherine's never suffer from the winters at Ottawa. There is no reason why a plantation of small fruits for the Ottawa market should not be a success.

One of the difficulties in the way of the successful growing of the Apple and other large fruit trees seems to be found in the amount of water present in the subsoil. During the winter the ground is not frozen, and the snow is gradually but continually melting and filling the ground with water. And in the spring this process goes on in increased proportions, so that when the sun has become warm, and by its heat is causing the sap to flow in the branches, and the buds to expand, the roots are kept inactive by the cold wet soil. Under such circumstances it is impossible for the trees to thrive; they may endure for a few years until the roots get into this cold wet subsoil, and then they will begin to show signs of decay, and rapidly die out. The only remedy for this evil is thorough under-draining. Where sufficient fall can be had, the drains should be about 4 feet deep, and not more than 40 feet apart, and of sufficient size to discharge the surplus water rapidly. Would our Ottawa fruit-growers thus prepare their ground before planting their fruit trees, we feel sure they would find their trees would be much longer-lived, and that some varieties could be successfully grown that have hitherto failed.

From what we saw in the grounds of the Hon. R. W. Scott, and gathered from conversation with other gentlemen, there can be no doubt that low heads are the proper form in which to train fruit trees in the Ottawa valley. A long upright trunk is too bare and exposed for the extremes of that climate, and growers have learned by the test of experiment that those trees are the most healthy which are trained low.

The members of the Association living in milder latitudes have returned from the meeting favourably impressed with the capacity of that section for the production of many varieties of fine fruit. All that is required to enable gentlemen to grow all their own summer and early autumn fruits is a judicious selection of sorts, combined with well-drained soil and properly trained trees.—(*The Canada Farmer*.)

STRAWBERRY CULTURE.

I WOULD advise "AMATEUR" and others that have any difficulty in fruiting Strawberries the first year, any sort, to plant from the 1st of March to the 1st of April, according to circumstances. The ground to be well trenched and manured at the proper time. Place the Strawberry plants 30 inches between the lines, and 21 inches apart in the rows. Plant a line of some sort of early Potatoes (I plant Myatt's Ashleaf) between the lines of Strawberries. Spring the Potatoes before planting 1 inch, lift them as fast as possible, and by this time of the year the Strawberries will require all the room I have mentioned. I pick off all Strawberry blooms the first year; that is no loss. I generally sow Lettuces after the Potatoes are lifted.—JAMES WRIGHT, *The Gardens, Gloster Lodge, Croydon*.

CARTER & Co's FIFTY-GUINEA CUP is to be absolutely won this coming season. It is the largest prize for vegetables for the year.

NOTES ON VILLA AND SUBURBAN GARDENING.

ONCE more the products of the kitchen garden claim attention. The weather has hitherto been so very mild that much of the work could with advantage be delayed; but now that we have had a few degrees of frost, with signs of more, our necessary work must be at once done. Cauliflowers, where they are just turning in and not injured by a too low temperature, should be taken up carefully with balls of earth, and placed thickly together under some protection from frost; they will thus keep good for at least another month. The same process must be carried on for the autumn and winter Broccoli, such as Grange's, the Purple Cape, and Snow's Winter White, as they come in for use; these are much harder than the Cauliflower, and may be expected to yield gatherings throughout the autumn, and Snow's Winter White from Christmas onwards.

Now a word or two as to laying down the heads of Broccoli. I, for one, do not think it is necessary to adopt the plan generally. In gardens where the situation is low and damp, and where, perhaps, it is also not in one of the best positions to receive its share of sun, it is probably an advantage to bury the stems in earth, as the frost would most likely affect them much; but in a properly-drained garden, which from its position is airy and dry, it is seldom necessary to lay down Broccoli, unless from circumstances the plants have grown very tall; then it is, perhaps, a wise plan to protect the stems. There is one plan I do agree with, and that is when the plants are growing too luxuriantly through the influence of a mild autumn to check their growth by turning them on one side, they are then in a better condition to withstand frost. It is not a good plan to encourage luxuriant growth too late in the autumn, and it is generally the dwarf-growing sorts that stand the winter best.

Globe Artichokes must now be attended to, for they suffer as much from damp as from frost. If they are growing in rows, dig-out a trench between them, and cast the earth up about their roots in such a form as to throw-off the wet; they may likewise be protected with a little light litter during severe frost, but it must not be allowed to stay on a day after the frost is gone. It is time now to cut picking Cabbage when they have had a little frost on them, as those left after this are liable at any time to split up and become worthless. Plant-out more to come in next season, or it may be deferred till spring, but then the produce is not likely to be so large nor the Cabbage of so good a colour, owing to the want of a little more time to grow.

Continue to place under cover all sorts of Lettuces and Endive as they turn-in fit for use. We have at this time abundance of the Siberian Cos, and Lane's Black-seeded Bath Cos turned-in with nice hearts; they are on a south border, and protected at night by garden mats. The Tom Thumb Cabbage Lettuce is planted thickly in old wooden frames and pits in order to come in for use more towards Christmas; while the same sort in very small plants is put out thickly under walls and in frames for spring planting. Mustard and Cress must now be raised indoors. Any sort of vessel will do for this. I raise mine in shallow boxes, in size 2 feet by 1. The Mustard is covered with a little earth, but not so the Cress seed. It is simply watered, and another box turned over it till the seed vegetates; after that it will do all right, but it is not always that the seed comes up well unless this is done. Stir the soil among Onions, Spinach, and young Cabbages, or any other young growing crop in fine weather; if it do no other good a number of slugs will be killed by the operation.

Now let us look at the fruit garden, and I must say that near this large town the outdoor Vines have in many cases produced excellent crops. The principal sorts are the Black Cluster, Sweetwater, and some Black Hamburgs, and through the fine autumn I consider they are of better flavour than usual. When they are not cut the bunches must be protected from frost, and no bad berries should be allowed; if so, the whole bunch soon decays. I am sorry to see so many Vines neglected, which, from their healthy appearance, might be induced by cultivation to produce a fair crop of fruit. In favourable seasons like the present, by proper attention to regulating the growth, thinning the bunches and berries, good results might be expected.

Those who grow Strawberries in pots ought now to lay them up for the winter. Of course I assume that those small growers have not any convenience for storing them under cover, therefore they must be laid-up outdoors. I find it a good plan to place the pots on a bed of ashes, pushing between each pot some leaves, rough manure, &c., tightly, and not lay the pots on their sides; and if the spot is somewhat elevated, so that no water can lodge about them, they will be secure from injury at the root by frost; but when that comes at all severe, it is as well to protect the foliage by throwing a little rough straw over the whole. It is time that fresh plantations of Raspberries were made where such are wanted, and the others filled up where vacancies occur. Prune them to the height of the stakes, and leave no more than five nor less than three canes to each plant; top-dress them with manure, but do not dig among them, or it destroys an abundance of roots, which in this plant are only just under the surface.

Flower-garden plants in frames must have an abundance of air at all favourable times, so as not to let them grow too fast now the shorter days are here. Keep the flower beds picked of decayed blooms, and clear from dead leaves; water them sparingly, and if any plants are making a coarse growth beyond the others, pinch-out the point of the shoot. Plant Roses now, and cover the roots with a coating of protecting material. Camellias will now be advancing towards blooming. Thin-out the buds to not more than three to a shoot: sometimes two, or even one will be enough to leave; the strength and health of the plant will be a guide. Azaleas may now be kept cool preparatory to putting them into the greenhouse for blooming. Now is the

time to pot-up Lily of the Valley for forcing if the roots are taken up from the bed. Select the largest and thickest crowns with as much of their own root as possible, place them thickly together in pots, and work some soil among them; water well, and set them aside in a cool frame for a time, and they will be ready to bear forcing.—T. RECORD.

BLACK PEPPER.

VERY early in the sixteenth century, in consequence of the discovery of the passage to India round the Cape of Good Hope, Pepper became a condiment commonly used in Europe; and Lyte, writing in 1578, tells, "It is put into sauces to give a good smack and taste unto meates, to provoke appetite, and helpe digestion;" and the use of it so rapidly increased that about thirty years ago the quantity collected amounted in the East Indies to 50,000,000 lbs., of which one-third came to Europe, and the chief part of the remainder went to China. Since then the growth in India has vastly increased, and so has the importation into England. In 1873 no less than 26,324,828 lbs. were brought hither, valued at £818,437; but 12,386,469 lbs. were again exported. Yet in the fifteenth century the use of this spice was not uncommon, for in a MS. possessed by the Royal Society of that date are many recipes in cookery; and in one entitled "Brus to Potage," being a meat stew, it is directed to season it with 'pouder of pepur and of clowes,' and the 'pouder of pepur' is an ingredient in many other of the recipes, one of which being very brief we publish unabbreviated.

"PEJONS SIWET.
—Take pejons and wassh hom clene, and stoppe hom well with garlek, and parsel small hewen, and do hom in a potte by homself; and therto gode brothe and sauge, and parsel, ysoppe and savoray small hewen, and pouder of pepur and of clowes, and colour hit with saffron, and do therto verjns, and serve hit forthle."

What we have written refers chiefly to the use of Pepper in the British islands, but it was known to the ancients. Hippocrates only mentions it as used in medicine, but Pliny speaks of it as a condiment, and was surprised at its use because it has no agreeable flavour. Even as late as the thirteenth century it was costly, and a few pounds were considered worthy of acceptance by a monarch.

"What is Black Pepper?" is asked in a periodical now before us; and although we do not usually reply to extraneous questions, we make an exception to our rule, and reply, It is the fruit of a climbing plant, *Piper nigrum*; and we will add that White Pepper is produced from the same plant. An old authority truly states:—"White Pepper is the ripe and perfect berries of the same species stripped of their outer coats. For

this purpose the berries are steeped for about a fortnight in water, till, by swelling, their outer coverings burst; after which they are easily separated, and the Pepper is carefully dried by exposure to the sun; or the berries are freed from their outer coats by means of a preparation of lime and mustard oil, called 'Chinam,' applied before it is dried. Pepper which has fallen to the ground over-ripe loses its outer coat, and is sold as an inferior sort of White Pepper."

Another authority upon which we cannot improve, relates that in the East Indies it is very extensively cultivated, the plantations stretching from the 96th to the 115th degree of east longitude, and from the 5th degree of south latitude to the 12th of north latitude, which limits comprise Sumatra,

Borneo, the Malay Peninsula, and all countries to the east of the Gulf of Siam. The best Pepper comes from Malabar, the least esteemed from Java and Sumatra. The plant is allowed to grow trained to the stem of the Areca Catechu and other trees, especially the Jack (*Artocarpus*) and *Hyperanthera Moringa* (or Horse-radish Tree), four years before the fruit can be collected. The berries are gathered when yet green, before they are perfectly ripe, and quickly dried on mats, by which they turn black. When plucked too young they speedily fall into a state of powder. These are separated from the others by sieves and winnowing. In this condition it is termed Black Pepper. White Pepper is the same fruit freed from the outer rind: for this purpose the ripe berries are allowed to macerate in water and the husk is removed. These are smaller, smooth, of a greyish white colour varying to yellow, with a less powerful odour and taste than the Black.



Fig. 118.—BLACK PEPPER (*PIPER NIGRUM*).

The plant is stated in the "Hortus Kewensis" to have been first introduced into our stoves by Messrs. Lee & Kennedy in 1790.

LARGE PEARS.—Mr. G. Thomas, fruiterer, St. Helier, Jersey, last week exhibited three Pears of the Belle de Jersey [Uvedale's St. Germain], which weighed respectively 3 lbs. 4 ozs., 3 lbs. 5 ozs., and 3 lbs. 14 ozs., making a total of 10 lbs. 7 ozs. The Jersey pound being 17½ ozs. avoirdupois, this gives the extraordinary weight of 11 lbs. 6 ozs. English for these three Pears.

DOINGS OF THE LAST AND PRESENT WEEKS.

HARDY FRUIT GARDEN.

THE culture of hardy fruit trees is carried out to a much larger extent and more generally understood than heretofore. In a previous number allusion was made to the dwarfing stocks for various trees, and amateurs are indebted to these for the very neatly-trained pyramid and bush trees that are to be found in

many villa gardens. Mr. Thomas Rivers, the veteran cultivator of the Sawbridgeworth Nurseries, has done good service by publishing his "Miniature Fruit Garden," where the pinching and summer-pruning of the trees are fully explained; but one mistake is very easily and also very frequently made, and that is to allow the branches to become too much crowded. When this is the case the wood does not become thoroughly matured, and the proportion of fruit buds will be few in comparison to those trees where the young growths have been sufficiently thinned-out. We have a good deal of extra work, and cannot as yet get at the trees, otherwise we would have gone over them all about this time, and thinned-out not only the young wood, but also the larger branches and all unsightly apura. Free-bearing trees and those that are well furnished with blossom-buds have a dressing of rotted manure placed over the roots at this time of the year; the nutriment from this is washed down to them. It also acts as a stimulant to them as well as a mulch in summer. It is better not to mulch any trees that have made much unfruitful wood; the extra stimulant will cause the trees to grow more freely than is desirable to produce fruitful wood.

There is also much difference of opinion as to the desirability of digging the borders or not. Some persons contend that a spade or fork should never touch the soil, others that the borders should be dug annually. Now both parties may be right, and the only difference is in the character of the soil. In light sandy soils it is better not to break up the surface, but on stiff, clays this may be done with advantage. If it is not done it is hardly possible to get a Dutch hoe to penetrate the surface, and the ground cracks in all directions. There are two advantages from digging the surface of the ground amongst fruit trees; one is that the garden looks neater in winter, and in spring the ground can be easier hoed.

Running the hoe through the *Strawberry beds*, and cutting-off the runners and decaying leaves. This is also the time to dig between the rows where the same beds are allowed to remain many years in succession on the same ground. Sometimes all trace of the rows is lost in the interminable maa of runners; when this is the case a line is stretched from one end of the bed to the other, and rows are cut out of the maa with a sharp spade or a grass edging iron. In good Strawberry soils a fair crop of inferior fruit may be obtained from plants treated in this way, but nothing as compared to that from the annual or biennial renewals of the plants. When the plants are established for many years on the same ground, attention should be given to keep them clear of runners during the growing season, to allow only the crowns that are intended to bear fruit to ripen perfectly.

FRUIT HOUSES.

Pine Houses.—The weather has been very favourable to the ripening of fruit—a high temperature out of doors with a moderate amount of sunshine. The same favourable weather has also been suitable to the ripening of early suckers, which will throw up fruit in March. The treatment of the latter as to atmospheric conditions and temperature is very different from that accorded to fruiting plants. For the first secure a warm dry atmosphere, about 65° at night, with a free circulation of air as often as the state of the weather out of doors will admit of it; for the other the atmosphere should contain a moderate degree of moisture—not a steaming atmosphere, but such as would be obtained by damping the walls and paths of the house twice daily, not from allowing water to come in contact with the hot-water pipes to cause a steam. What are wanted are not very large plants with long dark green leaves, but stout stocky plants with the pots well filled with roots, and which have not been over-stimulated by rich soils or liquid manures. When Pine plants are grown to a very large size, even if they have all the appearance of robust health, it is seldom that fruit is produced in proportion to this gigantic growth. A warm steaming atmosphere with little air will produce a healthy-looking but not a really healthy growth. The last plants in the fruiting house have been taken out of the bed and placed in a lateinery, as all the fruit were changing. A batch of plants fruiting, and which will yet throw up, has been removed to the house. The old plunging material has been removed and a fresh lot put in place of it; the reason being, that the old though not quite exhausted tan becomes full of woodlice and crickets. Clearing the whole out frees the house of these and other pests.

Dessert Oranges in Cucumber and Pine houses are ripening off better fruit than usual. The trees had a very sickly appearance after the fruit was set; probably the compost in which they were potted was not of that substantial character in which the Orange tree delights to grow. The following dressing was applied to the surface of the pots—viz., equal parts of guano, charcoal powder, and loam. The result was wonderful. In less than two weeks the pale green leaves became of the deepest healthy green; fresh healthy growths took the place of those of a stunted unhealthy character. A temperature of 65° at night is very suitable to the ripening fruit.

Cucumber House.—This is a very trying time for the occupants of this structure. The plants in our fruiting house died off in a

very unaccountable manner before the younger ones were ready to put out. As soon as possible all the old soil was removed, a fresh compost of turfy loam with a little rotted manure added to it was put into the bed, and the young plants turned out. With Tender and True and the original stock of Blue Gown a supply has been kept up every month in the year; but wishing to have the stock true, a succession of plants has been kept up from cuttings for a number of years. And even though the fruit is so long, and not so freely produced as that of the Sion House breed, we have not yet been driven to a plan practised by some gardeners, and that is to cut a specimen in half for one day, reserving the other portion for a future occasion. However, it is as well to know that this plan answers occasionally when Cucumbers are not plentiful.

PLANT STOVE AND ORCHID HOUSES.

We have not found it necessary, in order to maintain a suitable temperature, to use much artificial heat. The shading has also been removed from all the houses except the cool Orchid house, and no syringing overhead is practised; keeping a look-out for mealy bug, and destroying it on its first appearance. The different varieties of *Calanthe* are in full beauty at present—long handsome spikes of pure white, white with yellow and red-eyed, also the many different shades of colour from pale rose to deep red in the beautiful hybrid *C. Veitchii*. And how easily they are grown! Orchid peat and sphagnum moss are not at hand everywhere, and the greater proportion of *Orchids* cannot be grown without them. Not so the *Calanthe*. Turfy loam from any upland pasture, an eighth part of rotted manure, and a little silver sand added will grow them to perfection. Pot three bulbs in a 6-inch pot, draining them well, and taking care that the drainage is not choked by the particles of loose earth which adhere to the turf; a little sphagnum, or the rougher portion of the loam from which the loose earth has been shaken placed over it, will prevent this. We do not overwater the plants now, and when the flowers fade no more water will be given until the bulbs start into growth in February. *Poinsettia pulcherrima* is forming its floral bracts, and, the pots being packed quite full of active roots, a little weak manure water helps them greatly. *Bougainvillea glabra* has been removed from the stove to a greenhouse temperature. This plant requires scarcely any water during the winter months. The earliest plants of *Dendrobium nobile* are in full flower. The latest-flowering have just completed their growth, and have been removed from the stove to a cool house.—J. DOUGLAS.

TRADE CATALOGUES RECEIVED.

Kelway & Son, Langport, Somerset.—*Catalogue of Gladioli*.
J. Cocker & Sons, Sunnypark and Froghall Nurseries, Aberdeen.—*List of New Pansies*.

R. Cragg, Car Colston, Bingham, Notts.—*List of New Roses and Hardy Spring Bedding Plants*.

J. B. A. Deleuil, Traverse du Fada, Marseilles.—*Catalogue of Amaryllis, Begonia, Echeveria, Yucca, &c.*

Little & Ballantyne, Carlisle.—*Descriptive List of Fruits*.

F. & A. Dickson & Sons, 106, Eastgate Street, Chester.—*Catalogue of Forest and Ornamental Trees, Evergreens, &c.*

Frères Simon-Louis, Plantiers-à-Metz.—*Prix Courant et Nomenclature Générale des Variétés en multiplication, 1874-75, des Arbres, Arbustes, et Arbrisseaux Fruitières, d'Ornement, de Plein Air, et des Rosiers*.

C. Huber & Co., Hyères (Var).—*Catalogue Général pour l'Automne, 1874, et le Printemps, 1875. Cultures spéciales pour la production de Graines de Fleurs, d'Arbres et d'Arbustes d'Ornement, &c.*

Smith & Simons, 36 and 38, Howard, St. Enoch Square, Glasgow.—*Catalogue of Roses and Gladioli*.

TO CORRESPONDENTS.

* * All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

ENAMEL BEDDING (F. H.).—As you only name three kinds of plants for your beds that are 2 feet 6 inches wide, we conclude it is unnecessary to caution you against attempting too much in such narrow beds. The proportion which the plants should bear to each other depends entirely upon their position. For an outer row of Golden Feather Pyrethrum, along each side there should be two of *Alternanthera* next it, with a broad band of *Lobelia* entirely filling the centre; or one row of *Lobelia* against the Pyrethrum, with all the centre of *Alternanthera*.

LARCH CONES (B. B.).—Our correspondent will be obliged by being informed how best to extract the seeds from Larch cones.

SELECTION OF VINES (T. H.).—Additional Muscats may be Duchess of Buccleuch, Bowood Muscat, and Mrs. Pince's Black Muscat. For your Black Hamburgh vine you may have Black Frontignan, Black Prince, Black Champagne, and Royal Muscadine.

MUSHROOM CULTURE (W. Ferguson).—In our No. 68 there is a full detail of the culture. We know of no modern book devoted to the subject.

VERBAL AGREEMENT (Joplin Smith).—That has no legal protection for you. You had better state the case to the purchaser and make a compromise.

FUNGUS (X. Y. Z.).—The fungus is *Cantharellus aurantiacus*, the false Chanterelle, a near, but suspicious, ally of *C. cibarius*, the edible Chanterelle. We cannot name the other without seeing a specimen, but it may be a variety of the above.

DRIED FLOWERS FOR CHRISTMAS DECORATIONS (M. E. M.).—Any of the principal florists who advertise in our columns, and the florists in the Middle Avenue in Covent Garden Market, sell them.

FLOWER-BED ARRANGEMENTS (E. M. J.).—The proposed arrangement does not infringe the laws of colour, and it is well balanced, yet many of the combinations are harsh to say the least. We do not like the effect of the dark Iresine Lindeni with Bijou Geranium in 2, 3; exchange it for the Blue Lobelia in 4, 5, and make a broad edging of two rows of Lobelia around Bijou in 2, 3, so as to impart tone and softness to two such large beds, which otherwise might overpower the central bed, rendering it insignificant. This latter bed might be somewhat larger with advantage. Of the beds in the side panels, 10 and 11 are not good. We would substitute *Tagetes signata* pinnatifida (keeping its flowers picked-off) for the Perilla; 14 and 15 are quite inadmissible. We are really disposed to be severe with you; the combination is glaring—in the worst possible taste, and has not even the merit of novelty. Pray discard the Calceolaria, and substitute *Viola cornuta* Perfection for it; and in 16, 17, replace the Iresine with Lobelia Omen, or failing that, take the bright *Coleus Verschaffeltii* Improved. We possess no real substitute for the Golden Pyrethrum; try the Golden Stitchwort, *Stellaria graminea* aurea. *Polemoniumeruleum* variegatum forms a charming edging, and *Coprosma Baueriana* variegata is now deservedly popular; it has fine handsome foliage of deep green and rich yellow. Your bedding stock is somewhat antiquated. Miss Kingsbury Geranium is far superior to Bijou, and of other plants you should have *Santolina incana*, *Mesembryanthemum cordifolium* variegatum, the *Coprosma* and *Polemonium*, *Leucophyllum Brownii*, *Cineraria maritima* compacta, some of the Alternantheras, such as *amena* and *magifica*, with such Geraniums as Rev. F. F. Fenn, Florence Durand, Black Douglas, Creed's Seedling, and William Thompson.

WINTERING ECHEVERIAS IN A COLD FRAME (J. F. C.).—They would not winter in a cold frame unless you could with certainty exclude frost, and they are also liable to suffer from damp. They are best wintered in a house from which frost is excluded, and should be kept rather dry.

WINTERING DAHLIA ROOTS (Idem).—It is evident, from the roots having decayed, that they have been frozen before or after they were stored in the sand; we think the former. The crowns being near the surface are often damaged by a severe frost, and wet very often is a cause of the buds or eyes decaying. We should take them up after the first frost, and if they are not flowering we would remove them now, cutting off the tops at 6 inches from the ground; on taking up remove all the soil, and lay them upside down in a shed to dry. When dry, as they will be in a few days, place them crown upwards in sand, just so deeply as to cover the crowns, and in a place safe from frost. They would do well in a box in rather damp sand, not wet, on a shelf in the boiler-shed, the temperature not exceeding 45°.

HEATING CUCUMBER PIT (J. D.).—There is always a difficulty in flue-heating, and especially when it is employed as a means of affording bottom heat, in diffusing it equally throughout the house. The hot air chamber will help you on the side where the flue first passes along, but not at the other, which will need to be exposed for top heat, it being aided by the heated air of the other introduced to the house by the opening in the chambers. Another furnace can hardly be necessary for so small a house, and you will not need bottom heat on both sides, as a bed on one with the plants trained over the roof to the other will be ample. Your heating is wrong; the flue ought to be clear of the outside wall, and the three surfaces—two sides, and the top—would give you about one-third more heat from the same furnace, and probably all you require. The flue should also be clear of the ground. What do you think of heating by hot water? When a high temperature is required it is the preferable mode of heating.

BEGONIAS IN WINTER (Flora).—If of the bulbous section they will need to be kept dry like Gloxinias, and in a temperature of not less than 45°, potting and starting into growth early in March, and growing on in heat until they are coming into flower, and may then be removed to a greenhouse, assigning them the warmest part and lightest position. Many of the kinds are very beautiful. They are also suitable for warm positions outdoors, hardening well off before planting out.

PRUNING FIGS (Idem).—Prune them in April, cutting out the old bare branches destitute of young growths, which last should be retained and not shortened. As soon as the leaves have fallen, the trees ought to have the branches and shoots brought together, and be covered with mats to protect them from frost, removing it in April, or, if mild, earlier.

PROPAGATING VERRENAS (A Constant Reader).—It would not answer to take cuttings now, as they would not strike without bottom heat; but you may take up the plants, cutting them in rather closely and pot them, propagating from them in spring in a hotbed. The Show and Fancy Pelargonium cuttings ought to be potted singly, and when they are established should be cut back. The Rose cuttings "taken off at this time" should be in a north or sheltered shady border. Our "Florists' Flowers" contains the treatment of Pelargoniums, Verbenas, &c. It may be had by post from our office for 5d.

SEEDLING PLUM? (C. Marsden).—Your Plum is a valuable one on account of its excellent quality at so late a period of the year as this is. It has the appearance of a late Diamond, and may probably be the same as what is known in Yorkshire as the Ryedale Plum. It is worthy of an extended cultivation.

PEAR MALFORMED (J. Taylor).—Your Pear with an excess of calyx at its eye—in fact, an instance of morphology, in which the calyx has become a mass of leaves—is very curious, but such instances, more or less excessive, are continually occurring.

GRAPES FOR SPAN-ROOFED HOUSE (A Continental Reader).—Buckland

Sweetwater, Black Muscat of Alexandria, Madresfield Court, Mrs. Pince's Black Muscat, Alicante, Black Champion, Black Hamburgh, Black Monukka, Black Prince, Lady Downe's, Frankenthal, Tretham Black, West's St. Peter's, Canon Hall Muscat, Muscat of Alexandria, Foster's White Seedling, Dr. Hogg, Duke of Buccleuch, Gros Guillaume, Mill Hill Hamburgh. These embrace the best of the Grapes grown in English gardens for dessert and exhibition.

WHITE GRAPE FOR EARLY VINERY (A. A.).—If you have a preference for White Frontignan Grapes you cannot do better than plant Dr. Hogg, raised by Mr. Pearson, which is the finest of all of that class.

POTATOES.—"In reply to 'D. W. W.,' my experience of Sutton's Hundred-fold Fluke Potato is precisely similar to his. I have grown it two seasons with a like result; it is waxy and quite unfit for the table.—F. W., Hertford."

PEAR FOR S.W. WALL (J. Chapman).—Plant Glou Morceau. The path you mention will not injure the tree.

NAMES OF FRUITS (J. Green).—Soldat Esperen. (R. H. A.).—1, Catilla; 2, Triomphe de Jodoigne. (W. B. B.).—8, Scarlet Nonpareil; 9, Cox's Orange Pippin; 10, Marmalade Pippin; 16, Golden Winter Pearmain; 18, Wyken Pippin; 20, London Pippin. (Mrs. G. A.).—1, Scarlet Nonpareil; 8, Northern Greening; 4, Ord's. (E. Higgin).—Vicar of Winkfield. (C. cum J.).—59 and 110 Duchesse d'Angoulême; 164, 231, and 230, Vicar of Winkfield; 194, Bourré Langelier; 217, Van Mons Leon Leclerc; 192, Doyenne Gris; 216, Poire d'Amour; 180, Catilla; 60, Flemish Beauty. (G. Drea).—1, Glou Morceau; 2 and 3, Verulam; 4, Kirke's Lord Nelson.

NAMES OF PLANTS (Young Gardener).—All wretched specimens; 2, *Silene* sp.; 4, *Alternanthera* sp. Rest only leaves. (W. Welsh).—1, *Peperomia arifolia* var. *argyrea* (Bot. Mag., 5634); 2, *Eupatorium Weimannianum*; 3, *Begonia arystrochisma*; 4, *Ceropegia elegans*; 5, *Spirea callosa*. (G. N.).—1, *Alstroemeria* sp.; 2, *Disandra prostrata*. (A. B. C.).—1, *Bromus maximus* (?); 3, *Lromus* sp. (?); 2, *Eriophorum angustifolium*; 4, *Poa trivialis*; 5, *Aira* sp.; 6, *Panicum triviale*. (Name Misaid).—1, *Asplenium flabellifolium*; 2, *Adiantum farleyense*.

POULTRY, BEE, AND PIGEON CHRONICLE.

OXFORD POULTRY SHOW.

(From another Reporter.)

FEW, if any committees of poultry shows, can boast of so rapid an advance in public favour as the Managers of the Oxford Show. This year's aggregate entry was considerably over 1400 pens, and we can justly say that the majority of the birds were of unusual excellence. This can only be ascribed to the liberality of the prize schedule and the unvarying courtesy of everyone in connection with the Exhibition. There is, however, one feature that before another season comes round requires revision—viz., as a trial it was arranged (and a notice to that effect was actually printed on each label), that competitors must send in their birds before midday on the Tuesday, the Committee indulging the hope that the catalogue and general awards would be ready by opening-time the next day. It proved (as it invariably has done in the many cases in which the attempt has been made), a marked failure, for during the whole of the afternoon basket after basket arrived from the railway stations, as, in fact, was the case also in many instances during the following day. The publishing of the catalogue was therefore in no way expedited, whilst the Judges who awaited orders for some time, found soon after commencing their duties the shades of evening fast stealing in upon them, so that the greater portion of their awards had to be made with undue rapidity during the earlier part of the Wednesday forenoon to meet the opening to the public at 11 A.M. The wiser course with so good a Show is to arrange for the reception of the poultry to take place over evening, and then the Judges can without hindrance enjoy the whole of the following day in the fulfilment of their by-means-easy adjudications. As will be seen from the above, the best lights of both middays proved unavailable. We may add that both poultry and Pigeons were very carefully attended to, and the repacking was most expeditiously carried out; the railway officials worked also with a will to return the packages by the earliest available trains.

The competition in almost every instance was confined to chickens of the year. The *Dorking* classes were not of that general excellence that might have been fairly anticipated, more especially as Prince Leopold gave a silver cup for the best pen of Dorkings of any variety. It was won by a new exhibitor with a pen of Dark Greys, large in size, wonderfully perfect in legs and feet, and of good colour. A very fine pen or two were thrown out of competition by the extremely sooty colour of the feet, an inadmissible failing with Dorking fowls. One of otherwise the best pens in the lot (15), Mr. Gee's, contained a hen with a wry leg, and we regret to say, although entered as chickens (pen 11), Mr. Henry Lingwood's were unquestionably old birds, and consequently were disqualified. Silver-Greys, White, and Blue Dorkings were throughout of medium character. The *Spanish* were very fine, though many were not in first-rate order for the show-pen. The Spanish cup pen was extremely good, in admirable condition, and being entered at the ridiculously low figure of £3 12s., were speedily claimed amidst a host of competitors, the lucky purchaser having many willing offers of double the amount he had just paid for them. Another equally covetable bargain was the two-pounds *Spanish* cock in

the Selling class, for which we were told the new owner absolutely refused eleven sovereigns! In *Cochins* (Buff), the competition was excellent and a close run. The first-prize pen, though very young, were extraordinarily large and of good colour; the second-prize being a very highly conditioned pair, the pullet a gem, but the cockerel by far too high-coloured on the shoulder, slightly barred on the wing with a narrow line of white, and did not carry his wings as satisfactorily as he might have done. A few pullets of grand colour and shape were also shown, but mated with indifferent cockerels. The Partridge *Cochins* were in admirable feather, and comprised twenty-three pens, twelve of which appear in the list of awards. At the head was a grand pen of Mr. Tudman's, the cockerel being a perfect giant, with resplendent black breast and general plumage, whilst his companion pullet was one of those most accurately-marked gems so rarely seen now-a-days, but which were so admired by amateurs of some twenty years or more back. The third-prize pair, shown also by Mr. Tudman, were equally remarkable for *Cochin* type and the heavy leg-feather and fluff for which most Partridge *Cochin* breeders now seek in vain. It is scarcely to be wondered at that such superiority of Mr. Tudman's strain of Partridge-coloured *Cochins* should raise irritable feelings in the breasts of those who pride themselves in fruitless endeavours to despoil that gentleman's yard of its well-deserved notoriety. Both *Light* and *Dark Brahmas* were very large classes, among which were a number of most excellent chickens, but the order of the day seemed to be the selection of first-class pullets to inferior cockerels.

Game were throughout the finest classes yet seen this season, Brown Reds and Black Reds of either sex being general; and the Duckwing pullets deserve a special note as to their excellent quality. A protest for painting the wings of the cup Duckwing Game pullet was entered, but proved to be utterly groundless. This new kind of annoyance against successful exhibitors requires, as will be seen by what follows, a little careful investigation, and prior rules for its due administration, as being apt in the hands of the disappointed or the unprincipled to bring on alike unjustifiable expense and trouble to the managers of similar exhibitions. In Golden-spangled *Hamburg* cocks Mr. James Long took the silver cup with a very excellent bird, claimed by himself at a show about a month back at ten guineas. It appears that a notification reached a party at the Oxford Show, who was himself implicated some years back in a matter of the like character, that if this particular bird "won the cup" (pen 427), a protest was to be at once entered against it for being "trimmed" on the breast feathers. Fulfilling to the letter the instructions just named, the protest was presented, but properly refused by the Committee unless sent directly from the objectors. A telegram was received a few hours later complying with the demand of the Committee, and therefore was at once entertained, it being then getting late in the last afternoon of the Show being open. Mr. Edward Hewitt of Birmingham, as being the nearest available Judge, though not previously officiating in the classes for *Hamburgs* at the Oxford Show, was summoned by telegraph, and after the passage of not less than five telegrams, went direct at a moment's notice by the first available train. It proved Mr. Long's bird was unquestionably trimmed on the breast feathers, the white flecks at the tips being very artistically removed by scissors. In compliance with the usual regulation against trimming the cup was consequently withheld. But what now occurred seems to give the appearance that Mr. Long was rather sinned against than sinning, for that gentleman astutely suggested that the second-prize pen (428), shown by his accusers, Messrs. Duckworth, should be then subjected to the same ordeal, to which all unanimously agreed. The result was this cockerel proved far more thoroughly "trimmed" than the former one. Our readers will be best able to form their own conclusions as to who might have actually "trimmed" this fowl, the fact of the trimming of both being all that was entertained at the meeting.

Lovely varieties of *Waterfowls* formed a large class, and the entries of *East Indian Ducks* were extraordinarily good. *Turkeys*, the heaviest weighed 54½ lbs. net. The best pen of *Aylesbury Ducks* reached 17½ lbs. the pair.

(From a Correspondent.)

THERE has probably never been gathered together a finer collection of chickens than that which was to be seen at Oxford on October 28th and 29th; for though many classes at the Birmingham Summer Exhibition were filled with remarkable birds, still the average merit was not so uniformly high through all classes. The birds, of course, were not so matured, and there was not the same opportunity of viewing them well and judging them fairly. The Show appeared to us in every sense of the word a success, and the Committee deserve the highest praise for their untiring zeal and peculiar talent for organisation. The greater part of the poultry were shown in the Corn Exchange, a building beautifully lighted from above, and well ventilated. How strange it seemed to see rows of Mr. Billet's pens all over the

area, which we have seen cleared for the gorgeous masonic halls at Commemoration. The numbers were well arranged—no running up and down was necessary to find the separated halves of classes, as is so often the case, and still it was so managed that those varieties which peculiarly require a good light to be appreciated were advantageously placed. In a gallery at the end of the building were two rows in charming contrast, the one against the wall of *Silkie*, almost every pen beautifully shown, and in front of them *Black East Indian Ducks*, so placed that you could look through the pen from either side, and catch their lovely lustrous hues in the fullest light. The *Pigeons*, *Bantams*, and a few other classes were in the Town Hall, a good building for the purpose; and the court-yard between the two buildings was roofed in to form a spacious corridor, with *Geese*, *Ducks*, and *Turkeys* on either side.

The Oxford Committee are fortunate as well as able and energetic, for we know of no other show which is to such a degree patronised by all classes. The county families all drive in to see it, and send many representatives of their yards; the ancient University, too, by no means despises poultry-keeping as too rustic an amusement. At least three heads of colleges and the venerable archdeacon are fanciers, and might be seen carefully scrutinising the pens; the undergraduate element is not wanting either amongst exhibitors or visitors. The farmers of the neighbourhood take much interest in it, as is evident from the increasing number of local exhibitors. A poultry show really does good which draws farmers into the fancy; they have the best opportunities for rearing good birds, and by a little attention to the subject their stocks may be made really profitable. Lastly, the townspeople came in in crowds on the second evening. Why the inhabitants of Bristol, Cambridge, and other places will not do the same is a mystery.

To come to particulars, *Dorkings* headed the list very properly. (Why, by the way, should Birmingham, of all places in the world, go in for fashion, and displace this old English breed for the popular *Brahmas*?) Coloured birds numbered eighteen pens. Judges seem to think that champion cups must necessarily go to this variety. We could not admire the pair to which Prince Leopold's £5 cup was awarded. The cockerel was large but ungainly, and held his tail on one side; the pullet was lighter in colour than winners generally are now-a-days. Mr. White's second-prize pair were good all round, save that the cockerel's earlobe showed white. Mr. Burnell's third-prize pen contained a grand cockerel, lacking a trifle in sprightliness. Mr. Stratford's fourth-prize pen was unequally matched, the cockerel a good *Dorking* in shape, deep-breasted and full-tailed; the pullet poor and light in colour. Pen 8 (Taylor) had the advantage of a corner pen, but seemed to us worthy of more than a high commendation, the cockerel good in shape and comb, and with spurs well inside; 9 (Beachey) were large birds, but the pullet had bad claws and sooty feet; 11 (Lingwood) evidently contained an old cock (and we hear the Judge thought an old hen too), with spurs growing for the second time; 15 (Gee) were winners of the local prize, the hen had apparently once had a leg broken. On the whole this was not one of the best classes.

Silver-Greys (fourteen entries).—Here the standard seems going up rapidly; red in the wings of pullets is a rare failing now, and the cockerels were nearly all veritably black-breasted. The cup pen was faultless; their owner's highly commended pen contained the finer pullet, but not in such condition as the winner's. The second-prize cockerel was in our opinion far too yellow for a prize *Silver-Grey*. Third-prize pen contained a large and beautiful pullet; the cockerel too grizzly in thigh. Mr. Wren's fourth-prize birds were neat but small. Pen 19 (Cato) a well-coloured pullet, silvery, with real robin breast. Pen 21 (Rutledge) a fine pullet. The local exhibits in this class were a sad falling-off in quality from the two previous shows.

Cuckoos (seven entries) were on the whole a failure; the cup pen dark in colour, and of fair size. The second-prize pair were poor, the cockerel very light, and his hackles yellow. The best *Cuckoo* we saw in the Show was a cockerel of *Lady Dartmouth's* in the Selling class.

White (twelve entries).—The cockerels in this class struck us as being forwarder than the pullets, and superior to them. The growing tendency in *Dorkings* to spurs behind seems a special failing in the *White* variety. The cup pen large, and evidently still young; but the cockerel's comb is coarse, and when more developed will be to one side. The award of the second prize was incomprehensible; the birds are both yellow all over. Third-prize handsome cockerel, good in comb, though we preferred the same exhibitor's unnoticed pen (46) for the rare whiteness of the cockerel, the Birmingham cup bird. Pen 41 (*Pilgrim*), neat though small; 42 (*Robinson*) contained the largest pullet in the class, but with a bad comb; 50 (*Tearle*) very young and promising birds.

Spanish (seventeen entries) were not equal to many other classes; a first-prize *Spanish* cockerel in the Selling class was a remarkable bird, and with an equally good pullet would have been far before the winners in this class. The pullet in the cup pen was a beautiful bird, the cockerel smooth but not large in

face; they were priced at £3 12s., and were a bargain for somebody. The third-prize pen contained a splendid cockerel, with a wretched pullet. Pen 52 (Parker) looked very young, and merited a notice; pen 61 (Rodbard) a sprightly cockerel, most lustrous in colour.

Cochins.—The show of Cochins was excellent, many of the birds being marvels in size and development. Cinnamons and Buffs numbered nineteen pens. The first place was closely contested by Mr. Percival and Lady Gwydyr. The cup birds were of enormous size, the pullet deep buff and sound in colour. Lady Gwydyr's pullet was of an exquisite canary colour, the peculiar shade we remember having seen in some of the early-imported Cochins; unfortunately, from the illness of the cock, this pen was removed before we had a full view of them. 73 and 74 (Burnell) were good pens, the pullet in the latter very young. Partridge (twenty-three entries).—There could be no doubt about the award in this class, Mr. Tudman's pair were grand all round, the only fault which the most critical eye could discover would be in the leg-feathering of the cockerel. The cockerel in the second-prize pen was of enormous size and rich in colour, but underfeathered on the leg; the pullet's breast-pencilling very distinct. Mr. Tudman also carried off the third prize with a grouse-feathered pullet, and a cockerel perfect all round, though small.

Black Cochin fanciers have made most meritorious efforts to improve their breed and to bring it into notice, but we must confess that their efforts have up to the present time met with but partial success. Blacks mustered sixteen pens. The cup birds looked young, and should develop into something good; second apparently very young. They are excellent in colour, the cockerel especially so. Taken all round, we preferred Lady Gwydyr's pullet to the cup-winner. 114 (Goring) were about the largest pair, but the cockerel had the fatal colour in his neck-hackle.

Any other variety (or rather Whites, for no Cuckoo or bird of unwonted colour put in an appearance), were an admirable class of fourteen pens, on eight of which were cards. First, of course, was Mr. Woodgate with a pair before which critics must be silent, the pullet still young, and of marvellous frame; the second had but one fault—a little white in the cockerel's lobe; the third-prize cockerel was by no means equal in comb to his two superiors in the list. The local-prize pen contained a gigantic cockerel, though with a tendency to sickles, and not good in colour, and a fine and pure white pullet. Pen 130 (Burnell), a good pullet, but rather yellow.

Brahmas followed; and what work for judges and reporters! Thirty-four pens of Darks of the highest merit, and thirty-eight of Light. First came the Dark. We were very glad to see the cup won by Mrs. Baillie Hamilton, who has long so carefully and perseveringly bred Dark Brahmas. The cockerel is an immense bird, though browner on the wing than we like; the pullet also very large, but not very distinct in breast-pencilling. Mr. Ansell's second and fourth-prize cockerels were both grand birds, the pullet with the former most beautifully pencilled on the breast. Mr. Lingwood was only third, which speaks much for the excellence of the class. His pullet was hardly equal to his usual type, and we suppose pulled down her magnificent broad partner. The fourth-prize cockerel had white in the tail, and the pullet was by no means equal to the second. We admired two of Miss Douglas Pennant's pullets; but the gem of the class, in our opinion, was the pullet in pen 159 (Leno). She is of the Silver-Grey strain, perfectly pencilled all over, and has the most beautiful head. It was a pity that she was badly matched with a narrow cockerel.

In the class for Light Brahmas the best pen came first, Mr. Wakefield winning both first and second. His first-prize cockerel was a perfect bird in form and feather, with glossy black tail, the pullet being only excellent in neck-hackle. We should have mated the second pullet with the first cockerel. The third-prize cockerel was remarkable for extraordinary foot-feathering. The cockerel in the fourth pen was large, grand in shape, and well feathered, but very deficient in marking of neck-hackle. Pen 187 (Dean) very neat, but not up to such competition in size. We noticed many otherwise nice pullets spoilt by dark speckling on the back.

Game would have been a show by themselves—nearly two hundred pens in six classes. First on the list as winner of the cup for a Black Red cockerel comes Mr. Matthew; other exhibitors seem to have their day or year of success, but Mr. Matthew's triumphs are perennial. His cup bird was superb all round, distancing his thirty rivals, especially in the snake-like head. The second was an admirable bird, long and strong in limb. A local exhibitor, Miss Osborn, was deservedly third. Black Red pullets were thirty-one in number, as well as the cockerels. Major Newdegate was first with a most elegant bird, which we observed was claimed at £8 8s. Brown Reds mustered twenty-four cockerels and thirty-seven pullets. We thought these the best of the Game classes. Here again Mr. Matthew was first in pullets, his winner matchless in form and condition. In the classes for Any other variety were shown nineteen

cockerels and twenty-four pullets. The quality in these classes did not strike us as being so good as in the others, especially so in that for cockerels; of these the cup and second-prize birds were Duckwings, the third a rich Pile. In the pullets, the cup and third prize went to Duckwings, the second to a rich stylish Pile.

Hamburghs.—The five varieties each had their three-guinea cup, and a goodly collection they were. We much regret the artificial embellishments to which this breed is subject, and which in the case of the combs of the Pencilled cocks seem almost necessary to success. Many careful breeders and true fanciers do not show for this reason, but while judges connive at it and give prizes to cocks with combs carved after a uniform model, what can be expected? We purposely abstain from mentioning particular instances of this trimming, as the offenders are many and have much encouragement.

In Golden-pencilled (twenty-nine entries), the cup went to a pair, the cock of which was very rich in colour but deficient in growth of sickles. The second and third-prize pens also contained beautifully-shaped cockerels. Pen 401 (Long), perfect in points must have been thrown-out for want of condition. The local prize went to a poor pair, the ground colour of the pullet being of two shades. The cup for Silver-pencilled (fourteen entries), went to a faultless pair; the cockerel's comb might, perhaps, have been prettier, but it was refreshing to see one in the form in which Nature constructed it. The second-prize pair lacked the style of the first, though the cockerel's sickles were handsomer; third would have been higher had the pullet's neck-hackle only been clearer. Pen 419 (Long), had a very neat cockerel.

Golden-spangled (twelve entries).—We regret to record that the cup for this variety after having been (to first sight deservedly), given to a perfect pen, was subsequently, in consequence of a protest, withheld by the Judge from it on account of the cockerel's breast having had the trimmer's scissors carefully and artistically applied round each feather. In justice to the owner it must be said that he asserted that he had but lately claimed the bird and that from the very person who protested against the award, and that it had not been tampered with in his possession. The cockerel in the second-prize pen was coarse in comb.

In Silver-spangled (fifteen entries), the cup pen contained a pullet which was perfection in spangling, the cockerel devoid of spangle at the end of one sickle—a decided blemish. The cockerel in the second-prize pen was not entirely free from red in earlobes. The third cockerel was too wide in comb, and had a faint suspicion of colour on the wing, but his sickles were exquisite. The cup for the local exhibitor of the best pen of Hamburghs went to a pair in this class.

Black Hamburghs (sixteen entries), were pretty as usual. We were rather surprised to see cards on nine out of the sixteen pens. Mr. Serjeantson's cup birds were very neat in comb and good in colour. The very highly commended pen struck us as equal to the second and third birds. Pen 465 (Leake) were fortunate to obtain high commendation, being somewhat red in earlobes.

Polands were divided into two classes—viz., Black with White Crests, and Any other variety. Five pens alone appeared in each class, and in the Black class two of these were too late for competition. Mr. Darby was first, his pullet an exquisite bird; and we do not think this award would have been altered if Mr. Unsworth's birds had been in time, for though one of his cockerels was in tuft the best bird in the class, he was wry-tailed. The second-prize pair would undoubtedly have succumbed to the late arrivals, for the pullet had a poor tuft, flat behind. In the class for Any other variety Mr. Adkins carried off all the prizes with Silvers. A rich-coloured pair of Golden (Fearnley), were unnoticed, and must, we think, have arrived too late.

Houdans seem in popularity to distance too far their French cousins. They filled forty-two pens, and the Judges showed their approval of the class by noticing twenty-two of them and by giving an extra prize. In the earlier numbers of the class light colour prevailed, such as one saw on the birds first imported. The first-prize cockerel was a noble bird, a thorough French Houdan with good crest; the pullet by herself must have given way to others. We preferred Mr. Wood's third-prize pen to his second. They were good all round, while the second-prize pullet had a Polish look, her crest being very light and her general colour dark. Miss Neville's pen, to which an extra third was awarded, contained a grand pullet, the cockerel, however, rather narrow. Mr. Dring's highly commended pair were fine birds, almost too dark in colour. 491 and 493 (Quibell) were perfection of colour; 497 (Fowler) contained a very big cockerel but bow-legged.

Any other variety *French* (fourteen entries) resolved itself into a class for Crêves, for not a single pen of La Flèche or any other kind appeared. First and second were marvellous pairs, probably the finest Crêve chickens ever seen. If we must criticise, the first cockerel had a few white feathers in his crest, but no good judge could pass over such birds for such a trifling defect.

We should have preferred both pens with shorter legs; a Crève cock used to be shown by Mr. Siebel, which we always admired as the perfect type of Crève for his shortness of leg. Mr. Dring was third with birds which would a short time ago have carried all before them.

Malays (seventeen entries) put in a most creditable appearance. The cup pair were immense in limb and good in colour; the cockerel in the second-prize pen would have looked better without a featherless spot on his crop; third were Whites, if such we can call them, for the cockerel had red on the wing and the pullet brown on the breast. We were very glad to see Whites, and suppose that the Judge awarded them a third prize to encourage fanciers of the variety; we should have given third to pen 545 (Bradford).

American Fowls (seventeen entries), are emerging from the Variety class, and had a class to themselves. The White variety of Leghorn seems superior to the Brown. Mr. R. Fowler won the cup with a White pair; the cock had a very gamey look. We cannot admire the sickly yellow tinge of these birds' earlobes, very like that of a carp's scales, but suppose it is a necessary accompaniment of yellow legs. Second were Plymouth Rocks, the cock somewhat scaly in feet; third, White Leghorn again. Two nice pens were disqualified from the owner having evidently through inadvertence left their home marks on their legs.

White Silkies were probably the best collection of this variety ever seen. How the standard has improved since the Oxford Committee two years ago liberally gave them their first class, and how have exhibitors improved in getting them up! Mr. Woodgate, of course, took the cup in this class as well as for White Cochins. The second-prize birds were very white but lighter in earlobe than we like. The third hardly merited their position. Pen 569 (Watts) contained a four-clawed hen, which the Judge must have overlooked in giving them a high commendation.

Any Other Breed (ten entries).—From the multitude of classes few were left for the Variety class. First were a lovely pair of White Minorcas in blooming condition. How pretty are their white legs and faces after the Leghorns! Second Sultans; third a good pen of Cuckoo Dampies, the pullet, however, far too long in leg. Black Minorcas and White Guinea fowls were highly commended.

Bantams had six classes. For Black Reds there were thirty-one entries. The awards seemed unexceptional, and the highly commended pens were all worthy of prizes. Brown Reds only matured thirteen pairs; the winners were all good and well shown. The chief feature of the class for Any other variety Game was the large number of Piles which appeared, many of them of great beauty. The cup went to a perfect pair, second and third being given to Duckwings. The class for Black Clean-legged Bantams was excellent. The cockerel in the cup pen reminded us rather too much of the Hamburgs' combs aforementioned. Twenty-one pairs in all were shown.

In *Sebrights* (seven entries), Mr. Leno, strange to say, was not first. Mr. Braund's first-prize birds were Golden, very regular in lacing, and good in colour. Mr. Leno's second were Silvers, particularly clear in ground colour. In the class for Any other variety of Bantams, Japanese were first, the cock a beautiful bird, white with a magnificent black tail; they were soon claimed at their modest price, three guineas. Pekins were second, and White Clean-legged third. We should prefer seeing the latter variety compete with Blacks, their points, barring colour, being all the same.

Ducks.—Mr. Fowler carried off all three prizes in Aylesburys with such birds as only Aylesbury can produce. Twenty-two pens of Rouens competed. The cup pen were easily first, and of great merit. All three prizes for Black East Indians went to one exhibitor, and deservedly too; they were wonders in colour, condition, and closeness of feather. The old exhibitors are all left behind by Mr. Sainsbury. By the liberality of a lady a class was provided for Call Ducks; nine pens appeared, all Whites. We wish other people would follow the example of this lady. One hears too much now of "paying" classes, and many lovely breeds have become neglected from being always relegated to the hazard of Variety classes. We should not have liked to judge this class, so little apparent difference was there in the birds. It was to be regretted that none of the Coloured variety were shown—those lovely miniature Mallards.

Turkeys were fine, but struck us as looking cramped even in their large pens, and many had broken tails.

In *Geese* Mr. Fowler again carried off the cup with a gigantic pair of Embden. Truly Mr. Fowler's Geese are all Swans, though not in the ordinary sense of that phrase. His Toulouse second were almost equally grand. The third-prize pair came from Blenheim. It would be impossible to criticise the awards in the Selling classes of 220 pens; they were on the whole of extraordinary excellence, and the bargains were many, of which fanciers seemed to avail themselves as never before at Oxford.

If this report of the poultry is somewhat lengthy, our apology must be that it is not easy to do justice to a thousand and odd pens of such birds in any cursory remarks. We seem to have

entered upon a new era of poultry-showing. Each variety is bred up to such excellence that few exhibitors can safely indulge in more than one or two, and the day seems quite past in which any one person can sweep the board as formerly did Mrs. Arbuthnot and others in a dozen breeds.

PIGEONS.

Carriers had five classes. First in the catalogue came Mr. Fulton, and first in the prize list too, with a Dun cock perfect in condition and points. Mr. Yardley was second with a Black, and Mr. Fulton again third with a Black less in wattle than his first-prize bird, but evidently younger. The prizes in this class (for Black or Dun cocks) were all well placed. Pen 1021, very highly commended, contained a good Dun; and Col. Hassard's highly-commended bird, though small in wattle, was magnificent in form. In the class for hens Mr. Yardley's first-prize bird had, for a hen, marvellous wattle. In the classes for Any other colour we specially noticed the first and third hens (Mr. Hammock's) for their extraordinary length; they were Blue. The class for young birds was the best in the Pigeon Show. There were twenty-nine entries, and the Judges must have had much trouble in making their awards. First was a dark Dun, second a Black, third a Dun, and extra third a splendid Blue.

Pouters had but two classes—viz., for cocks and hens of any colour. In cocks Mr. Bullen was first with a beautiful White, which we observed was claimed at £10. Mr. Fulton was second and third with respectively a Blue and a Yellow, both of which were much admired. In hens a White again was first, and justly so; a very good Yellow third.

Barbs were shown in pairs. In the class for old birds a small and good pair of Blacks were first, Blacks also second, and Reds third—grand birds, but the cock apparently rather antique. The class for young birds did not contain many or remarkable specimens.

Tumblers had three classes. The Almond class mustered better than usual—viz., nine pairs, many of them old friends and good. The production of Almonds seems too much of a science to extend itself in the fancy. In the Any variety Short-faced class good Black Kites were first, Agates second (we feared two cocks), Red Mottles third. In the Long-faced class Mr. Mapplebeck was first with well-marked Red Mottles, second were Black Balde, and third Feather-footed Reds.

Dragoons seem fashionable at present. The class for Red or Yellow was marked by the Judges "very good." That for Any other colour contained thirty-five entries. The first, Silvers, were a striking pair, to all appearance two cocks; second were Whites, and third Blues.

In *Antwerps* the first pair were excellent, Red Chequers second, and third Silver Duns.

Runts were obliged to be divided, cock and hen in each entry being in separate pens. Mr. Green's well-known Blue birds were first, judged, we believe, by weight.

Owls were properly divided into English and Foreign. The English class, though large, struck us as not being very good. First and third were Silvers, second Blue. Mr. Edge had a nice pen of Whites very highly commended, and Mr. Fulton a curious pair of Mottled Yellows highly commended. In the Foreign class first and second were White; pen 1281, highly commended (Wylie), a pretty pair of Whites with blue tails.

Nuns seem to have more admirers theoretically than practically. We suspect this is owing to the gross trimming to which at one time they were subjected, but which we are glad to see is falling into disuse. Seven pens appeared. The winners of first and third prizes were black-headed, those of second red-headed and very good.

Turbits had two classes to themselves, and excellent they were. The breed seems to be popular and bred up to a high standard. The first class was for Red or Yellow. First and second were Yellows, and of nearly equal merit; the first were most clean in thigh, the second brighter in colour; third were Reds with fine heads. The pair of Yellows very highly commended (Cresswell), though paler in colour than the winning Yellows, had magnificent frills. The class for Any other colour was marked by the Judges as "very good." First were beautiful Blacks, very rich in colour; second well-known Silvers, the hen far too brown to please us; third neat Blues; very highly commended another good pair of Blacks; pen 1303 (Smythe) nice shell-crested Blues. As shell-crested birds always compete to disadvantage with peak-headed, why should not others follow the example of the Newcastle Committee and give them a class?

Fantails were an excellent class, but we regretted to see them all of the large English type. The winners were all Whites. A curious blue-shouldered pair received more than their deserts in a commendation.

Jacobins were a large class. Mr. Fulton's first Reds were wonderful in hood. A non-fancier would hardly believe that Nature provided them with so artistic an ornament. Second were somewhat coarse Yellows, third Reds. Why an exquisite pair of Whites (Mr. Baker's) did not win, was to us a mystery.

Trumpeters become fewer and fewer. Alas! for the lovely

Whites which were shown a few years ago, and which seem to have almost become extinct since the importation of Russians. Will not some show be adventurous and divide Trumpeters into Russian and English? There were but five entries. First were Blacks far ahead; second Mottles, good in rose but deficient in foot-feathering; third Mottles, or rather Splashed Whites, good in everything but colour.

Maggies, as usual at Oxford, mustered well. The first and second were Blacks, and beautifully defined was their marking; third were Yellows.

The Any other variety class was not a large one. First were gorgeous Archangels, which threw their neighbours, a nice pen (1375, R. Woods), into the shade; second were good Red Frill-backs; third Scandaroons, gaunt-looking creatures. The Selling class contained but one good pen, a pair of White foreign Owls, which took first prize, and were soon snapped-up.

THE FIRST-PRIZE DORKINGS.—Having heard from two different parties that certain persons said the cockerel was hump-backed, wry-tailed, &c., I, on getting to Oxford the second time, again took this bird out of the pen and failed to find anything the matter with it except that it was evidently not as well as when I left it after judging; in fact, just before I left on Wednesday midday. It was with regret I saw that now its comb was sadly disfigured, and certainly was considerably bruised on both sides, as though wrenched on the head. Of course I cannot say how this occurred, but I never saw a case like it before.—EDWARD HEWITT.

NEWCASTLE-UPON-TYNE POULTRY SHOW.

We have been favoured by two correspondents with the following reports:—

In Class I, *Cochins*, Any colour, cockerel and pullet, first came a beautiful pair of Buff; second a grand pair of Partridge. The whole class was very good. In *Brahmas*, Any colour, cockerel and pullet, were several very beautiful pullets, but not one good cockerel. Messrs. Ainsdell's and Hon. Mrs. Baillie Hamilton's pens were empty. *Dorking* chickens, Any colour—the first-and-cup pair was the best we have seen this season; the second good, but young, very large, and not made up. The prize pens were both Dark-coloured. A very grand pair of Silver-Greys and one of Whites were very highly commended. In *Spanish* chickens the winners were far ahead of the others; the second-prize birds grand in quality, but younger than the first. *Polish* were old and young together; the first were well-known Gold, the second Silver; a very good pair of Golden chicks were very highly commended. All the *Hamborough* classes were remarkably good, the cup going to a splendid pair of Silver-spangled. *Game*, Any colour, over a year old, with the exception of the first Brown Reds and the second-prize which were Black Reds, were not good. In *Game* chickens the cup went to Brown Reds; the second prize to neat Black Reds. The class was a very good one.

Game Bantams were, as we expected, worth a long journey to see, the neighbourhood being celebrated for them. Black or Brown Reds over a year old had twenty-two entries, with scarcely an inferior pair in the class. The prizes went to Black Reds. Cockerel and pullet, Black or Brown Reds, twenty-five entries, were a splendid lot. The cockerel in the cup pen is a gem; the second-prize pair were also grand in style. In the *Game Bantams* other than Reds, over a year, the first were a beautifully coloured pair of Duckwings, the second Piles. The class was good throughout. *Game Bantams* other than Reds, cockerel and pullet—first a grand pair of Piles, second Duckwings of first-rate quality. A grand pair of Piles were in this class very highly commended. The whole class was good. For *Bantams* other than *Game*, the first were Silver-laced, the second Blacks.

The *Aylesbury Ducks* had only three entries, all of them good. The next class was a mistake, all the varieties except *Aylesbury* being shown together. The prizes went to most excellent *Rouens*; two good pairs of *Mandarins* and one of *Rouens* being very highly commended.

In the class for Any other variety of poultry the first were good Black *Hamboroughs*, the second *Houdans*. The poultry were in splendid condition, were fed on Spratt's food, and well attended to by an obliging Secretary and Committee.

PIGEONS.—As hitherto the great feature of the Exhibition was, the Pigeon department, the entries numbering 691 pens.

In the *Pouter* classes the cup went to a splendid Blue cock in perfect condition, in a keen competition. Blues also took all the prizes in the classes for Blue or Black. In those for Red or Yellow cocks, a fine Yellow was first and Red second; while in the class for hens a rather gay but very showy Red was first, and a capital Yellow second. Several other good Yellows competed. In *Pouter* cocks, Any other colour, the first prize was taken by a very fine lengthy White, a grand Mealy being second. In the class for hens both prizes were awarded to good Whites.

In *Black Carriers* Mesars. Yardley and Fulton took the prizes with good birds. In *Carriers*, Any other colour, Mr. Fulton was also successful with magnificent Duns; the sectional cup going to this exhibitor's first-prize cock. In the young *Carrier* class both prizes went to very promising Duns.

Dragoons, Blue or Silver, were numerous, but not particularly strong in quality. The first and cup were awarded to a stylish Blue, a good Silver second. In *Dragoons*, Red or Yellow, an even lot competed; the first a good Yellow, Red second. In *Dragoons*, Any other colour, a splendid Grizzle was first, and White second.

For *Short-faced Tumblers*, Almonds, the prizes went to first-class birds, well shown, several pens receiving notices. In *Short-faced Tumblers*, Any other variety, cocks, an exquisite Kite was first, and Black Mottle second. In hens the same colours took the prizes in the order named.

In *Barb* cocks the first and sectional cup was given to an excellent Dun; Black second. In hens a good Black was first, and Yellow second.

Foreign Owls were scarcely so good as we expected. In the class for Any other colour except Blue or Silver, a good White was first, and a nice sound-coloured Black second.

In *Mottled Trumpeters* Mr. Lederer took first and sectional cup, with a bird capital in points, though slightly deficient in mottling. Splendid Blacks, all of the Russian type, took the prizes in the other class.

In *Fantails*, White, the first prize was awarded to an extraordinarily good bird in a strong class. For Any other colour a good Blue was first, Black second.

In *Jacobins*, Red or Yellow, Red took both positions, the first going to a very small Red, which also had the sectional cup. The class for Blacks also contained good birds. In *Jacobins*, Any other colour, a beautiful White was first.

Turbits were large classes, but do not require particular notice. *English Owls* were well represented, the first and sectional cup was awarded to a Blue of great merit in every respect; a capital Silver taking second. The class contained many other good birds, the foreign cross being now exhibited much less than formerly.

Maggies and *Nuns* were ordinary classes.

In *Short-faced Antwerps* Mr. Gamon had the first and cup with a wonderful Red Dapple. The second was a good Silver Dun. In *Long-faced* both prizes went to good Red Dapples.

Long-faced Tumblers had three classes, which were well filled with good specimens.

In Any other variety the first was a Black Turbitten; second a Damascus.

COCHINS.—*Chickens*.—1 and *vhe*, G. H. Procter, Durham. 2, J. Leeming, Broomfield. *hc*, G. U. Foreman, Gosforth; C. Turner, Worton; D. & J. Ibbotson, Wharby; T. M. Derry, Gedney; J. Batey, jun., Hexham. *c*, G. Pounder, Kirby Moorside.

BRAHMA POOTRAS.—*Chickens*.—1, J. Hardman, Bacup. 2 and *c*, C. Venables, Durham. *hc*, C. Venables; J. Watts; M. S. Temple, Hexham; Lady A. B. Peirse, Bedale.

DORKINGS.—*Chickens*.—1 and *cup*, C. Widdas, Howden-le-Wear. 2, G. Pounder, *hc*, J. Stephenson, Chapelhall; W. Moritt, Goole. *hc*, G. Parker; J. White, J. Robinson, Garstang.

SPANISH.—*Chickens*.—1 and *cup*, H. Beldon, Bingley. 2, J. Leeming, *hc*, C. A. Kay; J. Thresh, Brailford; J. Gliddon, Bristol.

POLISH.—1 and 2, H. Beldon. *hc*, T. Dean, Keighley. *hc*, J. Fearnley, Newton-le-Willows; P. Unsworth, Loxton.

HAMBOROUGH.—*Golden-spangled.*—*Chickens*.—1, G. & J. Duckworth, Church. 2, J. Robinson. *hc*, J. Roberts, Burton Holmes; J. Crawford, H. Beldon.

Silver-spangled.—*Chickens*.—1, 2 and *cup*, H. Beldon. *hc*, J. Roberts, Ashton at Booth; Mottram; J. Walker, Ripley; J. Robinson, *c*, G. Stalker, Bedlington.

HAMBOROUGH.—*Golden-pencilled.*—*Chickens*.—1, G. & J. Duckworth, 2, H. Beldon. *hc*, Ashton & Booth; G. & J. Duckworth; W. Clayton; T. W. Fawcett; H. Beldon. *c*, W. Dixon, Derby. *Silver-pencilled.*—*Chickens*.—1, H. Beldon. 2, J. Louf, *hc*, J. Robinson; H. Beldon.

GAME.—1, G. C. Wilson, Malmthorpe. 2, J. Harrell, Sunderland. *hc*, Miss M. J. Nelson, Hexham. *Chickens*.—1 and *cup*, W. Higgin, Ulverston. 2, H. Beldon. *hc*, W. Omerod, Todmorden; Miss M. J. Nelson; J. A. Mather, Close Green; J. Pattison, Beside Colliery; J. Stark, Morpeth; Master J. Midlemis, Seaton Delaval. *c*, Miss M. J. Nelson.

GAME BANTAMS.—*Black or Brown Reds*.—1, W. F. Addie. 2, J. Barlow, Monkwearmouth. *hc*, Miss M. J. Nelson (2); G. Bell; J. W. Brookbank, Carforth. *c*, D. Hunter, Sunderland. *Chickens*.—1 and *cup*, W. F. Addie. 2, J. Ferry, Cowpen. *hc*, J. Barlow; W. Rogers, Sunderland; G. Downe, Bedlington; J. Short, Bedlington; W. Murray. *c*, Miss M. J. Nelson; W. & H. Adams, Bedale.

ANY OTHER BANTAMS.—*Any other colour.*—1, Miss M. J. Nelson. 2, W. Gray, To & Law. *hc*, J. Burnop, Lintz Green. *c*, W. Murray; R. Sanders, Newcastle. *Chickens*.—1, Mrs. J. Dye, Hexham. 2, Miss M. J. Nelson. *hc*, W. Rogers; R. Brownlie, Kirkcaldy. *hc*, J. Burnop; Miss M. J. Nelson; W. Gray; J. W. Brookbank; P. Unsworth. *c*, J. Louf.

BANTAMS.—*Any other variety except Game.*—1, H. Beldon. 2, T. P. Carver, Boroughbridge. *hc*, Miss M. J. Nelson; W. Canney, Bishop Auckland; J. Mayo, Gloucester.

ANY OTHER VARIETY EXCEPT TURBENS AND GEES.—*Pair*.—1, H. Beldon. 2, H. Beldon. *hc*, Miss M. J. Nelson; J. Wilkinson, Bedlington Colliery; W. Robson, Deptford.

DUCKS.—*Aylesbury.*—1, W. Stonehouse, Whithy. 2, T. P. Carver. *c*, W. Canney. *Any other variety.*—1, W. Swann, Bedlington. 2, Miss M. J. Nelson. *hc*, J. Jackson, Carnforth; W. Canney; R. Johnson, Sunderland. *hc*, W. Canney; R. Johnson; F. B. Fenwick, North Shields. *c*, G. Cartmel, Kendal.

ANY OTHER VARIETY EXCEPT TURBENS AND GEES.—*Pair*.—1, H. Beldon. 2, H. A. Cave, *hc*, Miss G. B. Elliott, Newcastle. *hc*, J. Louf; Stott & Booth, Bury; J. S. Routh, Chesterfield; S. P. Brook, Reigate. *c*, E. Symons, Hebburn New Town.

SELLING CLASS.—*Price not to exceed 40s. per Pair.*—1, A. Widdas, Darlington. 2, J. Hardman. *hc*, G. Pounder; J. Walker; T. P. Carver; G. H. Procter; H. Beldon. *c*, J. A. Brook, Holmthorpe.

SELLING CLASS.—*Price not to exceed 30s. per Pair.*—1, A. Widdas. 2, J. Paterson. *hc*, S. H. Lloyd, Maghull; Hedley & Ridley, Hexham; H. Beldon. *c*, M. Graham, Bedale.

PIGEONS.

POUTERS.—*Blue or Black.*—Cocks.—1 and Cup, H. Pratt, Birmingham. 2, H. Simpson, Crumlington. *hc.* R. W. Bryce, Edinburgh (2); H. Simpson; R. Fulton, London; Ridley & Dye, Hexham; E. Beckwith, Sunderland. *Hens.*—1, J. Baker, London. 2, H. Simpson. *hc.* R. W. Bryce; R. Fulton; Ridley & Dye (2).

POUTERS.—*Red or Yellow.*—Cocks.—1, Ridley & Dye. 2, R. W. Bryce. *hc.* N. Hill, Edinburg; R. Fulton; Ridley & Dye. *Hens.*—1, R. Fulton; E. Beckwith. *Hens.*—1, R. Blacklock, Sunderland. 2, H. Pratt. *hc.* R. Fulton. *hc.* Ridley & Dye; G. Robinson, Sunderland; E. Beckwith.

POUTERS.—*Any other colour.*—Cocks.—1, R. Fulton. 2, Ridley & Dye. *hc.* H. Pratt; Mrs. Ladd, Calne; Ridley & Dye; E. Beckwith. *Hens.*—1, Ridley & Dye. 2, R. Fulton. *hc.* H. Pratt; Mrs. Ladd; R. Fulton; Ridley & Dye.

CARRIERS.—*Black.*—Cocks.—1, H. Yardley, Birmingham. 2, R. Fulton. *hc.* R. Fulton; E. Beckwith; P. R. Spencer, Hereford. *Hens.*—1 and *hc.* R. Fulton. 2, H. Yardley. *hc.* W. Sefton.

CARRIERS.—*Any other colour.*—Cocks.—1, 2, and Cup, R. Fulton. *hc.* E. Beckwith. *Hens.*—1 and 2, R. Fulton. *hc.* W. Sefton. *hc.* A. Beckwith; A. Bilyeald, Nottingham; W. Sefton.

CARRIERS.—*Young Cock or Hen.*—1, R. Fulton. 2, W. Bulmer, Spalding. *hc.* R. Fulton; A. Bilyeald; A. N. Dodds, North Shields; W. Sefton (2).

DRACONS.—*Blue or Silver.*—Cock or Hen.—1 and Cup, W. Smith, Walton. 2 and *hc.* F. Graham, Birkenhead. *hc.* H. Yardley; R. Fulton (2); W. Sefton. *c.* R. W. Richardson, Beverley.

DRACONS.—*Red or Yellow.*—Cock or Hen.—1, W. Sefton. 2, F. Graham. *hc.* R. W. Richardson; A. Jackson, Bolton-le-Moors; F. Graham; W. Sefton.

DRACONS.—*White, or any other colour.*—Cock or Hen.—1 and 2, F. Graham. *hc.* G. Hardy, London; G. D. Pickersgill, Lippin; W. Sefton. *c.* A. Jackson; R. Robson, Chester-le-Street.

TUMBLERS.—*Short-faced Almond.*—Cocks.—1, Cup, and *hc.* R. Fulton. 2, E. Beckwith. *hc.* H. Yardley; Miss A. M. Anderson, Newcastle; J. Stephenson, Gateshead; E. Beckwith. *Hens.*—1 and 2, R. Fulton. *hc.* J. Baker.

TUMBLERS.—*Short-faced, any other colour.*—Cocks.—1, J. Baker. 2, R. Fulton. *hc.* R. Fulton; E. Beckwith (2). *Hens.*—1, 2, and *c.* E. Beckwith. *hc.* R. Fulton; J. Baker.

TUMBLERS.—*Almond, or any other colour.*—Cock or Hen.—1 and 2, E. Beckwith. *hc.* R. Fulton.

TUMBLERS.—*Cocks.*—1, 2, and Cup, R. Fulton. *hc.* J. Baker. *hc.* E. Beckwith (2). *c.* W. Brydone, Dunae. *Hens.*—1 and 2, R. Fulton. *hc.* H. Yardley. *c.* W. Brydone.

OWLS.—*Foreign, Blue or Silver.*—Cock or Hen.—1, T. Rule, Durham. 2, R. Fulton. *Foreign, White or any other colour.*—Cock or Hen.—1, G. Alderson, West Hartlepool. 2, W. Brydone. *hc.* R. W. Bryce; W. Brydone.

OWLS.—*English.*—Cock or Hen.—1 and Cup, J. Gardner, Preston. 2, A. N. Dodds. *hc.* J. Watts; Ward & Rhodes, Ouley. *hc.* T. W. Clemenson, Hexham (2); E. Walker; T. Charnley, Blackburn.

TURBATS.—*White.*—Cock or Hen.—1 and Cup, J. Lederer, Liverpool. 2, R. Fulton. *hc.* J. Lederer. *Any other colour.*—Cock or Hen.—1 and 2, R. Fulton. *hc.* C. A. Van der Meersch.

FANTAILS.—*White.*—Cock or Hen.—1, E. Beckwith. 2, J. F. Loversidge, Newark. *hc.* Miss A. M. Anderson, Newcastle; J. F. Loversidge; J. Walker; A. Smith, Broughty Ferry (2). *Any other colour.*—Cock or Hen.—1, H. Yardley. 2, Q. Blum, Manchester. *hc.* H. C. Bowman, Manchester. *c.* J. Kemp.

TURBATS.—*Red or Yellow.*—Cock or Hen.—1 and Cup, T. Rule. 2, R. Fulton. *hc.* R. W. Bryce; G. Hardy; R. Fulton; W. Brydone; T. W. Swallow, Northampton; J. Thompson, Bingley. *Black.*—Cock or Hen.—1, R. Fulton. 2, T. Rule. *hc.* R. W. Bryce; R. Fulton; J. Baker. *Any other colour.*—Cock or Hen.—1, W. B. Van Haasbergen. 2, T. Rule. *hc.* G. Hardy; T. Rule; A. A. Vander Meersch, London (2).

TURBATS.—*Red or Yellow, Point-headed.*—Cock or Hen.—1, T. Gallon, Gateshead. 2, T. S. Stephenson, Beverley. *hc.* T. Foster, Bingley. *hc.* A. & W. H. Storer, Sheffield; R. Fulton; J. G. Orr, Reith; C. Anton, Petergate, York. *Any other colour.*—Cock or Hen.—1, G. Hardy. 2 and *c.* M. S. Temple, Hexham. *hc.* Miss A. M. Anderson; R. W. Richardson; J. Baker; R. Robson. *c.* M. S. Temple.

TURBATS.—*Bed or Yellow, Shell-crowned.*—Cock or Hen.—1 and 2, T. Gallon. *hc.* W. Moore, Pickering; T. Foster. *Any other colour.*—Shell-crowned.—1, Ridley & Dye. 2, G. Hardy. *hc.* M. Green, Hexham.

MACPIES.—*Red or Yellow.*—Cock or Hen.—1, P. Wilson, Morpeth. 2, J. B. Bowdon, Blackburn. *hc.* T. Gallon; J. Thompson. *Black, or any other colour.*—Cock or Hen.—1, J. B. Bowdon. 2, R. Fulton. *c.* P. Wilson.

NUNS.—*Cock or Hen.*—1 and 2, A. A. Vander Meersch. *hc.* J. Young, Bishop Auckland. *hc.* R. W. Richardson; J. B. Bowdon; W. B. Van Haasbergen.

ANTWERPS.—*Short-faced, any colour.*—Cock or Hen.—1 and Cup, W. Gamon, Chester. 2, J. Gardner. *hc.* H. Yardley; J. Wright, Manchester (2); T. Jubb. *Long-faced, any colour.*—Cock or Hen.—1, R. J. Smith, Yarm-on-Tees. 2, T. H. Stretch, Ormskirk. *hc.* A. N. Dodds; J. Robertson, Thornton; Ridley & Dye.

TUMBLERS.—*Long-faced Almonds.*—Cock or Hen.—1, T. Mitcheson, Swallowfield. 2, Ridley & Dye. *hc.* E. Beckwith; Guthrie & Hope; J. Buchanan, Newcastle; M. Green. *c.* Kinghorn, Gateshead. *Long-faced Buds.*—Cock or Hen.—1 and 2, A. Jackson. *hc.* J. Watts. *c.* W. J. Donkin, Newcastle; G. D. Pickersgill. *Long-faced Beards.*—Cock or Hen.—1, Ridley & Dye. 2, J. G. Thompson, Newcastle. *hc.* R. Fulton; Ridley & Dye (2); A. Jackson. *c.* E. Beckwith.

ANY OTHER VARIETY.—Cock or Hen.—1, R. Fulton. 2, H. Yardley. *hc.* H. W. Lower, Sydenham. *hc.* A. & W. H. Silvester. *c.* M. Ord, Seelgheld.

SELLING CLASS.—Cock or Hen.—1, Mrs. Ladd. 2, W. H. A. Miller, Walsend. 3, J. Jones. *hc.* A. Hogg, Newcastle; J. Baker; J. Robshaw; G. B. Pickersgill. *c.* E. Beckwith (2). *Pair.*—1, C. Anton. 2, S. Lawson, Preston. 3, W. Brydone. *hc.* Guthrie & Hope, Hexham; E. Beckwith. *c.* A. Hogg.

CANARIES.
BELGIANS.—*Yellow or Yellow-marked.*—1, Medal, and 2, J. Rutter, Sunderland. *hc.* W. Scott, Willington Quay; J. Rutter. *c.* T. Harrison, Darlington. *Buff or Buff-marked.*—1, 2, and *hc.* J. Rutter. *c.* W. Scott.

NORWICH.—*Yellow.*—1 and 2, G. Sarge, Sunderland. *hc.* J. Allison, Long Benham; C. Robson, Burradon. *Buff.*—1, G. Sarge. 2, Cleminson & Ellerton. *Darlington.* *hc.* J. Spence, South Shields. *hc.* C. Robson. *Yellow or Buff-marked.*—1 and Medal, T. Cleminson. 2, T. Harrison. *c.* J. Soulsby, Cuxlode.

CRESTED.—*Yellow or Yellow-marked.*—1, Cleminson & Ellerton. 2, R. E. Triffitt, York. *Buff or Buff-marked.*—1, F. Knaggs, Newcastle. 2, J. Baxter, Newcastle. *hc.* J. Hurrell, Sunderland. *hc.* R. E. Triffitt; J. Hurrell; J. Baxter. *c.* T. Cleminson, Darlington.

GLASSBORO DRESS.—*Yellow.*—1, Medal, and 2, W. Clark, Newcastle. *hc.* T. Blackburn, Newcastle. *hc.* J. Murray. *Buff.*—1, W. Clark. 2, H. Frazer, Newcastle. *hc.* F. Campbell. *White.*—1, K. Gillespie, Blaydon. *Yellow or Buff-marked.*—1, W. Clark. 2, H. Frazer. *hc.* J. Davison, Newcastle. *hc.* Brown and Hackworth, Newcastle; T. Blackburn. *c.* P. Campbell; F. Ayre, Newcastle.

LIZARDS.—*Gold or Silver-spangled.*—1, Cleminson & Ellerton. 2, J. T. Harrison.

GREEN VINCH MULES.—*Yellow or Buff, nearest to Canary.*—1, J. Purdy, Ashington Colliery. 2, R. Laws. *Yellow or Buff-marked.*—1, J. Baxter. 2, J. Soulsby. *hc.* J. Baxter.

CINNAMON.—*Yellow or Yellow-marked.*—1, Cleminson & Ellerton. 2, J. Spence. *hc.* R. E. Triffitt. *hc.* J. Gillespie, Newcastle; J. Thackeray, Bradford; M. Dana, South Shields; J. Rutter. *c.* C. Robson; J. T. Harrison. *Buff or Buff-marked.*—1, T. Harrison, Willington Quay. 2, J. Rutter. *hc.* J. Gillespie. *c.* W. C. Burmiston, Middlesborough.

GREEN CANARY.—1, A. Ross. 2, H. Armstrong. *hc.* J. Allison; A. A. Ross, Newcastle; F. Duison, Newcastle. *hc.* H. Armstrong, Newcastle. *c.* M. Spours, Newcastle.

COMMON CANARY.—1, Brown & Hackworth. 2, J. Thackrey. *c.* J. Thackrey; J. Murray.

GOLDFINCH.—*Moulted.*—1, W. & C. Burmiston. 2, G. Stephenson, Gateshead. *c.* W. Bishop, Gateshead.

BROWN LINNET.—*Moulted.*—1, J. Baxter. 2, G. Stephenson. *hc.* J. Maddison, Hexham.

BURTON BIRDS.—*Any other variety.*—1, R. Pearson. 2, J. T. Harrison. *hc.* J. S. Stark, Newcastle; W. & C. Burmiston; R. Neil, Hewick.

FOREIGN BIRDS.—1 and Medal, A. J. Dancy, Gateshead. 2, W. Maxwell, Newcastle. *hc.* T. Mitford, Newcastle; J. S. Stark; W. Luley, Newcastle (2); E. Price, Newcastle. *c.* E. Price; R. A. Wood, Gateshead.

SELLING CLASS.—1, J. Spence. 2, Fleming & Stanhope, North Shields.

JUDGES.—*Poultry.* Mr. R. Teebay, Preston, Lancashire. *Pigeons.* Mr. P. H. Jones, Fulham, London; Mr. T. J. Charlton, Bradford. *Canaries.* Mr. W. A. Blakston, Sunderland.

BLAIRGOWRIE POULTRY SHOW.

THIS was held on the 4th and 5th inst., when the following awards were made:—

GAME.—1 and Cup, T. W. Mitchell, Perth. 2, R. Stewart, Blairadam. 3, W. Stewart, Forfar.

DORRINGS.—1, Cup, and 2, Mrs. G. Armitstead, Inchmartine. 3, G. Cuthill, Meigle.

SPANISH.—1 and Cup, J. Mackie, Lorny. 2, R. Orr, Stirling. 3, R. Barr, Falkirk.

ABRAMA POUTERS.—1 and Cup, W. Weir, Larbert. 2, D. Gellatly, Meigle. 3, J. B. Cochran, Stenhousemuir.

CORINUS.—1 and Cup, J. Wyse, Falkirk. 2, J. Drinnan, Woodhall, by Airdrie. 3, W. Smith, Newpoult-Tay.

HAMBURGERS.—1, A. Pratt, Kirkcaldy. 2, J. Ireland, Tayport. 3, J. Borland, Foldil, Kilbarchan.

BANTAMS.—1 and 3, J. Seton. 2, J. Patterson, Monifieth.

ANY OTHER VARIETY.—1, J. Sandeman, Dundee (Creeve-Creurs). 2, J. Smart, Carnoustie (Creeve-Creurs). 3, W. Mitchell, Balgonie (Houdan).

SCOTCH-GHEYS.—1, J. Aitken, Bathgate. 2, J. Young, Slateford, Edinburgh. 3, J. Crawford, West Cambus.

DORRINGS.—1, J. Fowles, Tayport. 2 and 3, A. Mackie, Lochie.

GOSLINGS.—1, J. D. Fell, Blairgowrie. 2, Mrs. Anderson, St. Fink, Alyth. 3, J. Leslie, Winton, Blairgowrie.

TURKEYS.—1, Mrs. Stewart.

SELLING CLASS.—1, G. Cuthill. 2, J. Sandeman. 3, D. Gellatly.

LOCAL CLASSES.

GAME.—1, A. Robertson, Blairgowrie. 2, A. Stephen, Blairgowrie.

DORRINGS.—1, D. Smith, Alyth. 2, J. D. Fell.

SPANISH.—1, C. Robertson, Almonet. 2, J. Mackie.

BIRMA OR COCHIN.—1, W. B. Hill, Coral Bank. 2, W. Borrough, Blairgowrie.

HAMBURGERS.—1, F. Thomson, Kettie. 2, W. W. McIntosh, Blairgowrie.

BANTAMS.—1, C. Clark, Ferneth. 2, J. Grant, Blairgowrie.

PIGEONS.

POUTERS.—1, T. Mullions, Perth. 2, Miss C. McNeil, Coupar Angus.

FANTAILS.—1, A. Smith, Broughty Ferry. 2, Miss C. McNeil.

ANY OTHER VARIETY.—1, A. Smith (Carriers). 2, D. Kenoedy, Forfar (Almond Tumblers).

NORWICH AND EAST ANGLIAN BIRD SHOW.

The following are the awards made at the Norwich Show, held on the 6th, 7th, and 9th inst.:—

NORWICH.—*Clear Yellow.*—1 and 2, J. Adams, Coventry. 3, G. & J. Mackley, Norwich. 4, Provart & Willis, Norwich. *hc.* G. & J. Mackley; J. Adams, *hc.* G. & J. Mackley (2); A. Palmer, Norwich; A. Hersuch & Son, Coventry; G. & J. Mackley (2); J. Adams; J. Athersuch & Son; Provart & Willis. *hc.* G. & J. Mackley; Provart & Willis. *c.* G. Gilmore, Norwich; J. Athersuch and Son; W. Minns.

NORWICH.—*Evenly-marked Yellow.*—1, 2, and 3, G. & J. Mackley. 4, J. Adams. *hc.* G. & J. Mackley. *hc.* G. & J. Mackley; J. Athersuch & Son; Provart & Willis. *hc.* G. & J. Mackley; Athersuch & Son. 4, G. & J. Mackley (4). *Ticked and Unevenly-marked Buff.*—1, Hampton & Chamberlin, Leicester. 2, A. Athersuch & Son. 4, G. & J. Mackley. *hc.* G. & J. Mackley; J. Adams. *hc.* G. & J. Mackley.

NORWICH.—*Ticked and Unevenly-marked Yellow.*—1, 2, and 4, J. Adams. 3, Athersuch & Son. *hc.* G. & J. Mackley; Athersuch & Son; Provart & Willis. *hc.* G. & J. Mackley; Athersuch & Son. 4, G. & J. Mackley (4). *Ticked and Unevenly-marked Buff.*—1, 2, and 3, J. Adams. 4, G. & J. Mackley. *hc.* G. & J. Mackley; A. Palmer; J. Adams; Provart & Willis. *hc.* G. & J. Mackley. *c.* Hampton & Chamberlin; G. & J. Mackley.

NORWICH.—*Marked Crested Yellow.*—1, F. Alden, Norwich. 2, J. Selby, Nottingham. 3, S. Stratford, Northampton. 4, G. & J. Mackley. *hc.* W. B. Howell. *Marked Crested Buff.*—1, 2, and 4, G. & J. Mackley. 4, F. Alden. *hc.* F. Alden; R. Hawman, Middlesborough. *hc.* G. & J. Mackley (2); Athersuch & Son; J. Goode, Leicester. *c.* S. Stratford.

NORWICH.—*Yellow, with Dark Crest.*—1 and 2, G. & J. Mackley. 3, G. Cox, Norwich. 4, F. Alden. *Buff, with Dark Crest.*—1 and 2, G. & J. Mackley. 3, R. Brown, Norwich. 4, W. B. Howell. *hc.* G. & J. Mackley; W. B. Howell; G. Cox. *hc.* G. & J. Mackley. *c.* F. Alden; Provart & Willis.

NORWICH.—*Yellow, with Clear or Grey Crest.*—1, 2, and 4, G. & J. Mackley. 3, J. Goode. *hc.* F. Alden; Hampton & Chamberlin; G. Cox; J. Selby.

BELGIANS.—*Clear and Ticked Yellow.*—1, Fawcett & Anderson, Baildon. 2, and 3, G. E. Russell, Brierley Hill. 4, J. N. Harrison, Belper. *Clear and Ticked Buff.*—1, G. & J. Mackley. 2, R. Sargent. 3, J. N. Harrison. 4, G. E. Russell.

LIZARD.—*Golden-spangled.*—1 and 2, R. Ritchie, Darlington. 3, J. N. Harrison. 4, J. Mackley. *hc.* Rev. V. Ward, Hythe. *hc.* G. & J. Mackley; Athersuch & Son; W. Evans. *Silver-spangled.*—1 and 2, R. Ritchie. 3, J. Hickton, Sutton-in-Ashfield. 4, J. N. Harrison. *hc.* W. Evans; W. Richards, Bwlwell, Notts. *c.* Rev V Ward (3).

LIZARD.—*Gold or Silver-spangled, with Broken Cap.*—1 and 3, R. Ritchie. 2, J. N. Harrison. 4, J. Hickton. *hc.* E. Jarrett, Lynn. *c.* W. Evans, Lower Broughton; Rev V Ward (3).

YORKSHIRE.—*Clear Yellow.*—1, J. Wilkinson, Great Horton. 2 and 3, G. and J. Mackley. 4, Knight & Spencer, Arisey. *hc.* Fawcett & Anderson; L. Belk, Dewsbury; H. Waring, Bradford. *Clear Buff.*—1, 2, and 3, J. Mackley. 2, L. Belk. 3, Fawcett & Anderson. 4, Rev T. C. Hoss, Roydon Rectory. *hc.* W. Carnick, Middlesborough; H. Waring (2); Knight & Spencer. *c.* J. Thackrey, Bradford.

YORKSHIRE.—*Variegated Yellow.*—1, L. Belk. 2, W. & C. Barniston. 3 and *hc.* J. Thackrey. 4, W. Carnick. *hc.* J. Wilkinson. *Variegated Buff.*—1, J. Thackrey. 2, R. Hawman. 3, J. Wilkinson. 4, G. & J. Mackley. *hc.* G. & J. Mackley; J. Thackrey.

MANCHESTER CORP.—*Clear Yellow.*—1, Withheld. 2, J. Shackleton, Wellfield, Rochdale. 3, J. Meakin. 4, J. Wilkinson. *hc.* G. & J. Mackley. *Clear Buff.*—1, Fawcett & Anderson. 2, G. & J. Mackley. 3, J. Meakin, Manchester. 4, L. Belk. *hc.* J. Shackleton; J. Meakin.

MANCHESTER PLAIN HEADS.—*Clear Yellow.*—1, Withheld. 2, J. Meakin. 3, J.

Shackleton. 4, L. Belk. *vhc*, W. Evans. *Clear Buff*.—1, J. Shackleton. 2, J. Meakin. 3, L. Belk. 4, Fawcett & Anderton. *hc*, Fawcett & Anderton; J. Meakin.

CINNAMON.—*Yellow*.—1, 2, 3, and 4, J. Adams. *vhc*, J. Athersuch & Son; R. Poole, Maldon. *hc*, B. Broadwater, Norwich; R. Poole. *Buff*.—1, 2, 3, and 4, J. Adams. *vhc*, B. Broadwater; Miss A. Poole, Maldon; R. Poole.

CINNAMON.—*Variegated Yellow*.—1, T. Tenniswood, North Aclam. 2, L. Belk. 3, W. & C. Burniston. 4, G. & J. Mackley. *Variegated Buff*.—*vhc*, J. Athersuch & Son. *hc*, J. Wilkinson; W. & C. Burniston, Middlesbrough. C. G. and J. Mackley (3).

ANY OTHER VARIETY.—1 and *vhc*, G. & J. Mackley. 2, T. Mann (Jonque London Fancy). 3, W. Hutton, Baldon (Grey Crest Cops). 4, J. Meakin (Ticked Plain Head Manchester).

GOLDFINCH AND CANARY MOLE.—*Variegated Yellow*.—1, R. Hawman. 2, J. Goode. 3, W. & C. Burniston. *vhc*, G. & J. Mackley; W. Hutton; J. Stevens. *Variegated Buff*.—1, Hampton & Chamberlin. 2, R. Hawman. 3, J. Stevens. 4, T. Tenniswood; R. Poole. *Dark*.—1, J. Wilkinson. 2, J. Athersuch & Son. 3, G. & J. Mackley. *vhc*, R. Hawman. *hc*, W. Carrick; T. Tenniswood; W. & C. Burniston; Hampton & Chamberlin.

LINNET MOLE.—1 and 3, I. Spence. 2, J. Stevens. *vhc*, W. Hutton (2). MOLE.—*Any other variety*.—1, W. Hutton (Bullfinch and Goldfinch Mole). 2, R. Hawman (Greenfinch and Canary Mole). 3, T. Tenniswood (Greenfinch Mole).

SIX NORWICH CANARIES.—*Irrespective of colour*.—1, 2, and 3, G. & J. Mackley. *vhc*, G. Gilmore; Provart & Willis. *hc*, Hampton & Chamberlin; R. Poole; H. Wright.

SIX NORWICH CANARIES.—*To Members only of the Norwich Bird-breeding Association (except the Alliance)*.—1, W. Drake, Norwich. 2, W. B. Howell. 3, A. Frost, Norwich. *vhc*.—Andrews, Upper Heigham; G. Aldham, Norwich; H. Warren, Norwich. *hc*, W. Hutehin, Heigham; A. Frost. *c*, F. Rant; J. Wilsea, Norwich; H. Warren.

SIX NORWICH CANARIES.—*To Members only of the Norwich Bird-breeding Association*.—1, B. Broadwater, Trowse Newton. 2, W. Raby, Norwich. 3, R. Noller, Norwich. *vhc*, R. Bartram, Old Walsingham; R. Smith, Norwich; E. Howard, Norwich; G. Sayer, Norwich.

MISCELLANEOUS.—*vhc*, A. Boatwright, Bangay (six Mules).

BRITISH BIRDS.

BULLFINCH.—1, G. & J. Mackley. 2, Knight & Spencer.

GOLDFINCH.—1, A. Boatwright. 2, W. & C. Burniston. *hc*, Provart & Willis; Knight & Spencer (2). *c*, J. G. B. Baker, Fressingfield.

LINNET.—1, Mrs. S. Royall, Norwich. 2 and *hc*, W. Carrick. *vhc*, G. & J. Mackley. *c*, T. Tenniswood.

REDPOLE OR SISLIN.—1 and 2, G. & J. Mackley.

SKYLARK.—1, W. Walter, Winchester. 2, T. Knight. *hc*, G. & J. Mackley.

BLACKBIRD.—1, G. & J. Mackley. 2, J. Battershill, Well Street, London Docks.

SONG THRUSH.—1, Mrs. C. Watson, Norwich. 2, G. & J. Mackley.

STARLING.—1, G. & J. Mackley. 2, J. Drake.

MAGPIE.—Prize, G. & J. Mackley.

JACKDAW.—1 and 2, G. & J. Mackley.

ANY OTHER VARIETY.—1, G. & J. Mackley. 2, W. Carrick.

BIRDS OF PASSAGE AND MIGRATORY BIRDS.

BLACKCAP.—Prize, E. Martin, London.

WHITETHROAT, OR ANY SPECIES OF WARBLER.—Prize, O. A. Watts, Brixton.

FOREIGN BIRDS.

CARDINAL.—*Red-headed*.—Prize, Miss E. A. Eeles, Southwold.

WAXBILLS.—*Any variety*.—Prize, W. Walter.

SPARROWS.—*Java*.—Prize, G. & J. Mackley. *Coral-necked*.—Prize, W. Walter.

PARAKEETS.—*Australian Grass*.—Prize, A. Ward, Norwich.

LOVE BIRDS.—Prize, T. Hookins. *hc*, Miss E. A. Eeles.

COCKATEALS.—Prize, G. & J. Mackley. *hc*, W. Walter; Rev. T. C. Hose.

PARROTS AND PARAKEETS.—*Any other variety of small*.—Prize, G. & J. Mackley.

PARAKEETS.—*Australian or Brou-tailed*.—Prize, Miss E. A. Eeles. *vhc*, W. Walter; Miss E. A. Eeles.

PARAKEETS.—*Ring-necked or Indian*.—Prize, Miss H. Engall, Norwich. *vhc*, G. & J. Mackley; J. Finch, Norwich; S. Empson, Norwich; Mrs. S. Royall; C. Coleman, Heigham.

PARROTS.—*Kuy*.—Prize, Miss Bateman, Heigham Grove. *vhc*, E. Jarrett; J. Drake; Rev. T. C. Hose.

PARROTS.—*Green, or any other variety of large*.—1, W. Walter.

PARROTS.—*Grey*.—1, J. Yallop, Cossey. 2, G. & J. Mackley. 3, J. Wyer, Norwich. *c*, W. Fitch, Norwich; C. Watson, Norwich; T. Loombe, Norwich; G. Pyle.

COCKATOOS.—*Any variety*.—1, M. George, Cable Street, London Docks (Lemon-crested). 2, G. Evans (White). 3, W. Walter (Rose-breasted).

FOREIGN BIRDS.—*Any other variety*.—Prize, Rev. T. C. Hose (Paradise Parakeet). *vhc*, Rev. T. C. Hose (Blossom Head); Miss E. A. Eeles (Orange Bishop).

SOUTH DURHAM AND NORTH YORKSHIRE FAT STOCK AND POULTRY SHOW.—The schedule of prizes issued by this Society is a most attractive one. Altogether it contains 117 classes. For poultry the prizes are, first £2, second £1; and Pigeons and Rabbits have £1 first, and 10s. second. The Show is to be held at Darlington on December 16th and 17th, and the entries close on Monday, November 23rd.

BOYLE'S PATENT SELF-ACTING HEAT REGULATOR.

This machine (*fig. 119*) is so constructed that when once set to any degree of heat within the limits of 40° and 200° Fahrenheit, it will maintain the same for any length of time without variation. It is adapted to the control of hot-water pipes in hothouses, or any other place; to the opening and shutting of stove-dampers; and, in fact, to any use which requires a simple up-and-down motion in connection with heat. Among other special uses are those of incubators, plant cases, Mushroom-beds, &c. In these cases the use of the Self-acting Heat Regulator will be at once allowed by all who have had experience of the annoyance, anxiety, and failure of the attempt to regulate heat.

The prospectus says that the Regulator will be found to act perfectly untouched for an indefinite time, and there will be no perceptible variation in the heat. The heat for an incubator is 106°, and it is impossible, the inventor states, that this heat can ever be exceeded if his Regulator is used. The hen does not impart 106° to the egg. The egg will always be found, if broken under a thermometer, to be 104°, and the under side of the egg

will be considerably cooler than the upper; and experience shows that at 106° constant heat (the heat of the hen) the eggs will die either before or on chipping the shell, while at 108° constant heat they die at once. These data are given from many experiments with the patent regulator incubator. It has been observed that nests made under the hedges, or in any wild situation, produce more and stronger chickens than those cared for in baskets or boxes. Under the former circumstances the under side of the egg must be much colder than the upper side. And this agrees with the inventor's experience, who finds that in eggs kept in a steady temperature, equal on all sides, the chickens usually die on the nineteenth or twentieth day, and if any struggle out they are very feeble. In the incubator it will be seen that this natural irregularity of heat is carefully imitated. Heating the egg from beneath—a plan often tried because of its great facility—is directly subversive of the natural conditions. The receptacle for the eggs in this incubator (*fig. 120*) imitates all the conditions essential.

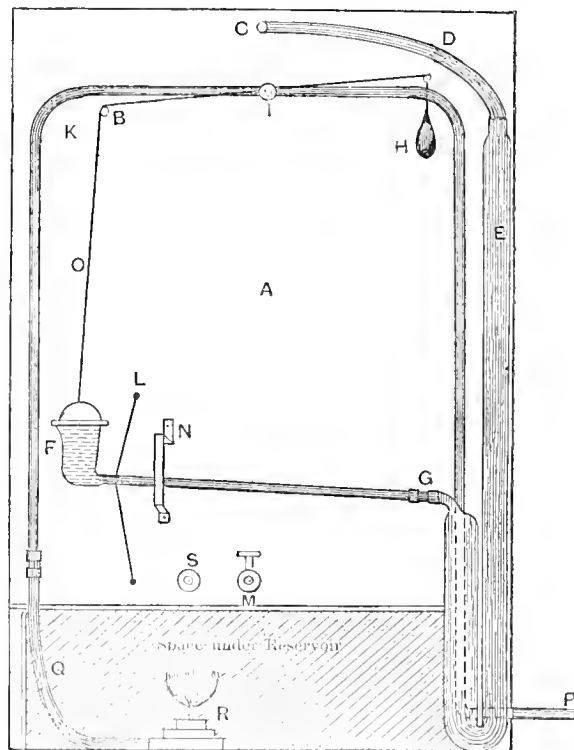


Fig. 119.—Boyle's Heat Regulator.

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|-----------------------|---|
| A, Front of box. | L, Compensating springs. |
| B, Steel lever. | M, Supply pipe. |
| C, Connecting pipe. | N, Guard. |
| D, India-rubber pipe. | O, Connecting thread. |
| E, Glass U-tube. | P, Connection with gas supply. |
| F, Bowl of mercury. | Q, India-rubber connection with flame. |
| G, Elastic joint. | R, Gas lamp. |
| H, Balance weight. | S, Tap for letting water out of the jacket. |
| I, Pivot gas-tap. | |
| J, Stop-tap (gas). | |

The next point for consideration in imitating Nature is the daily cooling of the eggs for about twenty minutes, rather more than less, when the hen leaves to feed. This must by no means be omitted, and we do not think that eggs suffer from a great deal of cooling (so that they get the full proper heat between times); but they soon die under half measures, such as many hours at 100° or 90°. If the eggs be never cooled most of them will die between the fifteenth and twentieth day, and all farmers' wives are aware that a "hard sitter" does not produce a certain brood.

The next thing to imitate is the natural damping of the eggs by the ground, the air, and slightly by the perspiration of the hen. This must be attended to, for if it be attempted to hatch the eggs without any moisture the chickens will in most cases be found to hatch without absorbing the yolk-bag, or, having partially absorbed it, will, on moving about, again extrude the bag and perish. On the other hand, with too much moisture, the eggs will addle. Daily sponging of the eggs is generally recommended, but the inventor prefers a gentle natural vapour.

Finally, as the hen kicks her eggs about regularly on return-

ing every day to the nest, it must be for the benefit of the chicken, and therefore it should be imitated. When the chickens chip the egg, the hen sits lightly, and lets the little prisoners extricate themselves, if they are, as they ought to be, strong enough. She never, as it has been asserted, attempts to help them. Moreover, her instincts no doubt tell her, that if a chicken cannot escape, it is not strong enough to live when assisted. In this incubator a chamber is provided in which the egg is placed when chipped, or immediately before chipping, and the chicken then comes out in freedom.

The hen covers the chickens for some weeks under her breast and wings. To imitate this most essential comfort two "mothers" are provided, heated by the cistern, and the chickens are placed under them as soon as dry. The mothers must be supplied with cotton wool or flannel for the chickens to nestle in, and with the warmth against their backs they are quite contented.

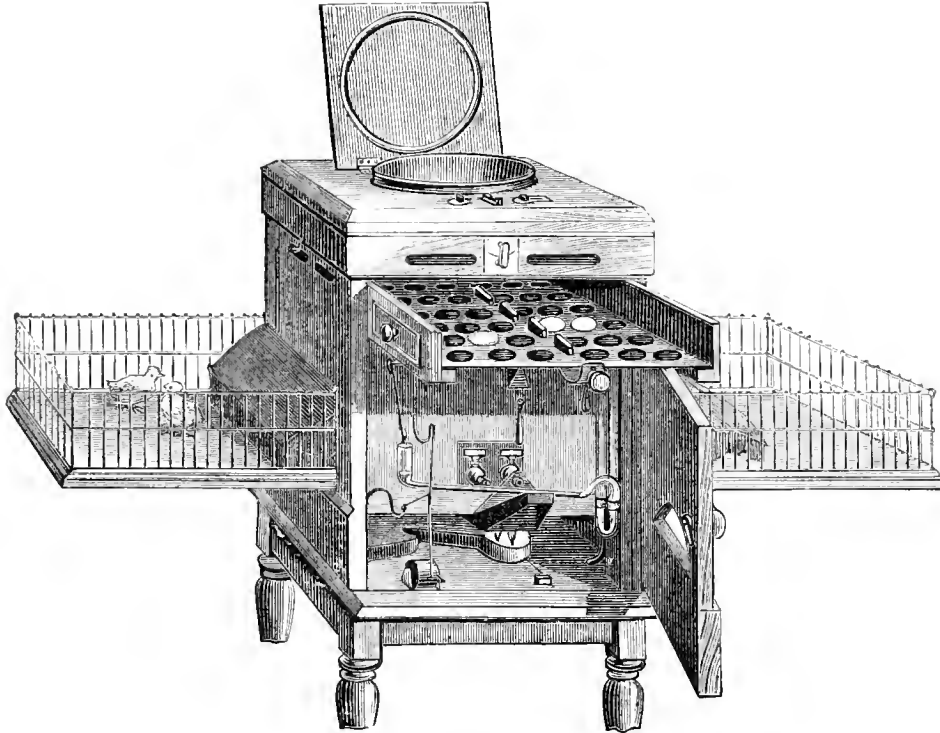


Fig. 120.—BOYLE'S INCUBATOR.

This incubator holds thirty eggs at a sitting, or three chickens every two days; but it can be made to hold double or treble if specially ordered.

DERBY ORNITHOLOGICAL SOCIETY'S SHOW.

The seventeenth annual Show of Cage Birds, and the second of poultry, Pigeons, and Rabbits, was held in the magnificent Rifle Drill Hall on the 7th and 9th inst. This is one of the best halls in the kingdom, and certainly is surpassed by none for such a purpose; as it is well lighted from the top the specimens were very easy of inspection. Through some mistake or other, most of the pens had to be taken down at a time when the birds should have been penned, and in consequence the arbitrations could not be commenced till it was nearly noon on the first day, and the visitors having been admitted the judging was carried out under the greatest difficulty; but in every other respect the management was exemplary, the birds being well attended to, fed, and watered.

The entries for poultry were very large considering the number of classes, and it was a matter of surprise to us to find so many good pens. *Cochins* came first, and these were a very good class, the medal for the heavy varieties being awarded to a very good pen of Buffs. The second were White, well-shaped, good, and clear, but not large. *Brahmas*, Dark, were fair; the first good all round, sound in colour, but the pullet not well pencilled. The second prize pullet was superior in that respect, but the pen losing in general quality. In *Light Brahmas* were some good birds, but some were a little overshadowed and yellow. The first were grand in shape, colour, and marking; the cock's comb

spring a little too much, and the hen rather scanty on feet-feather; the second a little better in feet-feather, and the cock's comb but somewhat yellow and cloudy. Many other pens came very close for the prizes.

Game were next, but in *Black-breasted Reds* we found many duck-footed birds, and some shamefully trimmed about the face. When will exhibitors learn that nothing spoils a hen like trimming? But the winners were fair birds. In *Brown Reds* chickens won the prizes, the first leaving little to be desired, and the medal for *Game* was awarded here. In Any other colour the first were *Duckwings* and second *Piles*, both being smart and good, but the first scarcely in full feather. One of the gems of the Show, however, was the *Brown Red cockerel* to which the medal for single cocks was awarded, this being perhaps in all points the best *Game* bird in the Show. The second was a good *Duckwing*.

Hamburgs were mixed classes. The first prize for *Pencilled*

and the medal for the best pen of *Hamburgs* went to an even pen of *Silver-pencilled*, the second being *Golden* also very good. In *Spangles* the *Golden*s stood quite clear of all danger, winning very easily, the first being an especially bright-coloured pen; but these lost the medal on account of the cock's comb being somewhat coarse.

The competition in *Game Bantams*, *Black* and other *Reds*, was very keen, many old and well-won pens putting in appearance, but these were beaten by younger birds; the first *Black* and second *Brown Reds*, a third also being awarded to *Black Reds*. Other colour of *Game* and all other varieties were shown together in the next class, and we would strongly recommend a revision of this section, for in this case many deserving pens had to be passed. The first were *Blacks*, second *Silver Sebrights*, and extra second *Duckwings*. *Cross-breeds* were a bad lot.

In the class for a single cock of any variety there was nothing striking if we except the first-prize *Dorking*. The *Variety* class was a very strong one, the first and medal going to a good pen of *Gold Polands*, second to grand *Spanish chickens*, and third to good *Red Malay chickens*; these, however, failed somewhat in that grand characteristic of the *Malays*—viz., an arched back. The *Selling* class was large, but, with the exception of a few pens, there was nothing good. *Ducks* had but one class, and here a most splendid pair of *Mandarins* won first, grand *Ronens* second, and *Aylesburys* third.

PIGEONS.—There were 190 entries in eight classes. *Carriers* were only moderate if we except the winners, which were *Blacks* first and second, and *Dun* third. In *Pouters* all the winners were *Whites*, the first a perfect bird in all respects, and a good show; the second, rather flat, was also good. *Dragons* had forty-seven entries of all the standard colours, and the contest

keen in all cases except for the first place, which was easily taken by Mr. Graham with a grand black-barred Silver, the second and third being Blues, twenty others coming in for mentions. *Fantails* were difficult to judge, so close was the run. The first was a perfect-tailed bird with good carriage; second came a large bird not so good in carriage, with a grand tail, both Whites, but the third was a capital Blue. In *Turbits* the first was Blue, and the second Yellow, spike-headed, and the third Silver with shell crown, the latter rather coarse. In *Tumblers* the first was an Almond cock, second a hen, and third a Kite. In the Variety class Mr. Yardley made a clear win with a good Black Barb, the second (a Yellow Jacobin) was most perfect, the third being a good Blue Foreign Owl. The Selling class contained some good birds, the first going to a White Pointer, second to a Blue Dragon, and third to a Black Carrier.

RABBITS.—There were two classes, and in these were forty-four entries, the Lops being a most extraordinary class, and such as it has never been our lot to see surpassed in measurement; out of eighteen Rabbits, one, a Black-and-white doe, being 22½ by 4½ inches in ear; one 22 by 5 inches, also a Black-and-white doe; one 22½ by 4½ inches, Tortoiseshell, a buck good in all points, but with a little cold in one eye; seven others coming up to 21 by 4½ and 4½ inches, the first three taking the prizes. In any other variety first was a good Silver-Grey buck, second a Himalayan doe, both grand Rabbits, while an Angora was third. The class was good.

THE All-England Show of Poultry, Pigeons, Rabbits, and Canaries, was held in the Drill Hall, Derby, on the 7th and 9th inst., at the same time as the annual Exhibition of Canaries by the members of the Derby Canary and Ornithological Society. At this twin Canary Exhibition there was a goodly number of first-class birds, but the Show taking place at the same time as the one at Norwich, the entries, as might have been expected, were but few compared to that. The fine Drill Hall is very well adapted for a bird show, but it is somewhat in the background and situated some distance from the railway station. On the whole the members' birds (164), and those shown in the All-England cage-bird division (146), added to the 544 entries of poultry, Pigeons, and Rabbits, made-up a very fine show indeed. I would recommend the Committee another year to have a day entirely set apart for judging, as it would do away with a great deal of confusion, which cannot possibly be avoided when a show is opened to the public almost at once as the Judges commenced their duties. The work of stage-erecting and the non-placing of the whole of the entered specimens in their respective positions in due time, are matters which very much retard the proper carrying-out of a show. The catalogue has assumed a more business-like shape than formerly, but the continuation of the All-England portion of the bird show immediately after the members' classes, without some note of explanation, is somewhat confusing. There is also room for improvement in the naming of the classes 36 to 39. As they appear, it is impossible that exhibitors can thoroughly understand how their birds should be entered. "Evenly-marked," and "Ticked or Unevenly-marked," can easily be understood by a novice in bird matters; but the very vague terms of "Marked" and "Variegated," is enough to puzzle the heads of the best of judges and the oldest of fanciers. Up to the very latest period on Saturday night I was unable to obtain a correct list of the prizes awarded; whether it was owing to the delay of forwarding them to the printers, or whether the distance between the show-room and the printers was too great, are also matters of consideration for the future. One thing is certain, exhibitors at a distance are ever anxious to know how their specimens "stand" as soon as possible. Perhaps the adoption of a system equal to that carried into effect at a cricket field would be better than nothing at all—the printing of a few of the returns as soon as given-in by the Judges. Where there is a detached prize list, a small printing press and a case of type would effect wonders in the way of expedition. And what a happy bit it would be if one of the Committee had a knowledge of the printing craft.—AN EYE WITNESS.

COCHINS—1 and Medal, W. White. 2, Mrs. E. Pryor, Welwyn. *vhc.* C. Judson, Peckham; Hon. and Rev. C. Vernon, Kettering. *hc.* W. Bentley, Teddington; Mrs. H. Strutt, Nourbridge; Mrs. E. Wilkinson, Manchester. *c.* Rev. K. Story, Derby; T. M. Derry, Gedney; J. W. Crosby, Bromwich. **BABIANA** *Portras*—*Dark*—1, C. Coppack, Chester. 2, R. P. Percival, Manchester. *vhc.* T. Webb, Sutton Coldfield. *hc.* H. Frost, Swansea; J. Robinson, Ulverston; J. Johnson, West Bromwich; H. Chawner, Uttoxeter; W. Branton, East Dereham. *c.* C. Coppack; — Holbrook, Derby. *Light*—1, J. T. Hinks, Lumberton. 2, W. T. Storer, Derby. *vhc.* T. Waterall, Lucas Grange. *hc.* J. C. Martin, Chesterfield; W. Thorn; R. P. Percival; Cronall and Sealey, J. Widdowson, Derby; R. E. Horsfall, Liverpool; H. Chawner. **GAME**—*Black Red*—1, C. Spencer, Thulstone. 2, F. S. Godsell, Stroud. *hc.* J. Lane, Burton-on-Trent; E. Clavey, Burton-on-Trent. 3, C. J. A. & H. H. Staley, Burfield; W. L. Blake, Llandaff. *Brown Red*—1 and Medal, H. E. Martin, Southport. 2, F. Sale, Derby. *vhc.* G. Bentley, Rickmansworth; C. W. Laxton, Market Rayson; J. Lane. *hc.* Miss Waters, Elsham; A. Peake, Somerby. *Any other variety*—1, Wingfield & Andrews, Sidbury. 2, F. Sale, *vhc.* E. Bell, Burton-on-Trent; Earl London, Derby; E. Winwood, Worcester. *hc.* J. H. Bradwell, Southwell. *c.* J. A. & H. H. Staley. *Cock*—1 and Medal, W. Ormerod, Todmorden. 2, E. Bell. *vhc.* J. E. Martin, *hc.* J. Calland, Heanor; F. Sale, Crowth; T. P. Lyon, Liverpool. *c.* C. W. Laxton; J. Cook, Worcester.

HAMBOURS—*Gold and Silver pencilled*—1 and Medal, J. Long, Bromley

Common. 2, H. Speakman, Nantwich. *vhc.* J. Smith, Lincoln. *hc.* H. C. White, Sutton Coldfield. *c.* J. Langley, Mickleover. *Gold and Silver-spangled*—1, T. E. Jones, Wolverhampton. 2, S. W. Hallam, Whitwick. *vhc.* J. Long. *hc.* Mrs. G. M. Rolls, Monmouth; M. M. Cashmore, Loughborough; H. C. White. *c.* Mrs. G. M. Rolls, Whitwick; J. Ward, Ashby-de-la-Zouch; C. Pickering, Kirk Langley.

HANTAMS—*Black and other Reds*—1 and Medal, A. Ashley, Worcester. 2, F. Shumach, Southwell. 3, S. Beighton. *vhc.* J. Oseroff; W. Barkerville, Manchester. *F. Sale*, H. V. Smith, *hc.* W. Tomkinson, Smallthorne; W. Griffin; D. Warren, Synton; Wingfield & Andrews; J. Richardson, Loughborough; A. Canty, Barton-on-Umber. *c.* Hockaday & Hearn, St. Austell; W. Branton. *Any other variety*—1, R. H. Ashton, Manchester. 2, Mrs. Wootton, Mapperley. Extra 2, R. Smith, Southwell. *vhc.* J. W. Lloyd, Kingston (2); J. Earnshaw, Rotherham. *hc.* G. Evans, Worcester; F. Shumach; J. Oseroff; S. Beighton; H. C. Holloway, Stroud; M. Leno.

CROSS BREEDS—1, J. Widdowson. 2, W. Kirby, Ashby-de-la-Zouch. **ANY VARIETY**—1 and Medal, Hon. and Rev. C. J. Vernon. 2, H. Yardley, Birmingham. 3, J. Richardson (Malays). *vhc.* Stott & Booth, Bury (Black Hamburgs); W. Cutlack, jun., Ely (Creve-Cœur); H. Chawner, jun. (Hoodan). *hc.* W. Dings, Faversham (Houdans); J. S. Rooth, Chesterfield (Malay); R. A. Boissier (Creve-Cœur); E. Brown, Sheffield (Spanish); W. L. Blake. *c.* Lient-Col. Conolly, Mickleover (Houdan). *Cock*—1, Miss Murray, Thulstone (Dorking). 2, W. Birch, Coventry. *hc.* R. A. Boissier, Penhurst (Houdan); A. and W. H. Silvester, Sheffield (Silver Scherger); C. Graves, Chesterfield (Brahma); R. Barrett, Stroud; H. C. Holloway (Cochin). *c.* W. Morris, Rose.

SELLING CLASS—1, J. Richardson (Brown Red Game). 2, J. Payne, Newark. 3, J. Smith. *hc.* C. Spencer; P. Hanson, Stouchouse; J. Staley, North Collingham (Buff Cochins); M. M. Cashmore (Dorkings). *c.* P. Hanson; J. Atkinson, Newark (Brahma).

DUCES—1, A. & W. H. Silvester. 2, J. White, Whitley, Netherton. 3, Mrs. Wootton. *hc.* S. L. Edwards, Tarporley. *c.* J. Brown, jun., Markfield; J. H. Bradwell.

PIGEONS.

CARRIERS—1, W. H. A. Muller. 2 and 3, S. D. Baddeley, Hereford. *hc.* C. T. Heric, Bandy. *hc.* H. Yardley. *c.* H. Yardley. **POUTERS**—1, W. Nottage, Northampton. 2, — Holbrook. 3, G. Foster, Northampton. *hc.* W. W. Watkin, Northampton; H. Yardley. *c.* D. M. Garalde, Manchester; R. Barrett.

DRAGONS—1, F. Graham, South Birkenhead. 2, A. Boote, Crewe. 3, R. Woods. *hc.* W. W. Watkin, Northampton; C. F. Heriiff, F. Graham (2); A. McKenzie; C. E. Chavasse, Sutton Coldfield (2); R. Woods, Mansfield; A. W. Wren, Lowestoft; C. F. Staunton, Sandy Mount; A. Boote (2). *c.* G. Bentley; A. and W. H. Silvester, *hc.* G. W. Burton, Chester; A. McKenzie.

FANTAILS—1, W. Walker, Burfield. 2, J. F. Loveridge, Newark. 3, H. Yardley. *vhc.* S. Swift; J. Walker. *hc.* W. Morris; J. F. Loveridge; J. Walker (2).

TURBITS—1, R. Woods. 2, A. Riddell, Lichfield. 3, L. Lawson, Preston. *hc.* Hockaday & Hearn; A. Riddell; H. Yardley; H. G. Poole, Bradford; A. & W. H. Silvester. *c.* H. G. Poole; R. Woods.

TUMBLERS—1, J. Peace. 2, H. Yardley. 3, R. Barrett. *vhc.* A. & W. H. Silvester. *hc.* C. E. Chavasse; G. Holloway, jun., Stroud; S. Curzon, Derby; L. Lawson.

ANY OTHER VARIETY—1, H. Yardley. 2, A. Manders, Norfolk (Yellow Jacobin). 3, T. Chambers, Northampton (Foreign Owl). *vhc.* J. Peace; R. Woods (Archangel); A. Manders (Red Jacobin). *hc.* C. F. Heriiff (Black Swallow); Mrs. R. B. Wood, Uttoxeter (Red Swallow); T. Chambers (Foreign Owl); W. Patrick, Kettering; R. Woods (Jacobin); — Thresh, Bradford (Barb). *c.* W. Nottage.

ANY VARIETY—1, L. Watkin. 2, A. Boote (Dragon). 3, J. Currie, Worcester (Black Carrier). *hc.* J. C. Adams, Rochdale; W. Brown, Northampton; J. Karsenaw; R. H. Ashton (2); J. Harrison (Barb). *c.* D. M. Garalde (Carrier) (2); L. Lawson (Trumpeter); R. Barrett; M. M. Cashmore (Carrier).

CAGE BIRDS.

BELGIAN—*Clear Yellow*—1, R. Whitaker, Darley Abbey. *Marked Yellow*—1, W. Woodward, sen., Derby. *Marked Buff*—1, R. Whitaker. *Variegated Buff*—1, W. Woodward, sen.

NORWICH—*Clear Yellow*—1, J. Clarke, Derby. 2, W. Woodward, jun. 3, A. Utton, Derby. *vhc.* H. Watson, Derby; J. Torr, Derby; Johnson & Hinds; J. Evans, Derby. *hc.* J. Bexson, Derby; H. Ball, Castle Donington. *Clear Buff*—1, J. Clarke. 2, Johnson & Hinds. 3, J. Torr. *vhc.* A. Utton; J. Evans; W. Woodward, jun. *hc.* H. Ball.

NORWICH—*Marked Yellow*—1, Johnson & Hinds. 2, J. Clarke. 3, J. Torr. *vhc.* J. Bexson; R. Whitaker. *hc.* C. Bishendon; W. Woodward, jun. *Marked Buff*—1, Johnson & Hinds. 2, J. Bexson. 3, H. Watson. *vhc.* W. Woodward, jun.; J. Torr. *hc.* R. Whitaker; J. Evans.

NORWICH—*Evenly-variegated Yellow*—1, H. Watson. 2, T. Newbold, Burton-on-Trent. 3, W. Woodward, sen. *vhc.* J. Lowe, Long Eaton. *Evenly-variegated Buff*—1, C. Bishendon. 2, A. Utton. 3, T. Newbold.

NORWICH—*Heavily-variegated Yellow*—1, Johnson & Hinds. 2, J. Torr. 3, H. Ball. *vhc.* A. Utton. *hc.* T. Newbold. *c.* C. Legg. *Heavily-variegated Buff*—1, Johnson & Hinds. 2, K. Whitaker. 3, J. Clarke.

NORWICH—*Green Jonque*—1, J. Torr. 2, C. Bishendon. 3, W. Jackson Burton-on-Trent. *Mealy Green*—1, H. Ingman, Preston. 2, F. Edwards.

NORWICH—*Variegated Crested Yellow*—1, F. Woodward. 2, J. Bexson. *vhc.* Johnson & Hinds. 3, J. Clarke. *Variegated Buff*—1, J. Torr. 2, J. Clarke. 3, A. Batelle, Ockbrook. *vhc.* J. Lowe.

NORWICH—*Any variety Crested Yellow*—1, R. Hodgkinson. 2, J. Bexson. 3, J. Torr. *hc.* J. Clarke. *Any variety Crested Buff*—1, F. Woodward. 2, J. Torr. 3, Johnson & Hinds. *vhc.* J. Clarke. *hc.* J. Bexson.

LIZARDS—*Golden-spangled Clear Caps*—1, R. Hodgkinson, Derby. *Silver-spangled Clear Caps*—1, — Legg. 2, — Hyde.

LIZARDS—*Golden-spangled Broken Caps*—1, W. Jackson. *Silver-spangled Broken Caps*—1, R. Hodgkinson. 2, W. Jackson. 3, J. Legg.

CINNAMONS—*Self Jonque*—1, A. Utton. 2, J. Bexson. 3, C. Dakin, Derby. *Self Mealy*—1, J. Bexson. 2, T. Newbold. 3, C. Legg. *vhc.* A. Utton. *hc.* J. Torr.

CINNAMONS—*Marked or Variegated Jonque*—1, N. Banks. 2, J. Torr. **GULDFINCH MULES**—*Marked or Variegated Jonque*—1, J. Bexson. 2, W. Ashworth, Derby. 3, A. Curtis, Burton-on-Trent. *Marked or Variegated Mealy*—1, R. Hodgkinson. 2, W. Ashworth. 3, A. Curtis.

GULDFINCH MULES—*Dark Jonque*—1, J. Bexson. 2, A. Curtis. *Dark Mealy*—1, Rogers & Kerry, Ripley. 2, W. Ashworth. 3, A. Curtis. *vhc.* W. Woodward, jun.; W. Jackson.

ANY VARIETY OF MULE—1, W. Ashworth. 2, A. Curtis. **NORWICH**—*Clear Yellow*—1, Orme & Ashley, Derby. 2, J. C. Salt, Burton-on-Trent. 3, J. Adams, Coventry. *vhc.* J. C. Salt; J. Adams; R. Whitaker. *hc.* J. Winfield, Burton Joyce. *c.* C. K. Cowley, Burton-on-Trent. *Clear Buff*—1 and 2, J. Adams. 3, J. Clarke. *vhc.* J. C. Salt. *hc.* T. Smith, Coventry.

NORWICH—*Marked Yellow*—1, J. C. Salt. *Marked Buff*—1, J. Adams. 2, J. C. Salt.

NORWICH—*Variegated Yellow*—1 and 2, J. Adams. *vhc.* J. C. Salt. *c.* W. Sherwin. *Variegated Buff*—1 and 3, J. Adams. 2, Clark & Newton, Nottingham. *hc.* J. C. Salt.

NORWICH—*Crested Yellow*—1, F. Woodward. 2, C. Hillier, Northampton. 3, Clark & Newton. *vhc.* Doman & Allen, Nottingham; Clark & Newton; Brown & Gayton, Northampton. *hc.* H. Watson. *Any variety Crested Buff*—1, F. Woodward. 2, G. Dutton, Burton-on-Trent. 3, Martin & Griffin, Northampton. *vhc.* Doman & Allen; Martin & Griffin. *hc.* Doman & Allen; W. Sh-rwaa; G. Cox, Northampton.

BELGIAN—*Clear, Ticked, or Variegated Buff*—2, G. E. Russell, Brierley Hill. 3 and *hc.* M. Leno, Markyate Street. *vhc.* R. Hawman.

LIZARDS.—*Golden spangled*.—1, Withheld. 2 and 3, R. Ritchie. *Silver-spangled*.—2, R. Ritchie.
CINNAMON.—*Jouques*.—2 and *hc*, J. Adams. 3, J. C. Salt. *c*, J. G. Edge. (*Mealy*.—1, G. Cox. *vhc*, J. Adams. *c*, J. G. Edge.)
GOLDFINCH MULE.—*Dark*.—1, G. Cox. 2, Miss B. Remrose. *vhc*, R. Hawman.
GOLDFINCH.—1, S. Roberts, Derby. 2, R. Hawman.
LINNET.—*Brown*.—1, R. Ward, Derby. 2, W. Carrick, Middlesbrough. *vhc*, J. Simmet, Derby.
BRITISH BIRDS.—*Any other variety*.—1, T. Newbold (Thrush). 2, H. Nicklison, Derby. *vhc*, E. Sandell, jun., London (Bullfinch). *hc*, J. Harrison, Derby (Robin).
PARROTS.—*Any variety*.—1, T. Gollibutt, Derby. *vhc*, J. F. Barrs.

RABBITS.

LOP-EARED.—1, T. Boyle, Blackburn. 2, T. Green, Moxley. 3, T. Davis, Southwell. *hc*, T. Schofield, jun., Manchester (2). *hc*, W. Canner, Leicester; A. Jones West Bromwich; T. Schofield, jun.; J. Wood, jun., Derby.
ANY OTHER VARIETY.—1 and Extra 3, T. Schofield, jun. (*Silver-Grey* and *Dutch*). 2 and *vhc*, J. Boyle (Himalayan and *Silver-Grey*). 3, W. Brunton (Angora). *hc* and J. Tebbutt (Himalayan); W. Patrick (Angora); J. Owen, Kettering (*Dutch*); A. Cauty (*Silver-Grey*).

GUISBOROUGH BIRD SHOW.

IN cage-bird circles Guisborough has spoken for the fourth time, and the Show of 1874, held on the 30th and 31st ult., has become an event of the past, except the chrouching of the doings at the annual Bird Show held at the Temperance Hall. Guisborough certainly has added to its hitherto-gained reputation during the past four years, even though it be simply no more than the holding of its annual Show. History speaks of Guisborough (in the North Riding of Yorkshire) in another way than with respect to birds. It is stated that the town is celebrated for being the first place where alum was made, but what part of the globe is credited with the discovery of the aforesaid useful article is not just now within my head to decide. Perhaps the Romans knew more about that matter than I do. I think I have seen it stated that it was first obtained from the East, and introduced into England in the year 1595 by Sir Thomas Chaloner. Now this may be all very well in its way, but as I feel somewhat more illumined than aluminous, I will adhere to the question of birds, and give below the details of such who were the fortunate winners with their little fiery-looking wondrous. Canaries now-a-days are wonders in reality—I do not mean all of them; only those which have undergone a certain course of treatment. Fanciers, mark the word "certain." Some undergo an uncertain course of treatment. Such can never be expected to become "little blazing gems of dazzling brightness." I might here ask the question of any breeder of Lizard birds, What success, pray, have you (anyone) had with putting your birds under the cayenne treatment? The answer perchance will amount to this: "It's a mistake, I've put my foot in it; no more pepper for me." Now hear with me with becoming patience, ye impatient fanciers; I'm driving towards Guisborough as fast as I can. One point is beyond all doubt: Sir Thomas Chaloner had nothing to do with the introduction of the Canaries and the numerous other feathered beauties which graced the stages in the Temperance Hall, Guisborough, during the two-days Bird Show. The supplies were furnished by exhibitors from various parts of England. One fancier, so the prize list announced, forwarded fourteen of his Canaries, and gained with them the equal number of fourteen first and second prizes, a feat I never remember being performed before. Lucky "John Adams, of Coventry!" Talk of being "sent to Coventry," I really believe many would like to go there; and if all is true that's whispered, a journey has recently been made with the object of becoming "fly" to the "ins and outs" of the pepper "dodge." It appears there is yet some "secrecy" existing. Respecting the above-mentioned fourteen first and second prizes, the same lucky fancier is not bound to repeat the like performance at every other show betwixt now and the holding of the great Crystal Palace Exhibition. I recollect it being once asserted in print that because one Mr. So and so had "swept the deck" at an exhibition held early in the season, he was "bound to win" at every other show following up to a certain period during that same exhibiting season. Now I consider that a very ridiculous and ill-timed assertion to make. Vain, excessively vain, as far as the writer's opinion of himself was concerned, because judges are not and will not be "bound" to one individual's way of thinking; besides, it exhibited a want of discretion on the on the writer's part.

Norwich.—Clear Yellows counted nine entries, and Clear Buffs thirteen. Mr. Adams took first and second in each class—an easy win. Mr. Stevens's Yellow, a "good 'un," was third, Mr. Winter's Buff occupying the like position, but rather small. Five Evenly-marked Yellow or Buff made up Class 3, the two highest prizes falling to Mr. Adams, and the third to Mr. Cox. Two classes were devoted to the Ticked or Unevenly-marked birds. There were six in each class, Mr. Adams being again to the front for two firsts and two seconds. Mr. Bexson won a third place in the Yellows, and Mr. Tenniswood a third in Buffs. The winning birds were full of fire, and in splendid trim. The Crested birds stood thus—Mr. Hawman's first, Mr. Hampton's second, and Mr. Cox's third.

Lizards.—Both classes mixed, which I entirely disapprove of. Entries scarce, but quality "up to the knocker." The first

prize, a Silver bird, won with the greatest ease, Messrs. Cleminson & Ellerton being the exhibitors of that and the third bird, a Golden-spangled. Messrs. Holdsworth & Oliver's second prize Golden-spangled bird was a fair specimen, barring cap and spangle.

Cinnamons, Jouques, first and second to Mr. Adams—an easy win. Third prize Mr. Burton, but much behind the two others in colour. Buff—Mr. Adams again to the front with two splendid birds, Mr. Cox claiming third place with a very good bird.

Yorkshire.—Two classes for Clear, and one for Ticked or Unevenly-marked. The chief winners were Messrs. Williams, Belk, Stevens, Winter, Rowland, and Garbutt. There were many smart-made, close-feathered birds, and the three classes were well judged.

Clear Green numbered six, Mr. Rowland claiming first honours, Mr. Stevens second, and Mr. Tenniswood third. All in good feather and condition.

Crested Copsy.—Mr. Garbutt's first-prize was well in for the position it justly occupied, and was much admired for its splendid crest. Mr. Belk, who exhibited a tolerably good bird, was likewise a winner in the next class, "Plain-headed." He exhibited a fine-shaped Yellow, and Mr. Thackrey followed up close with a Buff for second place.

Any other Variety.—Mr. Hawman was well in for a first with his Yellow Belgian, Mr. Belk ranking second with a fine yellow-marked York-hire. There were several birds of note in this class besides Messrs. Fryer & Holt's third-prize, some of which, no doubt, will be heard of at future shows.

Mules.—Mr. Bunting was first with a dark Goldfinch specimen, which met with a purchaser, Mr. Cox being second and Mr. Hawman third in the same class. In the Any other variety of Goldfinch Mules Mr. Bunting was again to the fore with a real beauty, full of size, bloom, and condition. Mr. Tenniswood stood next with a clean specimen, and Messrs. Moore and Wynn's Marked Yellow was third.

British Birds.—Here again Mr. Bunting was victorious with a somewhat showy-moulted Goldfinch, a likely-looking breeding bird, cheap too at the catalogue price of 25s. Mr. West was second, and Mr. Bishop third. There were eleven Goldfinches exhibited, but some were backward in the moult. The Linnet class contained twelve good birds, Mr. Burton's bird having the choice of places. Mr. Bunting was second, and Mr. Carrick third. The second and third-prize birds were much in favour. In the Any other variety of British birds there were several capital specimens. A Starling, exhibited by Messrs. Fryer and Holt, was richly deserving of the first place. This identical bird, it appears, had the misfortune of descending the chimney of a farmhouse. The bird was afterwards disposed of for an "old song," and was again re-sold at Stockton Show, where it took a prize. It was again successful as a prizewinner at Middlesbrough. These are the birds to sweep the deck.

There was a Selling class, in which twenty-four specimens were shown. The first prize was awarded to Mr. Thackrey's bird, although a coarse-looking one. Mr. Thomas Cleminson was awarded second honours, and Messrs. W. & C. Burniston third. There five entries in the class for "Cage of six varieties," Messrs. Cleminson & Ellerton being the winners of the first, Mr. T. Cleminson that of second, and Mr. Hampton third. The sixes throughout were very showy, especially the first and second-prize cages.

NATIONAL PERISTERONIC SOCIETY.—The members of this Pigeon Club will hold, between the hours of 7 P.M. and 11 P.M., on Tuesday, the 17th inst., at the Freemasons' Tavern, Great Queen Street, London, a show of Pigeons, including all the high-class varieties and Toys. Admission on presentation of address card.

HIVES: WOOD v. STRAW.

At page 415 Mr. Pettigrew says, "I think it has never been proven that hives with moveable combs are the most profitable." Perhaps not. No doubt as much honey can be got out of straw hives without bars as with them. The same may be said of wooden hives; but on the other hand it may be asserted without fear of reasonable contradiction that wooden hives with or without bars under similar external circumstances are equally profitable with those made of straw. Putting aside the question of mere profit, as to which there is not a pin to choose between the one system or the other, when we come to balance their *pros* and *cons* in other respects, who can doubt that in point of interest and perfect mastery of the science of bee management the wooden and the bar hives carry the day?

As a practical bee-master of the old school Mr. Pettigrew has no equal, but we of a later generation cannot allow the splendid achievements of our more scientific apiarists to be systematically snubbed, in *THE JOURNAL OF HORTICULTURE* too, which has for the last thirty years been the pioneer of all apian progress in England and America. Certainly the results of the recent Crystal Palace Show did not evidence any such practical superiority of the straw and stick hive management as Mr. Pettigrew persists in claiming; indeed it was quite the reverse. Nor

does his question put to "the principal bar-frame dealer" in his neighbourhood, and the answer thereto, settle the matter quite so triumphantly. Curiously enough that veteran bee-master, Mr. George Fox, of Kingsbridge, comes to the rescue, and gives the proof as to the at least equal excellence of the wooden bar-framed hives. His "adjusting" hive, "in which the arrangement of frames in the stock-box and bars in the adjuster have been carefully carried out," is fully the match of any straw hives I ever heard of; 93 lbs. of honeycomb in one year in one such adjusting super, and 112 and 109½ lbs. in two other supers are quite a match for the straw hive weighing "164 lbs. gross," the largest ever heard of by Mr. Pettigrew.

Pray let this controversy cease, and let it be allowed, both to Mr. Pettigrew to prefer his sticks and straw, all very good in their way, and to "B. & W." and others to believe that there is at least equal merit in the results of modern science. I express only the general sense of annoyance which exists at this constant nibbling by Mr. Pettigrew at those who differ from him.—B. & W.

HONEY HARVEST IN NORTH STAFFORDSHIRE.

THE honey harvest in this part of the country has not on the whole been very good; most of the bees being kept in very small straw skeps, and being very weak in the spring, have not done much service; but the few bee-keepers who have commenced using the 16 and 18-inch Pettigrew hives have done pretty well. I had nine such hives, seven of which I artificially swarmed, the other two not being fit at the proper time. One of these became very strong in bees, and filled me an 8 lb. glass super, and has since yielded honey very well; the other still continues weak. The outcome of the whole is three glass supers—8 lbs., 15 lbs., and 16 lbs. respectively; two straw supers, 5 lbs. and 12 lbs. respectively; 83 lbs. of honeycomb, being a 63-lb. hive sold to be run for honey, and 20 lbs. of white comb cut from the outside combs, and I could easily have cut 100 lbs. if there had been a demand for it, and 305 lbs. of beautiful run honey "fit to eat," giving a total of 441 lbs. of honey and 17½ lbs. of wax, besides a great amount of waste, which has been made into about eleven gallons of mead. This I think a very fair harvest from nine stocks in the straw hives so much despised by some apiarists, but which I venture to think the very best hive that is made where the greatest results are required from the least possible trouble and expense.

My present stock consists of five old stocks, one swarm, one turnout, and six autumn sugar-fed stocks—in all thirteen hives, three of the sugar-fed ones being in the so-much-vaunted bar-frame hives, which have been filled with sweet old combs, and I intend to test their merits fairly alongside the Pettigrew straw hive.

Three of my neighbours who have adopted the large straw hives in preference to the small ones have severally:—No. 1, from two spring stocks 65 lbs. of honey; No. 2, from three stocks 120 lbs., and a glass super about 16 lbs.; No. 3, from four stocks 150 lbs., besides a large quantity of refuse honey given to the driven and united bees in each case.—THOS. BAGSHAW, *Longnor, near Buxton.*

CRUDE IVY HONEY.

UNDER this head "B. & W." informs the readers of the Journal that honey gathered from ivy blossoms "tastes exactly like the leaves of the plant when chewed in the mouth, and is equally acrid, only, of course, much sweeter." Then he puts this extraordinary question, "Will Mr. Pettigrew say that this acrid taste is not existing in the crude syrup gathered in the flower, but is developed in the stomach of the bee when the honey has been reswallowed?" I have to say in answer that no intelligent person entertains such a thought. "B. & W." should know that bees have not the power to give the peculiar flavour to any kind of honey. No two different plants yield honey tasting alike; the peculiarity comes from the plant, and exists in the syrup found in its flowers. The bees, however, remove the crudeness, and sweeten as well as thicken the syrup or nectar. After honey has been twice swallowed and disgorged it is perfect, whether found in the combs sealed or unsealed.—A. PETTIGREW.

OUR LETTER BOX.

DORKINGS AT OXFORD SHOW.—Mr. Lingwood informs us that the cockerel in his pen, No. 11, was hatched on the 23rd of February.

HOUDANS (*H. B. P.*).—Your fancier either makes a mistake or does not know the fowls. Houdans are very hardy. It is the La Fleche that die suddenly. You may have twenty to all appearance in perfect health in the morning, and every fowl down before the evening. We consider the Houdans the hardiest of the French breeds. A pair of true birds will cost you from 40s. to 50s.

YELLOW FEATHERS IN BLACK HAMBOURNS (*P. S.*).—In nearly all black-plumaged cocks breeders are exposed to disappointment by finding red and yellow feathers in the backles and saddles, but this is confined to the cocks—Spanish, Cochins, and Polands. Although they are not considered disqualifications in Crève-Cœurs as long as they confine themselves to yellow, yet red feathers disqualify even in that breed, and it is desirable a cock should have

no colour. Nothing of the sort is, however, looked for in hens and pullets. At times a Spanish hen will become first patchy, then white, and we have known one moult black again, but this is a very rare exception. When we are told we are buying prize birds, and when we give a large price for them, we expect purity of breed, and we believe that such will throw pure chickens. If one or two pullets had shown white tips or white feathers we should be disposed to overlook them if the others were perfect; but when it is the rule of the produce we should feel aggrieved, and should complain. If we could not get an answer we should, after due notice given, complain publicly. Even if the seller was not aware they had any bad blood in them, he should offer you some redress. If you bought the pen that took first prize at a certain show, and you had them, you have no ground for complaint. You acted on the decision of the Judge, and bought certain fowls as they appeared in the pen.

RABBIT FOR EXHIBITION (*P. J.*).—Give only dry food—oats, peas soaked and well drained, and slices of carrot. No green food.

FOOD FOR BEES (*T. J. L.*).—Next to honey we prefer a mixture—1 lb. of loaf sugar dissolved in half a pint of water, and boiled for two or three minutes.

TERRIER (*J. W. L.*).—Put a piece of india-rubber court plaster on the wound where the wart was. When healed touch the wart with aquafortis, and repeat until removed. To destroy the vermin in the dog's coat, take enough soft soap to rub into the whole coat of the dog; add to this a teaspoonful, more or less according to the size of the dog, of spirits of turpentine; rub this mixture well into the roots of the hair, adding a little warm water to make it reach the skin. Let this remain on for a quarter of an hour, then plunge the dog into a warm bath, and rub off the mixture with the hand. Care should be taken not to let it get into the eyes, and to wash it completely out of the skin.

METEOROLOGICAL OBSERVATIONS,

CAMDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W.; Altitude 111 feet.

DATE.	9 A.M.					IN THE DAY.					Rain.
1874.	Barom- eter at 32° and Sea Level.	Hygrome- ter.		Direction of Wind.	Temp. of Soil at 1 foot.	Shade Tem- perature.		Radiation Temperature			
Nov.		Dry.	Wet.			Max.	Min.	In sun.	On grass		
We. 4										Inches.	
Tb. 5	30.195	45.2	45.3	W.	49.8	57.9	38.5	77.1	36.4	0.010	
Fr. 6	30.226	54.8	54.2	S.E.	50.0	51.1	41.3	68.8	41.4	—	
Sat. 7	30.226	54.8	54.2	W.	50.5	59.1	45.0	78.9	42.3	—	
Sun. 8	30.245	47.9	44.7	S.	51.2	54.7	42.1	82.2	39.6	—	
Mon. 9	30.523	38.3	38.0	N.	47.8	50.6	31.4	68.8	30.5	—	
Tu. 10	30.402	51.8	49.8	S.W.	47.9	58.2	38.7	82.1	37.1	—	
Tu. 10	30.116	51.0	49.3	W.	49.1	52.7	45.0	69.3	45.2	—	
Means	30.287	48.4	47.3		49.5	55.5	41.4	72.8	39.0	0.010	

REMARKS.

4th.—Fine morning, and till the after part of the day, then not quite so bright, but warm.

5th.—Foggy till noon; then very bright for three or four hours; fog in the evening, but clear after 9 p.m.

6th.—Fine early, hazy at 8.30 a.m.; fine for a short time in the middle of the day, but dark very early.

7th.—Beautifully fine during the whole of the day.

8th.—Foggy at 9 a.m., and very much more so in the middle of the day; but clear at night.

9th.—Rather hazy early, but a very fine day.

10th.—Rather foggy, but bright at times.

A fine autumnal week, barometer higher, and temperature rather lower. Scarcely any rain.—G. J. SYMONS.

COVENT GARDEN MARKET.—NOVEMBER 11.

A CONTINUANCE of fine weather enables the growers of outdoor produce to keep us well supplied, so that very little variation in prices occur during the week. Dutch Hamburgh Grapes are nearly over, and good hothouse in rather better request; but a large quantity of inferior ones are on the market. The first cargo of St. Michael Oranges direct from the islands arrived to-day. The Potato trade is heavy; but samples of blighted ones not so prevalent as they were a week ago.

FRUIT.

	s.	d.	s. d.		s.	d.	s. d.
Apples.....	1	0	10	Oranges.....	100	12	0
Chestnuts.....	10	0	20	Pears, kitchen.....	doz.	2	0
Filberts.....	lb.	1	0	Pears, dessert.....	doz.	1	0
Cobs.....	lb.	1	0	Pine Apples.....	lb.	2	0
Grapes, hothouse.....	lb.	1	6	Plums.....	1	sieve	0
Lemons.....	100	8	16	Walnuts.....	bushel	10	16
Melons.....	each	1	0	ditto.....	100	1	0

VEGETABLES.

	s.	d.	s. d.		s.	d.	s. d.
Artichokes.....	doz.	8	0	Leeks.....	0	8	0
Asparagus.....	100	0	0	Lettuce.....	doz.	1	0
French.....	0	0	0	Mushrooms.....	pottle	0	9
Beans, Kidney.....	1	0	6	Mustard & Cress.....	punnet	0	2
Broad.....	bushel	0	0	Onions.....	bushel	3	0
Beet, Red.....	doz	1	0	Pickling.....	quart	0	6
Broccoli.....	bundle	0	3	Parsley per doz. bunches	2	0	4
Brussels Sprouts.....	1	0	6	Parasimps.....	doz.	0	9
Cabbage.....	doz.	1	6	Pea.....	quart	0	0
Carrots.....	bunch	0	4	Potatoes.....	bushel	2	0
Cauliflowers.....	100	0	0	Kidney.....	doz.	3	0
Cauliflowers.....	doz.	3	0	Radishes.....	doz. bunches	1	0
Celery.....	bundle	1	0	Rhubarb.....	bundle	0	9
Colworts.....	doz. bunches	2	8	Salsify.....	bundle	1	0
Cucumbers.....	each	0	4	Scazoners.....	bundle	1	0
Endive.....	doz.	0	0	Sea-kale.....	basket	2	0
Fennel.....	bunch	0	3	Shallots.....	lb.	0	0
Garlic.....	lb.	0	6	Spinach.....	bushel	3	0
Herbs.....	bunch	0	8	Tomatoes.....	doz.	0	6
Horseradish.....	bundle	3	0	Turnips.....	bunch	0	4
				Vegetable Marrows.....	doz.	1	0

WEEKLY CALENDAR.

Day of Month.	Day of Week.	NOVEMBER 19—25, 1874.	Average Temperature near London.			Rain in 43 years.	Sun Rises	Sun Sets.	Moon Rises.	Moon Sets.	Moon's Age.	Clock after Sun.	Day of Year.
			Day.	Night.	Mean.		m. h.	m. h.	m. h.	m. h.			
19	Th	Cambridgeshire Horticultural Show.	48.9	33.5	41.2	17	27 47	4 44	23 2	10 1	10	14 26	333
20	F		48.7	34.6	41.7	14	29 7	3 4	25 2	37 2	11	14 12	334
21	S	Crown Princess of Germany born, 1840.	49.6	36.2	42.9	26	30 7	2 4	50 2	6 4	12	13 57	335
22	Scn	25 SUNDAY AFTER TRINITY.	49.2	34.7	41.9	22	32 7	0 4	7 3	38 5	13	13 41	336
23	M	Cheltenham Chrysanthemum Show opens.	47.6	34.2	40.9	18	34 7	59 3	33 3	14 7	14	13 25	337
24	Tu	" " " closes.	47.4	31.7	39.5	14	35 7	58 3	9 4	47 8	15	13 8	338
25	W	Michaelmas Term ends.	46.4	33.7	40.0	22	37 7	57 3	0 5	11 10	16	12 50	339

From observations taken near London during forty-three years, the average day temperature of the week is 43.2°; and its night temperature 34.1°. The greatest heat was 62°, on the 25th, 1863; and the lowest cold 9°, on the 25th, 1853. The greatest fall of rain was 0.95 inch.

THE FLOWER BEDS AT THE CRYSTAL PALACE.—No. 3.



AN important advantage belonging to the enamel bedding is that very few kinds of plants are really necessary to produce an endless variety of these floral pictures; thus, for example, none of the beds which I examined closely were precisely alike, and yet the two or three designs figured in the first paper nearly exhausted the list of plants used here for this purpose. Not that this list is by any means an exhaustive one of available

kinds, for there is a perfect host of alpine and succulent plants—gems of most exquisite beauty, which I hope to see gradually brought into general cultivation for this purpose, as well as for the decoration of rockeries. This is the point to keep fully in view:—A taste for enamel bedding, and a consequent interest in the formation of designs and management of the plants, have now become general; to foster and strengthen this feeling something more than mere variety of design is necessary, and if we only draw our supplies of fresh plants from the rich store that is open to us, the popularity of the system will extend as it becomes more interesting and ornamental, and, what is even more important, the public will become intimately acquainted with a class of plants hitherto neglected, simply from ignorance of their very existence. A single specimen of any dwarf hardy plant rarely attracts more than a passing glance, but a mass of it generally arrests attention, and induces a critical examination. There can, therefore, be no doubt that the enamel style of bedding affords greater facilities than any other for showing not only the intrinsic merit of a plant, but its relative value to others for decorative purposes; moreover, it appears to me that this is precisely such an educational work as comes within the scope of the managers of large public gardens. Popular education is fairly triumphant over the old, dry, cramming process; and when it points to increasing profits and bulky dividends, as it undoubtedly does at the Palace, it assumes an importance that is perfectly irresistible, and to which the duller director has a lively susceptibility.

Thus much of future measures. For the present, or rather next season, it is so important that beginners should clearly understand with how few varieties great things may be done, that I will give here a connected list of the plants now most used in such beds. 1, *Alternanthera amena*; 2, *A. versicolor*; 3, *A. amabilis*; 4, *A. magnifica*; 5, *Tagetes signata pumila*; 6, *Lobelia speciosa*; 7, *Coleus Verschaffelti*; 8, *C. Verschaffelti Improved*; 9, *Echeveria secunda glauca*; 10, *Sempervivum californicum*; 11, *Gnaphalium lanatum*; 12, *Cerastium*; 13, *Geranium Duke of Edinburgh*; and 14, *Iresine Lindeni*.

The border between the upper rosery walk and the wire arches, the arrangement of which is shown in fig. 121, (page 442), was magnificent. The plants were in capital condition, the colours skilfully blended and thoroughly well

balanced, and whether regarded simply as a beautiful border or as part of a grand whole, it was equally satisfactory. Frequent objections have been made to ribbon borders from the air of monotonous formality that is inseparable from a number of parallel lines, and the skilful manner in which this difficulty is overcome here is worthy of attention. The broad mass of rosy *Alternanthera* stretching along behind the pale silvery *Echeveria* loses all the stiffness of a formal band by the graceful way in which it is made to sweep outwards, meeting the curvatures and assuming the character of the central lines, enclosing completely within itself the pretty masses of pale yellow *Mesembryanthemum*; thus imparting breadth, substance, and a full rich harmony to the composition precisely similar in its effect to that of a deep mellow bass in music. Mark, too, the importance of the alternating masses of pink and deep rich scarlet, still developed with tolerable excellence in old *Christine* and *Stella*, and which glow with more than common brilliancy from the fine contrast of the silvery variegated *Geranium*, which is thus effective simply because its flowers are kept picked-off. Then glance across the border, and try to take in its full significance—the bounding line of silvery grey with just a bluish tinge first meets us, quiet it may be in tone, but wonderfully effective; then come the carmine, crimson, and pink of the *Alternanthera*, the soft dreamy yellow of the *Mesembryanthemum*, the deep blue of the *Lobelia*—deeper too and all the more striking from contact with the fleecy *Golden Pyrethrum* that comes in with such wonderful power between it and the deep rich crimson of the *Coleus* over which the eye lingers luxuriously as it passes to the refreshing brightness of the lighter variegation behind; while the masses of pink and scarlet, though detached, yet exercise a very similar effect in the position which they occupy to that of the *Alternanthera* in front; and behind all are the flowers of white *Geranium* nestling so charmingly among the abundant green foliage, and forming with it an appropriate fringe and foil to the more brilliant colours. My object in dwelling at such length upon this border is not only to assist the earnest teachable student, but to show to those who object to such displays, regarding them as a mere “flash of colour,” that there are meaning and expression in every mass, or line, or colour, hidden, perchance, from those who rail at a system which they cannot understand, but fraught with that significance and poetry which invariably belongs to objects of beauty formed or composed upon the sound principles of art, and which the cultivated mind and refined taste never fail to enjoy fully.

I found a good deal of excellent enamel bedding upon the terrace, but it is unnecessary to dwell particularly upon the arrangement of the plants. It was undoubtedly good in every instance; but a description would simply take your readers through a repetition of the plants already named. The beds upon the turf at the upper fountains, consisting of a series of circles and oblongs connected by bars about a foot in length, thus—○=○=○=○=○=○=○, and so forming a continuous chain, have a very pretty

effect. They were arranged in the old style, and I was pleased to see the chaste effect in them of a uniform edging of the pretty *Koniga maritima*, an old but most useful plant. The fine old variegated *Geranium Lady Plymouth* also told well; it is an excellent variety, and, so far as I am aware, is quite distinct from any modern introduction. The vases were in great beauty, being well filled, and with an abundance of blossom upon the plants. Some large circular beds on the semicircular lawn in front of the south corridor, treated in a remarkably bold style, were very fine. The centres contained a mixed mass of Dahlias and Hollyhocks surrounded by a belt of yellow Dahlias, alternating with white in the next bed; this was enclosed by another belt of a fine, dwarf, dark crimson Dahlia, blending beautifully with a band of dark *Coleus* placed in front of it, and with an edging of *Golden Pyrethrum*. There were ten of these, beds and as they were placed singly, and some distance apart, near the margin of the curved part, they embraced nearly the whole of its bold sweep with excellent effect.

A detailed account of the planting in every bed or design

has a nice nutty flavour. The plant is easily grown in a pot in a stove, is about 1 foot high, and has rather pretty yellow flowers. Half way up the stem a root shoots out and turns down to the earth, where it forms a new *Pea Nut*.—W. D. A.

THE SAWFLY ENEMIES OF OUR FRUIT TREES.

Amongst the family of the Sawflies there are numerous species which prove more or less injurious to our fruit trees. Never a season passes, probably, without a certain per-centage of loss arising from these insects, which from their peculiarities of habit are often difficult to deal with. Some cultivators know only too well several species of the genus *Nematus*, allied

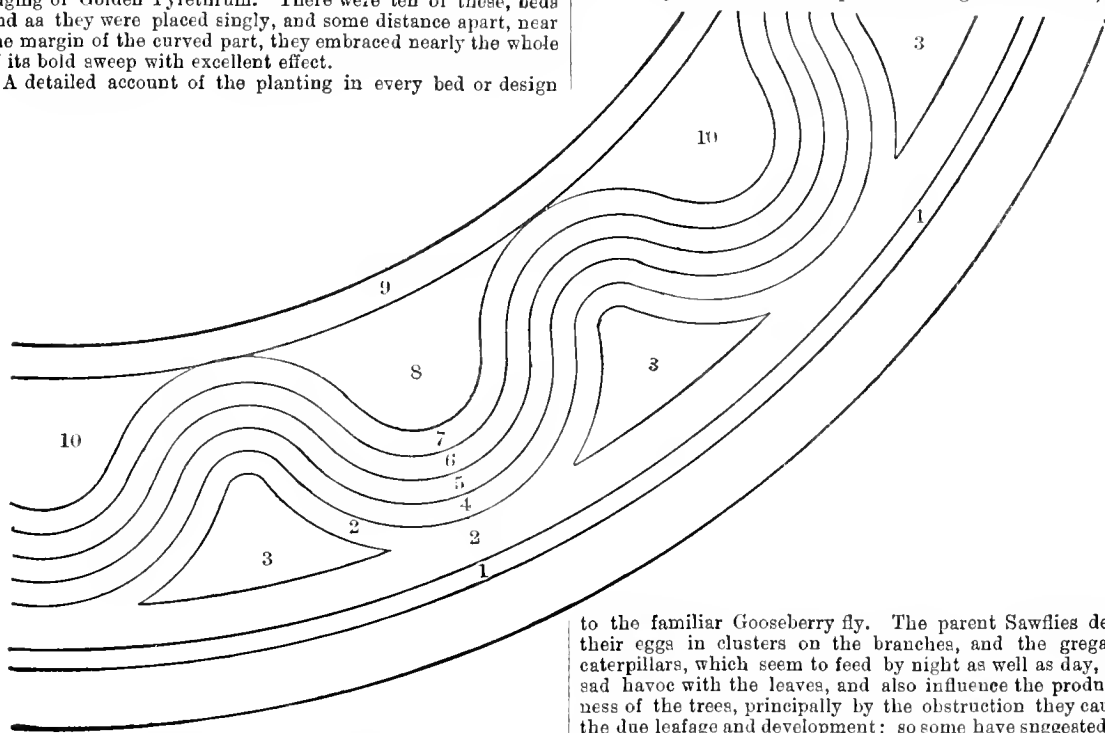


Fig. 121.—Border at Crystal Palace.

- | | |
|---|------------------|
| 1, <i>Echeveria secunda glauca</i> | bluish grey. |
| 2, <i>Alternanthera amara</i> | carmine. |
| 3, 3, <i>Mesembryanthemum cordifolium variegatum</i> .. | pale yellow. |
| 4, <i>Blue Lobelia</i> | deep blue. |
| 5, <i>Golden Feather Pyrethrum</i> | bright yellow. |
| 6, <i>Coleus Verschaffeltii</i> | deep crimson. |
| 7, <i>White variegated Geranium</i> | white and green. |
| 8, <i>Christine Geranium</i> | pink. |
| 9, <i>Madame Vaucher Geranium</i> | white. |
| 10, 10, <i>Stella Geranium</i> | crimson scarlet. |

has not been given, because it would be neither interesting nor instructive. I have striven rather to impart a critical tone to these papers in order to render them really useful, and I should be glad to take part in a discussion of the various systems of outdoor floral arrangements in the pages of the *Journal*; for I am sure that the very marked advance in taste and culture, or rather in art knowledge, that was evident in these and other public gardens which I have visited this autumn, must inevitably lead to a similar improvement generally. But the mere copyist can never do this well, there must be a thorough knowledge of the principles which rule all art works; and just in proportion to the mastery of this and its intelligent application will be our success in imparting depth, meaning, and fulness of expression to the association of what is elegant in form or beautiful in colour.—EDWARD LUCKHURST.

AMERICAN PEA NUT.—In answer to "Co. ANTRIM," page 408, this Nut is produced by *Arachis hypogæa*, a native of tropical Asia and Africa, and is imported in large quantities to Europe for the manufacture of salad oil; it is used in the United States roasted like Chestnuts, and eaten in theatres, &c. It

to the familiar Gooseberry fly. The parent Sawflies deposit their eggs in clusters on the branches, and the gregarious caterpillars, which seem to feed by night as well as day, make sad havoc with the leaves, and also influence the productiveness of the trees, principally by the obstruction they cause to the due leafage and development: so some have suggested that they actually poison the sap of the trees or plants they attack. Then, also, though fortunately these insects are not so generally distributed, species belonging to the genus *Lyda* visit Apple and Pear trees, *L. Pyri* especially forming disagreeable webs in which the larvæ partially secrete themselves. But not trusting entirely to the protection of this common habitation, each individual forms a separate case for itself, which may be either entirely of silk or partly of rolled leaves, resembling somewhat those formed by some of the small moths of the Tortrix tribe. Scarcely any of these larvæ move with any degree of rapidity, for they are without abdominal legs, though they possess two horny projections at the anal extremity; yet they are not easily extirpated, from their habits of concealment, and there really seems no better way than the removal and destruction of all branches seen to be infected.

Then there is that species which escapes notice on the wing, because it comes forth at a season when flying insects are abundant—namely, in May and June. This has been expressly named the Apple Sawfly, and perhaps it confines its attacks to that fruit; in science it is known as *Tenthredo testudinea*. Professor Westwood tells us that he has watched the females busy amongst the Apple blossoms, but they are so sensitive to alarm that he could not approach near enough to see the deposition of the eggs, which are probably placed in, or close to, the calyx. The fly, which is about three-quarters of an inch across the wings, has the upper surface of the body of a brilliant black, the sides of the head, antennæ, legs, and under side orange freckled with brown. The eggs are doubtless some little while ere they hatch. As soon as the fruit has made such progress as to afford the larvæ food they lodge themselves comfortably within the Apples, and the particular ones they favour of course go to swell the number of "windfalls," since

their proper ripening is impossible, and such infected fruit may be expected to make its way to the ground during July—accompanied by its internal enemy, let it be noted, for the larva sagaciously remains within until the Apple falls, to save itself the trouble of a long and perilous journey to the earth. This event having taken place, it very speedily pierces a hole in the rind, and seeks a convenient spot to bury itself. The larva of *T. testudinea* is directly distinguished from a Lepidopterous larva by its possession of twenty legs, exceeding by four the "regulation" number among the caterpillars of butterflies and moths, which does not go beyond sixteen, though falling as low as ten. Another peculiarity is that the body is very much wrinkled, the ground colour being a dull white with a pink line passing down the back; the head is tawny. As will be surmised, the pupation lasts through the winter.

It is to the species known as *Blennocampa* or *Selandria Cerasi* that I wish particularly to draw attention, because I rather apprehend that it will give us some trouble if we do not watch it. In America species of the genus have been recognised a long time by horticulturalists, and they are popularly called "Slug worms," not unsuitably. Some of them were noticed by Réaumur, who also termed them slug larvae. Of course, any person unacquainted with entomology would hardly credit the fact that flies will be developed from these, the aspect is so entirely different from that any ordinary larva presents. There are upwards of thirty British species of this genus. All do not, however, mask themselves from danger in this peculiar way, for protection is, I suppose, the object of the slimy disguise. Feeding only by night, and remaining on the leaves throughout the day, this exudation shields the larva from the summer or autumn sun, and may also ward off the attacks of parasites to some extent—only to an extent, though, for it may be assumed that *B. Cerasi*, like every other species, has a parasitic foe. How and when it makes an effective inroad upon the slime-clad larva is as yet a mystery. Slug-like as the larvae of *B. Cerasi* look, they are provided with the usual complement of legs, but they are very short, and the head being retractile and drawn under the next segment completes the deceptive appearance. In North Kent and other districts near London these larvae have been abundant throughout the past season, though in many places they seem to limit themselves to the Hawthorn hedges, which presented a sickly aspect, being attacked by *B. Cerasi* ere they had hardly been able to rally from the inroads of the little Ermine Moth (*H. padella*), which, owing to the backward summer we had, spread its unpleasant webs upon the bushes later than usual.

Gardeners and nurserymen, unfortunately, are not sufficiently alive to the necessity of dealing promptly with this species. It is folly to wait until it attacks fruit trees. When it has shown itself upon the Hawthorn we may be sure there is every probability that it will not stop short there, but make its way at last to Plum, Cherry, or even Pear trees, should such be handy. Observations with regard to *B. Cerasi* are as yet too few to enable us to judge as to what influence atmospheric phenomena have upon the species. In some districts in the midland counties it was seen in comparatively small numbers for three years preceding 1869; that year and 1871 it appeared in hosts, and was then noticed to decrease somewhat. In other parts of England it was exceedingly abundant in 1871-72; during the following year we did not hear much about it, and now it has again been troublesome. I am inclined to think that cold winds do not much affect the insect. Heavy rains would possibly annoy or destroy it by removing its exudation, and washing it from the leaves. Powdered hellebore has been proposed as a remedy, but as the editor of the "Entomologist" remarks, this is not a convenient nor a cheap application, even if proved effective. To pick the larvae off would be a hopeless task, and syringing with some of the approved compounds now in use may be deemed as likely a plan as any.—J. R. S. C.

SURPLUS VEGETABLES.

In the Journal of October 29th I noticed a suggestion by a correspondent signing himself "BETA," to the effect that in large gardens where there are so many surplus vegetables, it would be a better plan, instead of throwing them to the rubbish-heap, to sell them to the greengrocer. Now I should like to suggest an amendment to that plan. Very often where there is a large garden there is a farm attached to the estate, and of course there would be a number of men employed; now I think where they could afford to throw so many vegetables away, they could as well afford to give them away; of

course I mean to those employed on the garden and farm. For instance, at the place where I am living till lately all the surplus was thrown away, but now almost everything that is not absolutely required in the house is sold; there are six of us in the garden, and more than that number on the farm, and though we should be glad of a few vegetables, we never have any given us unless we ask, and we are not very fond of begging. As we work from six till six in summer, and from light till dark in winter, we have not much time to enable us to raise any for ourselves, and so we should consider it a great boon to get a few vegetables given to us now and then, and I think the loss would be very trifling to our employer.—F. W.

ANRICULAS.—No. 2.

ALTHOUGH in white edges both edge and paste are circles of white, yet they do not by that similarity lose all powers of contrast. There is always a delicacy of difference between the hoarfrostiness of the edge and the heavy snowfall on the paste. I think there is no lovelier form of the flower than the true white edge. It is the Anricula in her modest glory, in her bridal dress.

But as with the noble green edges, so with the gentle whites, the truly great are few. Smiling Beauty is the best one out. I make that reservation because I possess a plant of a young sort that is destined to beat Beauty everywhere but in her constancy. She is never out of character, and the young sort sometimes sports a little into undue size of its golden tube. But it will lead the beautiful class with its marvellously broad round petal, brilliant snowy edge, laid on as in no other; ground colour rich black velvet, delicately worked upon the pip; paste dense and brilliant; tube bright gold. As I am not the raiser I may say so much for this white seedling. Next to Smiling Beauty comes Taylor's Glory, and although I shall notice some other good whites, these three are the most perfect we have. Glory equals Beauty in its true white edge, but the body colour is a reddish violet plum, while that of Beauty is velvety black. Beauty is always circular in paste, and Glory wavy, by which it loses a point.

The failings of white-edged flowers are not few. Petals in this class are often pointed, and sometimes a little lacking in substance. Smith's Ne Plus Ultra is a really fine white, with rich chocolate ground colour, petals a little pointed. Smith's Ann Smith has a snow-white edge, ground colour a cold blue steel with a dash of violet, petal pointed. Lightbody's Countess of Dunmore is a fair white with chestnut ground, pip too pointed. Smith's League a good white, black body, petal pointed.

In properties of edge a common fault is that it is not dense or white enough. Hepworth's True Briton is fine as a white, but is often only a heavy grey edge; its petal is a model of breadth and smoothness. Such flowers as Trail's White Rival, Hinchcliffe's Lily of the Valley, Lowe's Maggie Lauder, Smith's Lady Sale, and Pott's Regulator are often only grey edges of various intensities; but can all come white, the last two are the best of them. Cunningham's John Waterston is a bold good flower, and classed as white, but like too many of them is frequently a grey. Again, in some varieties the white edge is dingy, or soon turns sere. This last is a fault in Taylor's Favourite and Lee's Bright Venus. In Popplewell's Conqueror and Lightbody's Fair Flora I have never seen a clean white edge at all.

In body colour the fault is mainly that of impurity, the meal creeping over it as in Countess of Dunmore, and notably in that nondescript Fair Maid, which should never have been sent out at all. Lee's Earl Grosvenor has occasionally come impure with me, but is mostly correct, and a very fine sort, and very late. Summerscale's Catharina and Ashworth's Regular are two real white edges, but under-sized. Regular is beautifully correct. McDonald's Miss Arkley is a little small as well, but a glowing flower, the white edge contrasted with a warm crimson ground colour that in certain lights produces an effect upon the flower like that of sunset upon snow. Lightbody's Robert Trail is an enormous plantmaker with rich pips, sometimes white-edged, and often too small and cramped in the two outer zones. Campbell's Robert Burns is fair, and Cheetnam's Countess of Wilton is a good old white.

All that I have named are worth growing, except Maggie Lauder, White Rival, Fair Maid, Fair Flora, Countess of Dunmore, and Popplewell's Conqueror. These are particularly beautiful in habit of foliage, but will not do for the exhibition table. Of the white-edged class, however, as a rule, we

must at present say that with all their faults we love them still, and I am not, therefore, to be understood as utterly condemning a flower because I mention its weak points, only we must naturally prefer those that have fewest.

And now we come to the selfs, or, as the old Lancashire men have it, "self-edged," and that not inaptly, for the breadth which in other classes is a belt of green, grey, or white, is in the selfs occupied by the body colour extending, without change of shade, to the petal edges. Hence the importance in this class of a bright yellow tube and brilliant broad paste, without which the flower has a heavy sleepy look. Selfs are not only a lovely class in themselves, but their effect among the others at blooming time is very grateful. Their quiet colours afford a rest to the eye that is confused by the rich jewelry of unrelieved masses of emerald greens, and pearly greys, and frosted whites. We have black and very dark selfs in Netherwood's Othello, Pohlman's Garibaldi, Spalding's Blackbird, Smith's Mrs. Smith, Sim's Vulcan, Walker's Nimrod, Kay's Topsy, Turner's Master Hole, and King Coffee, a seedling raised here; crimson in Campbell's Duke of Argyll and Lord Lorne; violet in Smith's Garland, Barker's Nonsuch, Smith's Pensioner, Clegg's Blue Bonnet, Whitaker's True Blue, and Turner's Cheerfulness; bluer shades in Spalding's Metropolitan, Lightbody's Meteor Flag, Smith's Formosa, and Hey's Apollo, affectionately called "Old Poll." We have various maroons in Sim's Eliza, Spalding's Bessy Bell, and Miss Brightly and Mary Gray; browns in Campbell's Pizarro and Headly's Petronella; dark crimsons in Lightbody's 172 and Lord Clyde; a lovely carmine lake in Berry's Lord Lee, though it has no paste; and yellows in Gorton's Stadtholder and Goldfinch, and best of all B. Simonites, a seedling of which my friend the raiser has but two plants and I the third.

Many selfs have a pale or watery tube, giving the flower a weak and vacant look. This is a class defect, and must be worked out. Most of them possess also a central depression or notch on the petal edge, whereas they ought to be perfectly Rose-leaved, as in Othello, Garibaldi, Nimrod, and Topsy. All selfs are flowers of thinner texture than the edged ones, and so bloom the earliest and pass away the first. Late-flowering selfs are much needed, and this is a valuable property in Duke of Argyll. It is the latest and one of the best selfs, a substantial crimson flower with splendid golden tube and brilliant white paste, but with the central notch. I have some scores of seedlings from it, and one gem already.

Out of the selection of selfs I have given I will briefly pick the best. Othello, Garibaldi, Blackbird, Mrs. Smith, Nimrod, Topsy, Master Hole, Duke of Argyll, Lord Lorne, Garland, Pensioner, True Blue (old rare sort), Spalding's Metropolitan, Meteor Flag, Eliza, Bessy Bell, Pizarro, Petronella, and Lightbody's 172, that puts aside Lord Clyde. My black seedling King Coffee is a young sort of only four plants. I wait to see if it keeps to its maiden promise of goodness.

In all I have said I have been guided by careful notes made of sorts that bloom in my own collection every year. I have also been intimate with them in other collections too, and I am quite aware that in some details, particularly in ground colours, all growers might not quite agree with me. The fact is that soils, localities, and air so variously affect the exquisite sensibility of the Auricula, that half a dozen growers from different counties might almost as much differ over the precise tint in a variety of the Auricula as the three worthies in James Merrick's familiar poem, who each of them thought that he knew best the real colour of the chameleon.—F. D. HORNBER, Kirkby Malzeard, Ripon.

FLOWERS WHICH OPEN AND CLOSE AT FIXED HOURS.—Sir John Lubbock, M.P., in his very interesting paper read at Belfast at the late meeting of the British Association held there, thus pleasantly alluded to this peculiarity among some of our own wildings:—"Many flowers close their petals during rain, which is obviously an advantage, since it prevents the honey and pollen from being spoiled or washed away. Everybody, however, has observed that even in fine weather certain flowers close at particular hours. This habit of going to sleep is surely very curious. Why should flowers do so? In animals we can understand it; they are tired, and require rest. But why should flowers sleep? Why should some flowers do so and not others? Moreover, different flowers keep different hours. The Daisy opens at sunrise and closes at sunset, whence its name, day's-eye. The Dandelion (*Leontodon Taraxacum*) opens at seven and closes at five; *Arenaria rubra* is

open from nine to three; *Nymphaea alba* from about eleven to four; the common Mouse-ear Hawkweed is said to wake at eight and go to sleep at two; the scarlet Pimpernel (*Anagallis arvensis*) to wake at seven and close soon after two; while *Tragepogon pratensis* opens at four in the morning and closes just before twelve, whence its English name, "John-go-to-bed-at-noon." Farmer's boys in some parts are said to regulate their dinner-time by it. Other flowers, on the contrary, open in the evening."

THE POMMIER DE PARADIS, OR FRENCH PARADISE STOCK.

A FEW years ago Mr. John Pearson, of Chilwell, a gentleman of great knowledge and experience in these matters, expressed an opinion in the pages of this Journal that the Pommier de Paradis of the French nurseries is a plant ill adapted as a stock on which to grow Apple trees in this country. This opinion was at once endorsed by Mr. Rivers, of Sawbridge-worth, a gentleman whose experience on such matters cannot be gainsaid; and both gentlemen gave instances in their experience why they had arrived at that conclusion. A very exhausting statement on this subject will be found by Mr. Rivers in vol. x. of this Journal at page 193.

In the same volume will be found some communications on the same subject by Mr. Scott, a nurseryman at Merriott, near Crewkerne, in which he contradicts the statements of Mr. Rivers, Mr. Pearson, and of the most eminent writers on the subject from Philip Miller downwards. I cannot follow the language he uses to these gentlemen in his controversy with them, but the tendency of his observations is to show that they do not know the true Pommier de Paradis, but that he does, and that he uses it exclusively as the best stock on which to grow Apple trees. He says, "The more I see of the true Pommier de Paradis stock the more I am convinced it is the stock to graft large Apples upon."

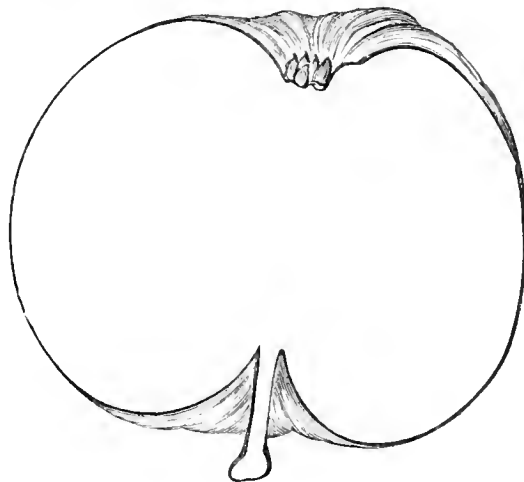


Fig. 122.

It was very important that it should be ascertained what the true Pommier de Paradis is, and also what Mr. Scott's Pommier de Paradis is. Mr. Scott communicated to Dr. Masters, of the *Gardeners' Chronicle*, some remarks on his stock, accompanied with specimens of the fruit, and to the kindness of that gentleman I am indebted for a specimen of the fruits, and from which the following figure and description are taken. The Royal Horticultural Society also moved in the matter, and procured from the most reliable sources in France trees of the true Pommier de Paradis, and through the careful management of Mr. Barron at Chiswick they have this year produced fruit. The result of this experiment is to prove that Mr. Scott's stock is not the Pommier de Paradis at all. The accompanying figures and descriptions taken from the respective fruits will convince anyone of the truth of this statement.

THE POMMIER DE PARADIS.

Fruit (fig. 122) with a balsamic fragrance, round, very angular, with prominent ribs on the sides, which extend to the apex, where they form sharp ridges, giving the fruit the appearance of

a small Calville. Skin smooth and shining without any trace of russet, greenish at first, but when kept of a fine lemon-yellow colour, with a faint blush on the side next the sun. Eye closed, set in a deep and ribbed basin. Stalk over half an inch long, slender, and rather deeply inserted. Flesh white, firm, crisp, very juicy, and briskly acid, with a fine balsamic aroma. Ripe in the middle of August.

MR. SCOTT'S STOCK.

The fruit (fig. 123) is small, very much like a russeted Golden Pippin, obtusely conical, even in its outline. Skin yellow, much covered with patches and reticulations of rough brown russet. The eye is very small and partially closed, with very short segments, and is set in a shallow narrow basin. Stalk half an inch long, slender, inserted rather deeply in a narrow cavity. Flesh yellowish, rather soft and spongy, not juicy, sweet. Core very small.

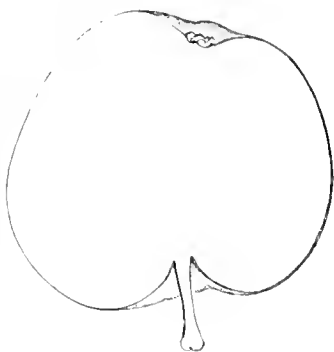


Fig. 123.

It is quite evident, therefore, that whatever may be the merits or demerits of Mr. Scott's stock, it is not the true Pommier de Paradis.—H.

VIOLETS.

I was written to last season by a Violet-grower because I spoke favourably of the Russian variety, when I said something to this effect, "that no other variety would take its place in every way." But I wrote advisedly, although I admit it is poor in shape, in length of stem, and is surpassed in colour; yet for freeness of flowering I have not seen anything to compare with it, if duration is added too. Brandyana is equally free, but only of about three or four weeks' duration.

I have had plants of the old Russian, that, apart from the flowers, could be covered with an egg-cup, with twelve or sixteen fully-expanded blooms at one time, others that could be covered by a teacup, with quite three times that number, so that for pots or in a border it is simply beautiful; but of course there must be culture for this, and then the blooms are generally all erect, which is not the case with many varieties—Devoniensis, Crimean, London, and some others for example. Of course I admit that the old Russian is far surpassed as a market Violet by many others on account of their shape, length of stem, size, and their colour too.

What I am anxious to get is not only size, scent, and colour (this we have in Victoria Regina; length of stem we have in many single varieties, as Devoniensis, London, Crimean, and The Czar), but erect habit and profusion of bloom. I do not dispute that Victoria Regina is the greatest improvement that has ever taken place, but that there is not very much room for improvement even now I must deny. Who would have thought some forty years ago of such a group of Cyclamens as Messrs. Veitch staged last March at South Kensington? Setting aside size, shape, colour, &c., and taking only the number of blooms on a plant, in a comparatively small pot you might have counted from five to nine dozen fully-expanded blooms; whereas the same size plant and pot forty years ago would have been all but a wonder to have had nine or ten, instead of so many dozen; and why may we not hope for something like this in the Violet?

I find Mr. Abbey is not favourable to growing Violets in pots. When I wrote the last paper for the Journal I had not tried to do this, and even now I know comparatively little of pot-culture; but since then I have learned that to produce them anything like passable they must be kept in a cold pit or frame near the glass, with the lights off every fine day, and with as much air as possible when it is raining, with a temperature as cool as can be, so long as it is above freezing. Apart from this there are drawn foliage, small flowers, weak stems—indeed anything but an agreeable sight; and even suppose

it is the temperature only that is too high, admitting that there is abundance of air during the day, you may get a dwarf compact habit of growth of plant but obtain no flowers. Just such were Mr. Mooreman's plants at the South Kensington Exhibition last March. Yet I am inclined to think that with a little practice we might have not only passable but even ornamental plants for the greenhouse or conservatory from November till March, which would, I think, be an acquisition. Of course there must be a supply kept up from cold pits, as the plants would soon become unsightly in the heat. It was intended to offer a number of prizes to promote this result, to begin at the first meeting in the year, to be repeated in February and March, and again in November and December, but I was unwell when written to, and could not attend to it; but if growers of Violets will give their attention to it another season, I may hope for something of the kind.—GEORGE LEE, Clevedon.

THE POTATO SEASON OF 1874.

THE Potatoes have had a very trying season to contend with in this neighbourhood. Frost did not take its final leave of us until after the 21st of June, and then severe drought set in, accompanied by great heat, which nearly prostrated the plant; indeed, the Ashleaf and other early varieties succumbed, and were prematurely ripened. They were taken up in the beginning of August; the crop was good, but they ran small.

The drought at that time had been so severe that the late varieties had scarcely formed any tubers, but from the 7th to the 16th of August we had $\frac{1}{2}$ inch of rain, after which they commenced to grow at the top in a most vigorous manner. In the last week of September the disease began slightly to show itself, and they were at once lifted. The crop was good beyond expectation, and many of the tubers very large, with no disease at the root, and a very slight amount of super-tuberation. They were put up in long narrow graves, in a fortnight were examined, and were then found to be half and in some cases more than that bad, and so rapid had the course of the disease been that many were quite rotten. The Dalmahoya were the least affected; the Pink-eyed Regents, York Regents, and Dunbar Regents being the worst. Sutton's Redskin Flourball, as usual, stood the best, and the quality is better than it is ordinarily, owing, I suppose, to the heat and drought. Those grown in the field surpass those produced in the garden in point of quality. It is becoming a great favourite with the cottagers, who appreciate its heavy-cropping and disease-resisting qualities. In looking over the cottage gardens and allotments for judging on the estate of H.R.H. the Prince of Wales last summer, comprising five parishes, that variety was found to be very generally cultivated, and the growers rather proud to be able to point out a good patch of Redskins.

I have always thought that the Potato was the most subject to the disease at a certain stage of its growth—viz., a short time before arriving at maturity, but I have a pit planted September 4th, the plants now about 15 inches high, and within the last few days they have been stricken very badly, with scarcely a bit of green left.—J. PLATT, Gardener to Sir W. Fjolkles, Hillington.

WHITE FLOWER FOR THE HAIR.

WHITE flowers suitable for decorating ladies' hair, bouquet-making, &c., being somewhat scarce, or at any rate not easily to be obtained all the year round by people who are not aided by a stove or hothouse, the plan which I adopt for supplying a want which is I think frequently experienced is as follows:—Take a bloom of any good white Fuchsia with a white tube and sepals not reflexed; holding the tube between the finger and thumb of the left hand, with the other hand remove the coloured corolla with a dexterous twist and pull. This leaves a beautiful cruciform flower of the purest white, somewhat like a gigantic Jasmine. Half a dozen of these made into a bunch with a little green or white tissue paper and a spray of Maidenhair Fern make a charming ornament for a lady's head, and one which will puzzle the uninitiated immensely. These blooms can also be wired for bouquets, and used in many ways. They are of a good firm texture, and stand hot rooms very well. The few people to whom I have shown the result like the effect of the flowers very much.—SALOPJAN.

[There can be no two opinions as to the beauty of the arrangement, but as it is not every one who could give the

"dexterous twist," we think the corolla might be more safely removed by the agency of a pair of sharp and pointed scissors. —EBS.]

UNHEALTHY PEACH TREES.

IN Mr. Luckhurst's article on Nectarines (see page 395) he mentions triple buds. Am I to understand that triple buds are the only ones that produce fruit next season? If such is the case I shall certainly have but a poor crop. If it is so, am I to prune all the shoots away that have no triple buds? I notice on my Peaches a good many little short stubby spurs about an inch long thickly studded with buds; are these likely to produce fruit? My Peach trees this spring have been terribly infested with a small shining black insect like a fly or very small beetle no larger than green fly, and they have appeared more or less all through the summer. They completely cover the ends of the young shoots. Can you tell me what they are, and advise a remedy? I intended to have the wall well dressed with hot limewash, wash the trees with soap and water, dress them as usual, remove 3 or 4 inches of the top soil, and give a dressing of some sheep dung, covering with some fresh loam.—INQUIRER.

[In doing work and telling how it is done, one strives to exemplify as high a standard of excellence as one can. It was for this reason that so much stress was put upon the merits of triple buds, because an abundance of such buds shows that the trees are in precisely the best possible condition of health and fruitfulness, and that in their culture the happy medium has been attained between a gross crude growth, or sterility, on the one hand, and a weakly diseased condition with under-sized poor-flavoured fruit on the other. The statement of "INQUIRER" shows plainly that his trees are in a very sickly condition. Instead of feeling anxious about obtaining fruit next season, his chief concern should be first of all to get the trees into a robust and healthy state, and depend upon it fruit plentiful and excellent will follow. It may, however, be a matter of considerable importance to "INQUIRER," that his trees should produce some fruit next season, and he may certainly obtain some from the spurs that are "thickly studded with buds," and also from the single flower-buds which frequently abound upon the slender growth of such weakly trees, but none of the fruit will do him credit.]

Bold and decisive measures should be adopted in the treatment of such trees. Let the roots and the soil in which they are growing be thoroughly examined, and if either prove faulty lift the trees. Mark a square space 6 feet by 6, taking out the soil 2 feet 6 inches deep, replace it with a 6-inch layer of stones or other hard rough material, and 2 feet of sweet rich loam; failing which only discard any of the subsoil of a crude sour nature, and enrich the soil with a liberal dressing of some gritty material, such as road scrapings, some broken charcoal, old well-rotted manure, and a little lime, mixing all together thoroughly. Then cut off any diseased or broken roots, and replant. If the situation is low or damp it will be necessary to connect the stations with the garden drains. If, however, in the first instance the roots appear to be healthy, and the drainage all right, the trees need not be lifted, nothing more being required than top-dressing with fresh loam and sheep dung, which should be mixed together and not applied in separate layers. All the very weak shoots should be pruned away and the leading growth shortened; then by applying water abundantly both to foliage and roots in the ensuing season, a better state of things may be confidently expected.

The insect with which the trees have been infested was most probably *Aphis Persicæ*, and the proposed curative will, doubtless, answer very well. Due caution should be exercised in dressing the branches to prevent any buds being damaged or broken off. Once get the trees into a vigorous healthy condition and this pest will not prove so troublesome, weakly trees being much more subject to its ravages than those that are sturdy and robust.—EDWARD LUCKHURST.]

DEATH OF MRS. HOOKER.—It is with great regret that we announce the death of Mrs. Hooker, of Kew, which happened on Friday last, the 13th inst., in the forty-ninth year of her age. Mrs. Hooker was a daughter of the late Professor Henslow, of Cambridge; and inheriting the tastes and genius of her father, was a fitting qualification for her to become the wife of the distinguished President of the Royal Society and Director of Kew Gardens. Mrs. Hooker translated *Le Maout and De-*

caisne's "Traité Générale de Botanique," which was edited by her husband; and we are sure that all who know Dr. Hooker will sympathise with him in his bereavement.

DO GRAPES RIPENED IN SPRING DIFFER IN FLAVOUR FROM AUTUMN-RIPENED?

HAVE any of our foremost Grape-growers noticed the difference in flavour between Grapes forced or ripened in early spring and summer, and Grapes ripened in autumn, the season of their natural maturity? and if so, would some such growers of Grapes, whether for exhibition or profit, inform us how far the flavour is affected, and in what particulars, by the mode and period of cultivation and ripeness? Can Grapes be pronounced ripe, in full flesh and flavour, at any time other than when Nature has decreed? or can Grapes be accepted to be dead ripe ere the fruit and leaf shoots of the Vine are brown ripe, and the foliage varied from green to its autumnal tints?

I am thinking, too, whether seeds from Grapes ripened out of their proper season—autumn, would germinate and produce vigorous plants; and if the pulp, too often wanting in untimely ripened Grapes, is not as essential to maturely-fed seeds as to the piquant taste of each class of Grapes in their season.

I may be venturing too far, perhaps, to question if any Vines forced and steamed, as we are taught, ever furnish fruit at any season of a flavour and substance that can be reported to satisfy the characteristics of the Vines thus treated. But what say our Grape-growers upon a less artificial and more natural course of culture, assisting greatly rather than spurring Nature unnaturally, in reference to the fruit of the Vine, its flavour and season?—READER.

FRENCH NOTES.

As the readers of the Journal have followed me in my wanderings this year, and have been told of the things most notable in a horticultural point of view that have struck me during those wanderings, I would close the account of my rambles with a few notes on what was the only holiday *pur et simple* of the year—my annual visit to Paris and its neighbourhood. In other tours there has been a combination of business and pleasure, but in this it was simply the latter. I could not for many reasons manage it before the end of September, a time when we often have very enjoyable weather; but when the days are short, and to one who is not a theatre-goer, this is a disadvantage in Paris, for, unlike London, there are no other places for spending an evening. However, I managed tolerably well, and, had the weather been a little better during the earlier part of my stay, should have had nothing to complain of. This hindered me, however, from paying a visit to the seed farms of Messrs. Vilmorin & Co., which I was very desirous of doing, but which a very wet day prevented me from. I spent one day, however, in visiting Sceaux, which was holding at that time its horticultural exhibition; and as we have heard a good deal of twaddle lately on exhibiting, and as we are constantly told how much better these things are done in France, I was glad that I had an opportunity of seeing an autumnal show in suburban Paris.

There is no place in the neighbourhood of Paris where an exhibition can be so successfully held, I should think, as at Sceaux. There are the fine fruit nurseries of Jomain and Durand close by, the extensive Rose grounds of Margottin père et fils, the fine nurseries of Thibaut & Keteleer—in fact, nurserymen of all kinds abound here. It was, of course, too late for outdoor flowers, although the very fine autumn had been favourable to the blooming of Roses; still there were some things which one might have expected to see, but I must say in these respects I was miserably disappointed. The Exhibition was held in the park attached to the old chateau of Sceaux, which has passed into the hands of the public and been made a promenade. It was held partly in what is called the "Rotonde," a round building open all round with a canopied roof, in a tent adjoining, and in the open air: this was all in a part divided off from the rest of the park, entered by some fine old avenues of clipped Horse Chestnuts. The Exhibition was open for a week—a miserable mistake, I should think, in every point of view, as the plants and fruits became spoiled, and it was no very edifying sight to see rotten Pears and Apples in every dish of fruit exposed.

And now as to arrangement. I cannot say that there was anything that struck me as worthy of being copied. The Ro-

tonde had a central bed with Cannas, Caladins, and Aralia Sieboldi; and the fruit was arranged on tables that went round the whole circle of the building, and was displayed, as with us, in plates and dishes without the least degree of ornamentation; then bunches of Dahlias, with flowers not one-half the size of those seen with us, were set up in bottles; and Gladioli, the veriest trash, were shown in champagne bottles. But Roses! Ah! here is doubtless something to be gained. Did ever anyone read such a lot of twaddle as has been lately written on the subject of exhibiting the queen of flowers? Well, my old friend Margottin had an arrangement which might perhaps command the consideration of those fastidious gentlemen who are dissatisfied with the present boxes. True, it is cumbersome, would involve taking a truck for oneself and about half a dozen hours to set them up before the show began. But what of that to persons who are wanting a change? It looked pretty, but as to its being natural, why, we won't say anything about that. It consisted of a large framework of zinc about 15 feet long, with six rows of tubes, from which issued, about 6 inches apart, small tube-like sconces into which the Roses were put (see figs. 124 and 125). Placed at the end of the tent it looked pretty enough. Whether it will commend itself to our Rose-growers is another matter. I think I am pretty sure of the reply. Margottin told me that as it was close at home it was possible, otherwise it would not do. There was not a Rose in it above the average merit of our garden flowers. The vegetables were arranged in collections on plates and dishes in

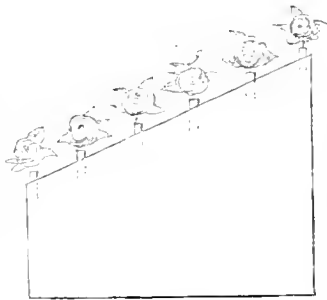


Fig. 124.—Elevation.

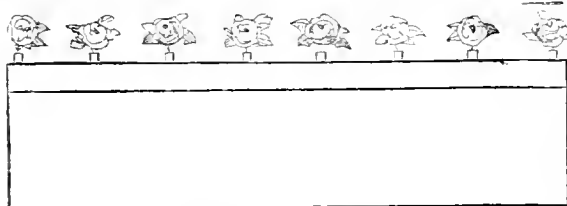


Fig. 125.—Front view of one row.

the open air; and as there had been some heavy rain, it was not a very edifying spectacle to see Peas and Kidney Beans floating about in little pools of water. The only really noticeable piece of arrangement was in the entrance, from whence an avenue of trained fruit trees exhibited by Messrs. Jamain and Durand and Messrs. Cronx et fils led up to the Rotonde, the other side being formed of a very poor collection of evergreen shrubs and Conifers. Thus in the much-vaunted arrangements of our neighbours I really saw nothing that we need either envy or imitate. I have ever maintained that it is so. There is sometimes prettiness about them, but of grand and massive grouping there is really nothing. The plants are feeble, and if they have merit it simply arises from the numbers grouped together.

Now with regard to the character of the exhibits. Of flowers there was literally nothing; of stove and greenhouse plants a plentiful scarcity of anything really good; a large collection of Begonias of the tuberous-rooted kinds, but just such as one might pick out of any nursery at the present time. The Dahlias, &c., were simply ridiculous. The fruit, as might be supposed, was very good, but I cannot understand why, after three or four days, there should have been so many specked fruit. Many of these collections were exhibited, not by individuals but by societies, whose members contributed together what made up the display. Thus, in one collection there were 350 sorts of Pears, 75 of Apples, and 45 of Grapes. Amongst the Pears were some fine specimens of *Benrre Diel*, *Triomphe de Jodoigne*, *Benrre Claircean*, *Bergamotte Suisse* (striped), *Duchesse d'Angoulême*, *Bon Chrétien*, *Napoléon*, *Catinka*, *Bon Chrétien d'Espagne*, *Crassane*, *Catillac*, *Uvedale's St. Germain*, *Passe Colmar*, *Doyenné d'Hiver*, &c.; while of Apples, *Emperor Alexander*, *Calville Rouge*, *Reinette Grise*, and *Cal-*

ville Blanche were the most remarkable. As to Grapes I really did not think there was anything worth noting; the bunches were small and the berries also, and the names placed to them were utterly unknown to me.

Neither, then, in arrangement nor in the quality of the articles exhibited do I think that we have anything to learn; and I cannot but say that I felt somewhat pleased, after all that has been said on the subject, to have my often-expressed opinion thus confirmed—that of whatever other things it may be true, it is unquestionably not of horticultural exhibitions, that they do these things better in France.—D., *Deal*.

THE ROYAL HORTICULTURAL SOCIETY'S CHRYSANTHEMUM SHOW.

THE present Council, being amenable to reason and common sense, took the advice of those best acquainted with the growth of this favourite autumn flower, and instead of having their Show so early in the month that none were in flower, fixed it for the 11th; and as the season was a remarkably early one they were rewarded by seeing gathered together the finest collection that ever was collected in the conservatory and arcades in November; and as they had wisely, too, offered some good prizes, there was a spirited competition both amongst nurserymen and amateurs.

There will always be differences of opinion relative to the training of these plants, some preferring those grown on single stems and holding three or four blooms, others those trained on the broad flat system, and others as pyramids. The latter seems to be the most natural, and, as far as my own judgment goes, the six which obtained the first prize amongst amateurs in the Pompon class were the prettiest plants in the Exhibition. Then as to cut blooms, what grand specimens there were there! but how wonderfully dressed! Now, I cannot for the life of me see why, if it is disqualifying to gouge out the eye of a Dahlia, it is pardonable to do the same with the Chrysanthemum. The result was, however, very fine, and finer blooms than some of those exhibited on this occasion were probably never seen.

In Class 1, for twelve plants, there was a very close run between Mr. James and Mr. Cutbush, the former taking first and the latter second. In Mr. James's collection were Prince Alfred, Pink Perfection, Mrs. Halliburton, Jardin des Plantes, Julie Lagravère, Fanst, Empress Eugénie, Golden Eagle, Mrs. George Rundle, Lord Derby, Antonelli, Eve. Mr. Cutbush's plants were Mrs. Sharpe, Annie Salter, Princess Louise of Hesse, Hermine, George Glenny, Mrs. Rundle, Julie Lagravère, Her Majesty, Abbé Passaglia, Prince of Wales, Gloria Mundi, and Christine. In Class 2, for six large-flowered Chrysanthemums, amateurs, the first prize was won by Mr. Hall, gardener to W. Stevens, Esq., Brixton, with fine plants of Golden Nugget, Prince of Wales, Gloria Mundi, Mrs. George Rundle, Lady Harding, and Mr. Gladstone. Mr. Douglas was a capital second with White Venus, Prince of Wales, Her Majesty, Venus, Aurea Multiflora, and Mrs. George Rundle. In Class 3, for twelve Pompons, Mr. Douglas took the first place with beautiful plants of Lilac Cedo Nulli, James Forsyth, Golden Circle, Aurore Boréale, Hélène, Cedo Nulli, St. Michael, President, Golden Cedo Nulli, Madame Martha, Antonius, and Brilliant. Mr. Cutbush had a fine lot of nearly equal merit, comprising Cedo Nulli, Mr. Astie, Mrs. Rundle, Salomon, Brilliant, Andromeda, Madame Martha, Mrs. Hutt, Miss Julia, &c. In Class 4, for six Pompons, amateurs, Mr. Harding, gardener to the Rev. W. Arthur, Clapham Common, was first with beautifully-grown plants of Astræa, Cedo Nulli, Bob, Calliope, Antonius, and Golden Cedo Nulli. Mr. Butcher, gardener to R. A. Glover, Esq., was second with larger but more artificial plants of Andromeda, Calliope, Bob, Cedo Nulli, Antonius, and Golden Cedo Nulli.

Passing by the specimen plants, let us look at the magnificent cut blooms exhibited by Mr. James Cutbush. The flowers were Empress of India, Mr. Howe, Hero of Stoke Newington, Queen of England, Princess Teck, Plenipo, John Salter, Prince of Wales, Lady Slade, Jardin des Plantes, Nil Desperandum, Nonpareil, Cherub, Lady Talfourd, Antonelli, Miss Marechaux, Mrs. Halliburton, Thais, Princess Beatrice, and Isabella Bott. In twelve cut blooms, amateurs, Mr. E. Smith was first with Novelty, Alfred Salter, Golden John Salter, Empress of India, Jardin des Plantes, Mr. Drudees, Princess of Wales, Baron Beust, White Venus, Venus, and Mrs. Heale. In these collections we shall not be far wrong in saying that the very best Chrysanthemums for exhibition purposes are to be found. There are some others, of course, but an exhibitor may well depend on the flowers named for all purposes. There were some fine blooms of these curious but, in my opinion, most effective flowers, the Japanese varieties, Mr. Hannell taking first and Mr. Douglas second. The latter exhibitor's stand contained *Ereeta Superba*, *Fair Maid of Glastonbury*, *Ap. No. Rosea Punctata*, *Garnet*, *Bismarck*, *James Salter*, *Meg Merricks*, *Magnum Bolum*, *Prince Satsuna*, *Bronze Dragon*, and *Grandiflora*. There are other exhibitors of this flower coming in, and

those who wish to add to their collections had better be on the look-out, although very little of novelty, as Mr. Douglas observed in last week's Journal, has been added since our good old friend John Salter had to give up his cultures, those which have been brought forward being only sports of older kinds, and not new seedlings. No flower is more easily grown; but let no one imagine that such blooms as were exhibited at Kensington are to be obtained by the slipshod system of cultivation to which the flower is too often subjected, nor in truth would I for one care to grow them thus. I much prefer a quantity of medium-sized blooms to three or four, or even one large one, on a plant. This will satisfy the many; the exhibitor will "gang his ain gait," and produce these large flowers with which he in truth astonishes the natives, and would most likely astonish the Celestials themselves.—D., *Deal*.

It is many years since an exhibition of this flower has been held in London at all approaching in extent to this, which quite filled the centre of the large conservatory and overflowed into one of the arcades. The collections of plants in pots were the subject of much criticism; the style of training is considered too formal, the method of tying the growths down to produce dwarf specimens being objected to. One or two of the collections were very bare of foliage, which brought into rather prominent notice the sticks and matting used in training—indeed one or two specimens were as nearly dead as possible; and if exhibitors thought they were worth the cost of conveyance to the Show they were certainly not worth carting home again, as they were not adapted for any decorative purpose whatsoever. But this was a very small matter in an Exhibition where there was so much to admire that was really good, and that displayed no small amount of horticultural skill.

First in the schedule was the large-flowered section, divided into classes for nurserymen and amateurs, and some of them being wisely left open, so that amateurs and the trade could enter the lists in friendly combat, the former, as the prize list proclaimed, proving the victors. For twelve specimens Mr. James, gardener to W. F. Watson, Esq., of Isleworth, was first; and this exhibitor does not so much try for large plants as for quality of flowers, and the plants well furnished with healthy deep green foliage. Messrs. J. Cutbush & Son, of Highgate, showed well in this class, as did Mr. J. Herrington, gardener to J. Price, Esq., of Clapham Park. But the best specimens in the Show were exhibited in the next class, which was confined exclusively to amateurs. Those holding the highest position came from Mr. W. Hall, gardener to W. Stevens, Esq., of Brixton; Mr. J. Douglas, gardener to F. Whitbourn, Esq., of Ilford, being placed second, and Mr. James third. The best specimen in the nurserymen's class was a very fine one of George Glenney. Mr. Douglas had a well-flowered specimen of Mrs. G. Rundle, which had the highest award in the amateurs' class.

In the open class for twelve Pompon sorts Mr. Douglas had the first prize, Messrs. Cutbush being second, and Messrs. S. Dixon & Co. of Hackney third. The amateurs' class was exceedingly well filled, but as all the prizetakers' names were published in your advertising columns last week it is not necessary to enumerate them again. A passing remark may be made about the size of the pots in which the plants are grown. At Stoke Newington, Stratford, and other local centres a limit is made, and this has the advantage of causing a uniform growth; exhibitors likewise compete on more equal terms. At Kensington I was told that three plants were potted in one pot in some cases. My own plants were grown with only one in each pot, and so that the stem could be distinctly seen above the soil; the Pommpons in 8½-inch pots and the large-flowered specimens in 11½-inch, except in the case of the large single specimen, which was grown in a 17½-inch pot.

Cut blooms were very numerous and of excellent quality. I do not remember to have seen better specimens than those exhibited by Mr. E. Smith, gardener to T. D. Galpin, Esq., of Putney Heath. Mr. J. H. Hennell, gardener to F. A. Davis, Esq., Surbiton, had also very fine examples, and his first-prize Japanese flowers were the best ever exhibited. Messrs. Veitch, of Chelsea, had some good flowers of both sections, but the best were over before the Show, as, fine though their flowers were, they were not equal to some I saw at Chelsea more than a week previous. The same firm also exhibited some very distinct new varieties; amongst them a hybrid between a large-flowered Anemone and a Japanese; it seems to have some of the Jane Salter blood in it. The disc is rosy lilac, the florets shaped like those of Jane Salter, but pure white; if it is from this variety the colour is in the disc. Altogether it is a very distinct plant, and may be the forerunner of a new class. Gold Thread has a tuit of slender golden-bronze-coloured florets, and is very distinct and attractive. These two and one named Cossack had first-class certificates awarded to them.—J. DOUGLAS.

THE ROYAL BERKS SEED ESTABLISHMENT ANNUAL SOIRÉE.—The annual *soirée* given to the *employés* of Messrs. Sutton

and Sons, seed merchants, Reading, took place on the 9th. This year, owing to the increase in the number of hands, the annual dinner was served-up in one of the spacious seed-stores in the new buildings, which was fitted-up for the occasion, instead of in the Abbey Hall, at five o'clock. An excellent and substantial dinner was partaken of by about 160 *employés*.

EARLY ENGLISH WRITERS ON GARDENING.

No. 1.

THOMAS HILL.

In the sixteenth century a taste for gardening had become so widely diffused among the higher classes of society, that they sought for information concerning its practice. Practical gardeners were totally uneducated, and the only men capable of publishing information were those who would write upon any subject for which the booksellers would pay them. Thomas Hill was one of this tribe, and as he knew nothing of gardening his only resources were the old Greek and Latin authors. These he translated, and unreservedly acknowledged that they were the sources from which he drew his particulars.

Thomas Hill seems to have been born in the year 1543, for his portrait prefixed to his "Pleasant History declaring the whole art of Physiognomy," states it represents him in his



Fig. 126.—Thomas Hill.

twenty-eighth year, and the volume was published in 1571. He is described on the title-pages of his publications "citizen of London" and "Londoner," but whether those designations indicate his birthplace as well as residence I cannot determine. It seems evident that he adhered to the Protestant party, for his first publication is dedicated to Sir Henry Seymour, of Marwell in Hampshire, who was enriched by many grants of conventual lands before his death about 1578; his translation of Coele's work on "Physiognomy" is dedicated to "the Right worshipful Master George Keable, Esquier," another Protestant; and his posthumous work, "The Gardeners' Labyrinth," is dedicated by his friend and editor Henry Dethicke to Cecil, Lord Burghley, Queen Elizabeth's leading statesman.

That Hill was of gentle blood is intimated by his liberal education and by his friendship with such a man as Henry Dethicke, who was the third son of Sir Gilbert Dethicke, principal King at Arms and an antiquary. His brother, Sir William Dethicke, was one of the antiquaries who in 1593 originated a Society that was the seed of our Society of Antiquaries. Henry was a sizar of Gonville Hall, Cambridge. His various promotions are detailed in "Notes and Queries," 2 series, xii., 383. He died in 1613.

Hill's first publication appeared in 1563 in the form of a small duodecimo entitled, "A most briefe and pleasant treatise teachynge how to dress, sowe, and set a Garden." This was enlarged by degrees to the quarto volume, "The profitable Arte of Gardening, to which is added much necessarie matter and a number of secrets, with the Phisicke helps belonging to each hearbe, and that easily prepared. To

this is annexed two proper Treatises, the one entitled *The marvellous government, proprietie, and benefite of Bees, with the rare secretes of the honnie and waxe.* And the other, *The yerely conjectures meete for Husbandmen.* To these is likewise added a Treatise on the *Arte of Graffing and Planting of Trees.*" The first edition of this was published in 1568, and how acceptable it was, and ministered to the growing taste for gardening, is shown by other editions appearing in 1571, 1579, 1586, 1593, and 1608, of which copies are in the library of the British Museum. The edition of 1586 is the last which appeared in Hill's lifetime; for we learn from Dethicke's dedication of "*The Gardeners' Labyrinth,*" published in 1591, that its author, his friend, was "lately entered."

Although all that Hill published relative to gardening are confessedly translations of the Greek and Latin writers, yet

there are mingled with them notes of what he saw and heard of the gardening of the years in which he lived. Some of these notes are here republished, but they will be as he published them, without any system, for the gardens in his days combined the kitchen, flower, and physic departments.

Mazes were then thought clever inventions, and he gives three plans of them. "One of them, which liketh them best, may be in that voyd place of the garden that may best be spared for the onely purpose to sport them in at times."

Lavender "at this day growing in most gardens, is occupied in baths and in the washing of hands, for the sweetnes of smel, therefore of most men named the Lavender," implying that it was derived from to lave or wash.

The "Lillie of the Valley is a flour mervalous sweete—now

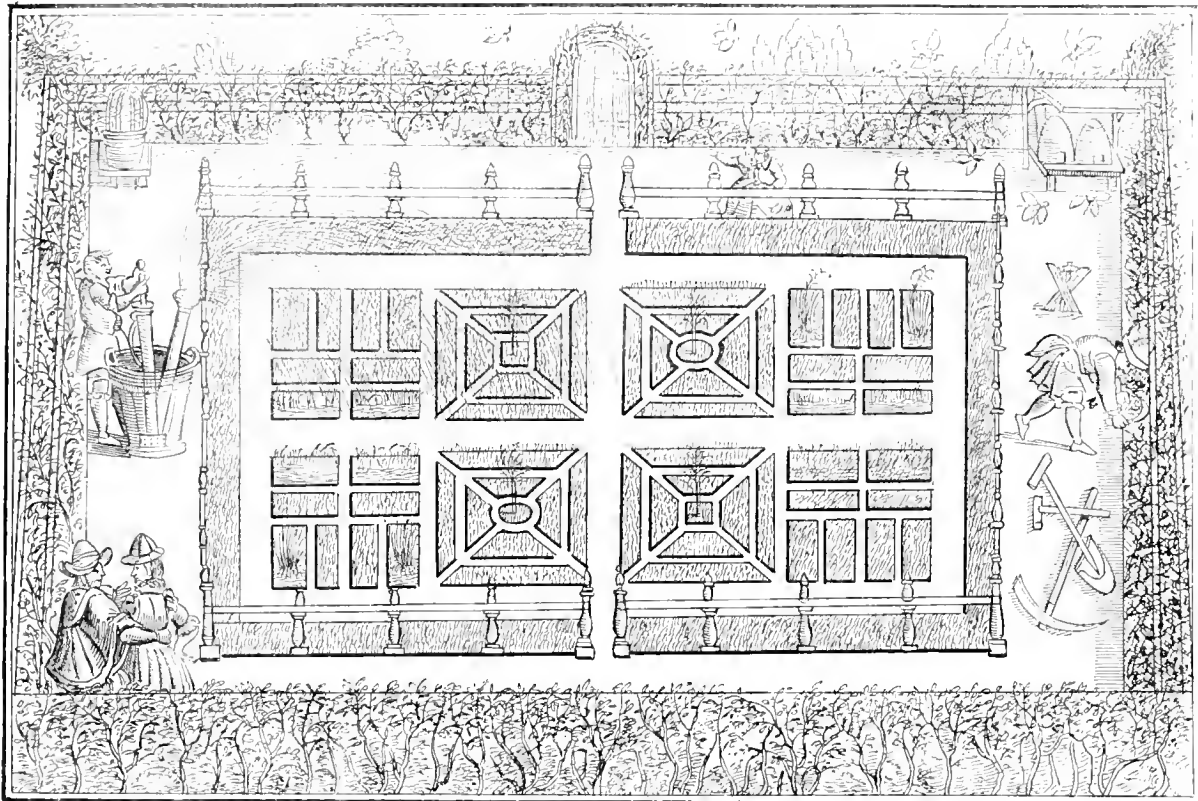


Fig. 127.

for the great commoditie and use known of the floure of late yeares is brought and planted in gardens."

Radishes were then, as now, a popular vegetable "well known both unto the rich and poore, so that as well the husbandmen as the eittizens doe at this day eate of the Radish, the same before being well scraped, cut into thin round slices, and dipped in water and salt."

I have spoken of "*The Gardeners' Labyrinth*" as one of Hill's publications; and it is so, for although on its title-page the author is named "Dydymus Mountain," I pointed out some years since in "*Notes and Queries*" that Didymus is a synonym of Thomas, and Mountain an exaggeration of Hill. However, all doubt upon this is removed by Hill's contemporary Edmund Southerne, who states in his book on bees, published in 1595, "*Thomas Hill of London*" was author of "*The Gardeners' Labyrinth.*" This is only an amplification of "*The Arte of Gardening.*"

It contains more woodcuts of the flower-knots, rude precedents of our bedding-out; the construction of arbours, then called "herbers;" the arrangement of beds and modes of watering. One woodcut showing their water-syringing so illustrates the whole that we have had it copied (see fig. 127).

It does not show that our garden implements were then much improved either in workmanship or by new inventions,

except that watering engine; but all the Roman implements were introduced into England during its four-hundred-years occupation, and we have drawings of many in the Anglo-Saxon MSS. Scarcely one of the chief implements we now use were unknown to them. Baskets made of osiers; bills, "crooked hatchets;" pruning books and pickaxes; brooms made of twigs; flower pots of earthenware; knives with crooked blades for pruning; rakes, the Roman had but four teeth, but the Anglo-Saxon was like that now used in haymaking; saws; scythes, but the stale was straight and without handles; apades with demi-oval blades, and an iron above to put the foot on when digging, and these were the same when the annexed cut was drawn; hoes, and one combined with a rake. Watering pots seem to have been employed by the Greeks, but we do not remember any notice of them by Roman writers. One of the earliest mentions of them is by Shakespeare, who puts the phrase into Lear's mouth, "To use his eyes like garden water-pots for laying autumn's dust." Wheelbarrows also appear to have been unused by them.

Contrary to modern usage, then "the Beete was more often eaten at poore men's tables;" and Endive was blanched by binding the leaves together "with a browne thread and covering them after with a pot of earth."

I might quote many more instances of the gardening of three

hundred years ago, but have referred to a sufficiency to show the early commencements of our modern practices.—G.

PORTRAITS OF PLANTS, FLOWERS, AND FRUITS.

PASSIFLORA (TACSONIA) MANICATA. *Nat. ord., Passifloraceæ. Linn., Monadelphia Pentandria.*—Flowers scarlet. "This lovely plant has been for many years cultivated in England, though not so extensively as it deserves, having had the reputation of not flowering freely. It was introduced previous to 1850 by the Horticultural Society, through its collector Hartweg, who found it in hedges near Loja in Peru, where, indeed, it was discovered by Humboldt and Bonpland half a century previously. It is also a native of the Andes of Ecuador and New Grenada, where it was found by Purdie on the arid plains of Suta Marchan, and is there called Ruruba de Senene. A similar undescribed species, or perhaps a variety of this, with white flowers, was gathered by Pearce at Puquina (in Peru?), at an elevation of 10,000 feet."—(*Bot. Mag.*, t. 6129.)

CERINTE GYMNANDRA. *Nat. ord., Borraginæe. Linn., Pentandria Monogynia.*—Flowers yellow and purple. "A very rare European plant, hitherto found, as far as I am aware, only near Naples, whence I have seen specimens collected by Heldreich; it is, however, common in some parts of Western Algeria, as at Oran and Elidah, growing in sandy places, and in Morocco. Though hardly different from *C. major* (Tab. nost. 333), as pointed out by Wilkemm and Lange, it is a very beautiful form of the genus, well worthy of cultivation, but unfortunately annual. One of its most striking characters is the discoloration of the tips of the leaves; these in all our specimens are of a fine pale glaucous blue, except at the very end, which is pale greenish-yellow, bounded towards the midrib by a dull dark purple band; thus the colouring of the leaf-tip is a repetition of that of the flower, and gives a bright appearance to the whole plant. From the above-quoted figure of *Cerinte* the major in this Magazine, the present differs in the yellow tubular terminal portion of the corolla, the narrower sepals not cordate at the base, and foliage. But little dependance can be placed on these characteristics in so variable a genus.

"Our specimens were raised from seed sent by Messrs. Haage and Schmidt, and flowered in July."—(*Ibid.*, t. 6130.)

MELALEUCA WILSONI. *Nat. ord., Myrtaceæ. Linn., Polyadelphia Polyandria.*—Stamens deep lilac. "This is one of that large class of hardwooded Australian plants which, if properly cultivated, would ornament our conservatories and greenhouses at seasons when little else worth looking at meets the eye, but which have almost throughout the country succumbed to the treatment they have received—namely, of watering in season and out of season. The genus to which it belongs contains just one hundred species, scattered over all parts of Australia, amongst which are some of the most brilliant-coloured plants of that gay Flora. The present is essentially a dry-country species, inhabiting the desert of the Tattave country, Port Lincoln, &c., in South Australia, as also the country around Lake Hindmarsh in the colony of Victoria. It was raised at Kew from seeds sent by Baron Muller from the Melbourne Botanic Garden, when he was director of that rich botanical establishment; and was named by him after Mr. Charles Wilson, through whose aid, he states, this very beautiful species was discovered."—(*Ibid.*, t. 6131.)

IRIS LÆVIGATA. *Nat. ord., Iridaceæ. Linn., Triandria Monogynia.*—Flowers deep reddish purple. "This beautiful hardy plant is likely to become as great a favourite in England as it is said to be in Japan. It was originally introduced by Von Siebold from Japan, and flowered in Verschaffelt's establishment at Ghent in 1857, when a very pale variety of it was figured by Lemaire in the 'Illustration Horticole.' As it there appeared under the name of *I. Kempteri* of Siebold, I suppose that this latter author identified it with the *Sziti* or *Itz falz* of Kämpfer (Amen. Exot., p. 873), a plant which Kämpfer describes as an Iris with large double flowers, and which flowers during many days. Hasskarl (Miquel Protus., p. 306), says that it is the *Itsi Katsi* of the Japanese. Whatever may be its Japanese name or the history of that of Kämpfer, it was no doubt first long previously described from Eastern Asiatic specimens by Fischer as *I. lævigata*. It is a native of East Siberia from the Baikal and Dahuria to Kantschatka, the Amur district, and Korea, and it thence extends to the northern parts of Japan."—(*Ibid.*, t. 6132.)

POLYGONATUM VULGARE var. MACRANTHUM. *Nat. ord., Smilacæe. Linn., Hexandria Monogynia.*—Flowers white, tipped with green. Native of Japan. "The size of the flower is perhaps the most noticeable feature of the plant here figured, though in that it is rivalled by both European and North Asiatic specimens; the inflation of the corolla above its middle and its slight contraction at the throat are other characters, which, however, disappear as the corolla withers and its lobes connive. Decaisne and Morren observe that the style exceeds the stamens in their *P. japonicum*, which is no doubt a sexual difference. In the form of its foliage it agrees best with the North America *P. commutatum*, Dietr. and Otto, which has a terete stem. Lastly, having regard to the variability of the alternate-leaved *Polygonatums*, it would not surprise me to find that all were referable to two, the *P. vulgare* with a grooved stem, and *P. multiflorum* with terete stem.

"The subject of the present plate has long been cultivated at Kew under the name of *P. japonicum*, and it flowers in April."—(*Ibid.*, t. 6133.)

BLUMENBACHIA (CALUDORA) CONTORTA. *Nat. ord., Legum. Linn., Polyadelphia Polyandria.*—Flowers scarlet. "It is a climber, native of Peru and Ecuador, where it ascends to an elevation of 12,000 feet; should it prove as hardy as the charming *B. lateritia* (*Loasa lateritia*), it will be a very ornamental wall plant in most parts of England. It is probably, like that plant, a biennial. It was raised from Peruvian seeds by Messrs. Veitch, and flowered in their grounds in July of the present year."—(*Ibid.*, t. 6131.)

LILIUM WASHINGTONIANUM PURPUREUM "is a beautifully tinted variety of *L. Washingtonianum*, described as being smaller in stature and more slender in habit, with a stem of 1 foot to 1½ foot high, furnished with oblanceolate leaves from 1 inch to 1½ inch long, and crowned by a raceme of from four to eight or more very handsome flowers. The perianth is bell-funnel-shaped, with the segments very much reflexed, white stained (more deeply in the older flowers) with wine-purple, and dotted all over with minute spots of blackish-purple. It also flowers in July.

"The introduction of this variety is due to Mr. W. Bull, by whom it was imported, and distributed in some quantity at Stevens' Auction Rooms in the latter part of last year, under the name of *L. purpureum*, which was attached to it in accordance with the descriptions received from California, where it is found in the Yosemite Valley. Mr. Bull observes that he has never found *L. Washingtonianum* to bloom in the precocious way that this variety does; the bulbs, moreover, are different. Another distinction is, that *L. Washingtonianum* grows 6000 feet above the level of the sea, where the ground is covered in winter with from 15 feet to 20 feet of snow; whereas *L. Washingtonianum purpureum* is found in Humboldt county, in a climate of perpetual spring. The flowers are fragrant, and from twelve to sixteen are produced on a stem."—(*Florist and Pomologist*, 3 s., vii., 256.)

LITTLE TROT SILVER-EDGED BEDDING GERANIUM.

THE season of summer-flowering and fine-foliaged bedding plants being over for the year, let us take a retrospect and compare those which have tended to embellish our flower beds with others that were similarly used a dozen or twenty years ago, and we shall find that a great change has taken place. Into the causes of this change as well as its effects it is not my present purpose to enter, my object being to call attention to one class of plants that came into use as soon as the mass-bedding system in its present form started into existence; and here I may observe that it is perhaps more popular now than it ever has been, and taking it in all its bearings it is not likely to go out of fashion. The plant to which I especially refer is the Geranium or Pelargonium, on which latter name some fastidiously insist, but by the plain practical man the term bedding Geranium is sufficiently well understood. We need not go far back into the history of the bedding Geranium to find out what great improvements have been effected in its varieties, and yet new ones keep flowing in, and some of these, it must be acknowledged, present but little if any improvement on older ones. Occasionally, however, old varieties that have been discarded have been restored to favour, and enjoyed a higher reputation than before. Nevertheless, it must be admitted that great improvement has been made, and the choicest kinds that could have been brought

together twenty years ago could not compete with those we now have. This remark may appear superfluous, but if we turn to the *Dahlia* I imagine the best stands exhibited twenty years ago would quite equal those of the present time.

New kinds and new features in the *Geranium* have been strongly advocated, and to some extent secured, whilst in some other cases there has been a decline, as with those belonging to the class of which Mrs. Pollock may be regarded as the type, which are less patronised than before, owing to some of the best-marked sorts being only shy growers. A more robust class, the Gold and Bronze, have been more extensively grown. There is, however, one more class to which I intend more especially to call attention, and that is the Silver-edged section as it is called. From the first I have always regarded the White or Silver-edged class as more important in the general parterre than the Golden one; for in the distance, when surrounded by greenery, it looks better, and especially as compared to the many-coloured varieties, of which Lady Cullum, Lucy Grieve, and others were at one time the cream. This remark, of course, is meant to apply where plants have to be looked at from a distance, or where in conjunction with green foliage of other kinds.

But it is not necessary here to urge the claims of one class against another, rather let us see what has been done in the Silver-edged section; and here it must be confessed the improvement for a great many years has been very small indeed, for it is not unusual now to meet with one of the very oldest class, Flower of the Day, which has borne the test of fully a quarter of a century, and is still admired by many. Others, however, insist on one having a clearer white margin—that of Flower of the Day being a soft creamy white; while some also want bright scarlet flowers, and these, too, of fair size. All requirements have not been supplied by any great number of varieties, and it is not unusual to see in a garden, which boasts of its hundreds of flowering *Geraniums*, only one Silver-edged variety, and this often so much neglected as not to be dignified with any other name than the Silver-edged one. Fortunately, however, for the guidance of those who have not the means of growing many kinds, and also to afford the public the benefit of the judgment on the merits of new kinds of those best qualified to give it, the Royal Horticultural Society has for some years been in the habit of planting-out in their own garden all the varieties sent to them for trial, and these being all grown under the same conditions, and their merits or failings duly chronicled, the report on them is of great value to those who grow the *Geranium*. The commendations are by no means scattered broadcast, but sometimes a certificate of merit is awarded to a choice variety in its section, as was the case the present season to one that I have had the opportunity of seeing in a growing condition for two or three years. It is of the Silver-edged section, and was, I believe, named Little Trot by Mr. Davis, its successful raiser. Mr. Davis has the management of the grounds of the Maidstone Cemetery, which he has embellished in a manner that far excels anything of the kind I have ever met with elsewhere, and he has for years been in the habit of raising hundreds of seedling *Geraniums*, and amongst them was Little Trot. This, from its compact habit, its neat foliage of a uniform size, and rather less than in the generality of such kinds, added to the clearness of the white of its margin, was admired by all who saw it, and Mr. Davis was advised to subject it to the test of the Horticultural Society, and it has been awarded a certificate of merit. I have no doubt it will become a favourite with all by whom it may be grown, as it seems well adapted to fill those spaces in panel beds that require a Silver-edged *Geranium* of neat but not stunted growth. It is a well-branched kind; the branches are of horizontal rather than upright growth, and the foliage nicely spread over the whole rather than collected in a tuft, as was the case with a dwarf kind fashionable some years ago, and which, by-the-by, looked badly when wet weather set in, as much of the foliage decayed; but Little Trot rain seems only to make brighter, and to show it to better advantage. It is certainly an advance on all the dwarf Silver-edged *Geraniums* I have hitherto met with, and for lines of edging, panel work, or any other purpose where a medium dwarf growth is required it will be found to be just what was wanted.

By those to whom the difficulties of raising seedling *Geraniums* seem beyond their means, the way that Mr. Davis accomplishes the object is well worth copying, for with the aid of very little glass he sows the seeds in a slightly-prepared hot-bed in March. He thinks it is not so well to sow sooner, and

when the plants will bear handling he pricks them out into a nursery bed sheltered and sunny, and the largest of them are afterwards transplanted upon rather poor ground, when many of them will be found to flower in September. Those which do not and show no signs of bloom have their heads taken off as a cutting, and the old plant left to perish (if it be not an ornamental-foliaged one), and the cutting with other strong ones is retained for another year. Mr. Davis gets many to flower the first year, and by his superior way of managing them asserts that there is no more difficulty in raising seedling *Geraniums* than there is in Lettuce, and most of his flowering plants are of his own raising, and possibly his stock may turn out another Little Trot in some other form, for he has plenty of good seedlings.—J. ROBSON.

NOTES AND GLEANINGS.

IN the notice of the LINDLEY MEDAL which we gave last week, a printer's error occurred, by saying that the portrait of Dr. Lindley was "enamelled" with a Laurel wreath instead of "encircled" with a Laurel wreath.

— We regret to hear that Mr. JAMES SMITH, late of Exton Park, Rutlandshire, is leaving the management of the gardens of Lord Dartmouth at Patshull, Wolverhampton. Mr. Smith had only recently entered on the situation, but he finds it not in accordance with his expectations, and hence he has sent in his resignation. Any nobleman or gentleman wishing the services of a highly experienced gardener of the greatest integrity will find in Mr. Smith such an one as they desire.

— A REMARKABLY rapid-growing tree is a variety of the Cottonwood (*Populus canadensis*), and in Messrs. Waterer's nurseries at Knap Hill it has grown 20 feet in three years.

KNEBWORTH PARK,

THE SEAT OF LORD LYTTON.

To every student of English literature the name of the late Lord Lytton is familiar. Few there are who have not read the charming productions of his pen; and though he has passed away, he has made for himself an enduring name apart from all inherited or bestowed. But though his works have been read by myriads, yet, except by those who live in the immediate neighbourhood of his ancestral home, those who have seen his residence and its gardens may be counted only by hundreds. He was a man of taste, and hence it might be expected he would by no means neglect his garden; and though in size and appliances it has no pretension to rival our great establishments, it is, nevertheless, one of the prettiest gardens we know.

Knebworth Park is three miles from Stevenage station on the Great Northern Railway, and covers about three hundred acres of nearly the highest ground in the county of Herts. In Anglo-Saxon times the manor was part of the vast domains of Eudo Dapifer, but in the time of Henry II. it was in the tenure of one of the De Ous, who probably was an ancestor of Robert de Hoo, who was Lord of the Manor in Edward I.'s time. By marriage it passed into the possession of various families until Sir Thomas Bouchier, in the seventh year of Henry VII., sold it to Sir Robert Lytton, and it has continued in the possession of his descendants. The ancient manor house was pulled down in 1811, and the present mansion erected on nearly the same site. Of the west or garden front of this, the accompanying engraving (*fig. 128*), from a photograph by Mr. A. Elsdon, of North Crescent, Hertford, is an accurate representation, and owing to the elevation of the site the tower, which forms a prominent feature in the architectural design, commands the view of a wide range of the surrounding country. Extended before it is a flower garden on grass, the beds framed in gravel, plentifully embellished with vases and statuary, and covering altogether about four acres. The design is somewhat complicated, and from its character difficult to plant so as to combine harmony of colour with variety, while the number of plants required, some 36,000, is large for the means of producing them. The effect, however, as will be seen from *fig. 129*, also from a photograph taken by Mr. Elsdon, is excellent; and though at the time of our visit the glory of the flower beds had departed, enough of their beauty was left to show what it had been when they were in their pride. The lawn surrounding the beds is beautifully kept, and extends on both sides of the broad central walk to the high Laurel hedges which form the boundary of this garden.

It is dotted with some fine Araucarias, Wellingtonias, Cryptomerias, and other Conifers. Some of the Araucarias after the dry summer of 1866 appeared to be dying, but Mr. Kipling, the gardener, gave them a good mulching of loam, leaf soil, and a little well-decayed manure, and they improved wonderfully. The Ivy-covered summer-house on the mound on the south-west side, and which forms a conspicuous object in *fig. 129*, commands a good view of the flower garden and mansion, and, in a clear day, of the surrounding country.

At Knebworth we have not one but many gardens to deal with; some of them are very charming, though none very large. Thus we have the bowling-green, another Laurel enclosure of smooth lawn, such as that half-forgotten game requires, and in a sheltered secluded spot a hardy fernery. From this, looking through an oval opening in a trellis-

work, a view is gained of a Heath garden, most noticeable in which are clumps of the Mediterranean Heath; and passing from this into the adjoining garden, in which is a small temple, we again find lawn surrounded by evergreens and studded with shrubs, and notably the Golden Arbor-Vitæ, of which there are several handsome specimens. Here we gain—chiefly through peepholes, which to our taste are somewhat too artificial, and certainly so in their present state—views of the park with its scattered Oaks, its clumps of Elms, its old Horse Chestnut and young Lime tree avenues, and its woodland masses of Oaks stretching far into the distance. Next comes an old-fashioned Box garden with polychrome walks, which is a deal of trouble, and—but tastes differ—of no great effect. It is quaint but not old enough to strike one as a relic of the olden times, and owing to the failure of the coloured

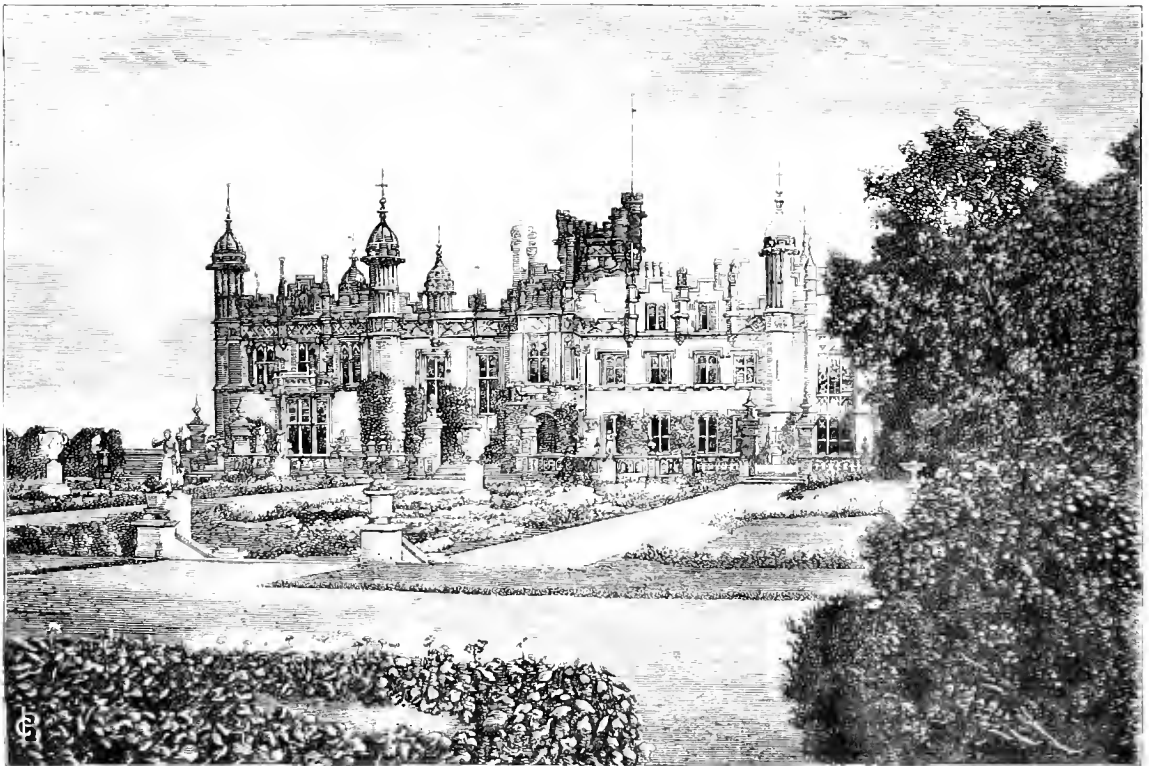


Fig. 128.—KNEBWORTH.

materials which are employed, as in the case of spar and broken bricks, &c., wherever used in superseding Nature's inimitable tints, it may be questioned whether these would not be much more advantageously and pleasurably substituted, especially in a case where no great antiquity can be claimed. Through the Laurel-surrounding of this garden in an eastward direction is seen the tower of the mansion at the end of a long vista. In an adjoining garden are a number of fine common Laurels of large size clipped into a circular haystack shape, with handsome low standards of the Portugal by the side of the walk. Ivy baskets and marble busts are also freely introduced, the latter among Yews. Into an adjoining maze we did not enter.

On the south-west side of the mansion, and entirely shut out from every other part, is what is called Horace's Garden, intended to represent that of a small Roman villa. It is plentifully adorned with busts, as of Augustus Cæsar, Horace, Virgil, and other classical celebrities; but the Italian Vines have had to be substituted by Hops on the rustic poles on one side of the very poor piece of water running through it. The whole of this somewhat limited area is surrounded by Spruce, Scotch Firs, and Oaks; and as an ideal of what has long since ceased to be, notwithstanding some vegetable anachronisms, is a pleasing-enough spot, and would be all the more so were the water to rival in purity that of the fountain which Horace so lauded.

An old flower garden has been turned into a rosery, in which it is contemplated to carry pillar Roses on arches over the surrounding walks. A good deal, however, will have to be done by the gardener, for near here the chalk crops out to the surface, and Rhododendrons and other chalk-abhorring subjects cannot long survive unless provided with peat. Portugal Laurels, of which there are some nice dwarf standards, seem to do well.

The kitchen garden is by no means neglected, but sadly needs remodelling. The glass houses are too few for a place of such size, and most of them must ere long be replaced; still in such as there are we noticed good Muscat and Hamburgh Grapes, and we believe Strawberries are forced in considerable numbers. Considerable extension of the glass and a rearrangement of the two kitchen gardens would add much to the resources of the place, but to keep twelve or thirteen acres of flower garden and pleasure grounds, and two acres of kitchen garden, in the order in which Mr. Kipling does, with the means at his command, must be no easy task.

NOTES ON VILLA AND SUBURBAN GARDENING.

FLOWER GARDEN.

THE recent frosts have rendered it quite necessary to clear the beds of their summer occupants; and, in fact, the whole garden must be at once gone over. In the first place, if previous

a lvice has been acted upon, all plants which will be wanted again have been put under protection. The last to be secured are the Dahlias, Marvel of Peru, and Echeveria secunda glauca, a plant perhaps more generally used for edgings for flower gardens than any other; but it is not quite hardy, and should therefore be put in a place of safety at once. This need not be under glass, but simply under a wall or in any other sheltered spot. Last winter, which was a very mild one, many of my plants had no protection; but the season before that, and also at the present time, I dug out a trench 4 feet wide and 1 foot in depth, and laid 3 or 4 inches of sandy soil at the bottom. The plants were taken from the garden, put in thickly, and covered with hoops and mats at night; and if the weather proved severe the usual protection of rough fern was thrown on. Unless it froze the whole day they were always uncovered, if only for an hour or two. Dahlias and other similar-rooted things of the same degree

of tenderness were taken up and placed in a cool dry shed, with their roots covered in dry earth.

Take up bulbs of *Gladiolus* if not already done. The commonest sorts, such as *Brenchleyensis*, may have their bulbs packed in sand or dry earth; and other sorts, such as the choice named ones, should be wrapped in paper with the names attached, and placed in the storeroom. Clear every bed and border; dress the surface of the ground, and mark out all vacant places, so that other subjects may be planted for spring-blooming without delay.

Carnations in frames must be made secure from frost, and in mild weather, or even when the thermometer is a few degrees above the freezing point, give air freely; and when watering the plants do it carefully, so as not to wet the foliage. Take care also that the roots do not run through the bottom of the pot and take hold of the soil.

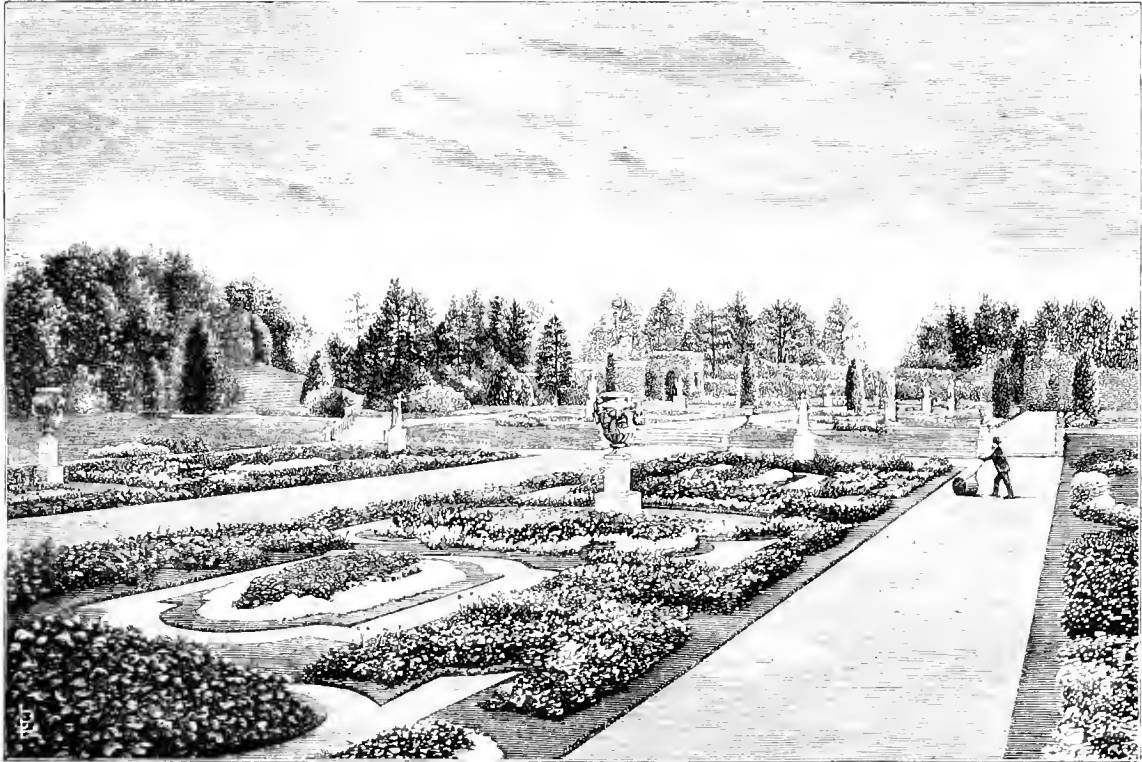


Fig. 129.—THE FLOWER GARDEN AT KNEEWORTH.

Cinerarias that are to bloom in small pots should have the side shoots picked off. If one flower stem only is left, and that the centre or largest one, it will produce a very fine head of bloom, and be more satisfactory than if there were more of them.

GREENHOUSE AND CONSERVATORY.

Fuchsias done blooming should have their most straggling shoots shortened, and be gradually dried-off. Achimenes of sorts should also be stowed away, but neither these nor Fuchsias will need any water for three weeks, and if on a damp bottom not for six weeks, or even longer. *Solanum Capsicastrum* will now be very pretty with its scarlet berries, and should be set in the most conspicuous places. *Chrysanthemum*, too, must not have any water dashed over their flowers, for this will cause them to rot. *Primulas*, the forwardest of which will now be coming into flower, must stand where they can dry themselves freely after being watered: it is the stagnation of water about their necks which causes so many of them to damp-off. *Adiantum* and *Lycopoda*, as well as many other of the tenderest greenhouse plants, must be placed in the warmest end of the house; and slugs, which are exceedingly fond of the young fronds, must be regularly looked after. They will be best found at night, as they will then be at their work of destruction. Heaths of the *hyemalis* type, as well as *autumnalis* and others, will now be coming into bloom, and must be placed where there is a free circulation of air; a want of this provision often brings mildew, which is so destructive to this class of plants and so very difficult to get rid of. *Pelargoniums* will also need careful tending to guard against damp. There is a disease which appears on

the leaf called the *spot*; to prevent this they must have a dry foliage when the sun shines on them. These and the *Cinerarias* will need frequently fumigating with tobacco paper, but always when the foliage is dry—a rule which should be observed on all plants that have to undergo this process. *Lachenalias* of sorts which are started well into growth should be brought near the glass; and the same may be said of *Cyclamens*, which are now advancing, and must have air freely, but at no time a close damp atmosphere.

Gesnera zebrina and others are all handsome-foliaged plants. If they do not flower in a cool greenhouse their foliage makes them attractive objects on the dinner table as well as for general decoration; but in a warm house, not a stove heat, they may be expected to flower fairly.

Some of the early *Hyacinths* potted some time ago will no doubt be making a growth, if allowed to remain under the covering much longer they will become injured; so with early *Tulips*: therefore take all such out, place them either in a frame or under a stage out of the full light for the present, and cover them over in the daytime with pots of the same size, taking these off at night. After a few days, when it is seen that the growth is gradually becoming green, the pots may be left off altogether.

The variegated section of *Pelargoniums*, which includes gold and silver-variegated, the bronze section, the gold-leaved, as well as the ordinary variegated sorts—if any of these are in frames they should be moved to drier quarters, if possible in the greenhouse, so that their foliage may keep good, which it seldom does throughout the winter in damp cold frames. These, with

the old plants of Mrs. Pollock, may be preserved two, three, or even four in a pot of dry earth when only required for bedding; but if needed for specimens for pot-culture they must have a little more than the ordinary care bestowed upon them.—THOMAS RECORD.

DOINGS OF THE LAST AND PRESENT WEEKS.

KITCHEN GARDEN.

THE weather up to the middle of last week had been very mild, which caused the fruit-buds on all trees to grow or plump-up rather more than usual; indeed, in mild weather all through the winter months, Apple, Pear, Cherry, Plum, and other fruit trees are making progressive movement. On Wednesday, the 11th, the thermometer registered 5° of frost, and on the evening of Wednesday a stiff north-easter sprung up, with a few degrees of frost and a dry bracing atmosphere, which continues as we write. Of course as the alleys were quite hard, wheeling manure and trenching were the order of the day. We had been cutting the lawn early in the week, and up to that time had been regularly cutting it. Some portions of our kitchen garden had been made up at different times, and has therefore sunk in places. An opportunity has been taken to fill these up with soil excavated to enlarge a Vine border.

Celery in our light soil is extremely liable to decay at the heart; but it would almost seem to be the atmospheric conditions which have most to do with it. As earthing-up with some other material does not make very much difference to us, cocoa-turf fibre refuse was tried fresh from the works, and in this clean material, which had been found to answer in other places, the result was even more unsatisfactory. A plan has been tried by which a cord has been fixed above the row, raised, say, a foot above the top of the ridge, some good wheat straw is placed over it and bent at the middle, so that a light thatch is made; elevated as it is above the ground by the cord, very little rain can get to the centre of the plants.

We will, if possible, have the *Raspberry* plants pruned, and the ground between the rows dug with a steel fork this month. The plants are trained in two ways, but preference must be given to that by which the canes can be tied to a wire fixed in a horizontal position about 3 feet above the surface of the ground. When this method of training is adopted the plants are in rows 18 inches apart, or for the strongest-growing sorts 2 feet are allowed; the canes are then tied to the wire, allowing about 6 inches between each cane. The rows must be not less than 4 feet apart to allow of the fruit being gathered readily, and no advantage would be gained if the rows were closer, as sun and air would not be freely admitted to them. Fresh plantations may be made now.

If *Carrots*, *Beet*, *Parsnips*, *Salsafy*, *Scorzonera*, and other roots have not been stored, no time should be lost now if frost will permit of its being done. Many persons have had their roots stored weeks ago, but nothing is gained by storing them very early, as the quality does not improve after the roots are taken out of the ground; indeed, in the case of *Parsnips* we would not take them out of the ground at all, but when hard frosts set in it is troublesome to get at them, and altogether it is most convenient when all are packed together in sand in a cool shed. The person who has to cater for the kitchen supply of vegetables will always approve of this arrangement.

VINERIES.

It was stated in a contemporary two years or more ago of some Grapes which were cut with the branch, the end of this inserted in a bottle of water in the usual way, and the whole placed in a fruit-room in the manner so frequently practised within the last few years, that during a severe frost the Grapes were frozen, and even the water in the bottles had ice upon it, and yet the fruit kept good for some time after—in fact, all the better, it was said, for the freezing. Now that is contrary to all the experience we have had with Grapes in the vineries. If the thermometer falls to the freezing-point the fruit decays more rapidly afterwards. It is therefore our endeavour to keep the temperature up to 40° at night at present, removing all decaying leaves and mouldy berries; the moisture evaporating from leaves in the process of decay tends more to spoil the appearance of the bunches than the atmospheric conditions existing outside, bad as these are in the neighbourhood of London, Manchester, and other large cities. With care fogs may be guarded against, but a little forethought is necessary. It is no use getting-up a brisk fire in the morning and opening the ventilators when King Fog holds sway. If any ventilators are open the damp air will get in, and will continue to pour in while the fog lasts. The best way is to keep doors, windows, and ventilators closed, and only sufficient heat in the hot-water pipes to maintain a proper temperature in the house.

We have not yet started the early vinery, but those who have must not maintain a high temperature at night; they should shut-up early in the afternoon, and allow the pipes to become just milk warm, unless it is a sharp frost, when the heating apparatus must be warmed more, but not so as to have the house up to a certain temperature at all hazards.

In previous numbers we have recommended the use of some fermenting material in vineries. In country gardens at this season fallen leaves can be obtained in quantity, and if a good bed of them can be made-up in the house they throw off a sweet heat and sufficient moisture. Our own system is to save the droppings from the stables, wheel-in a barrowload every alternate morning, and this fresh material is mixed with that which has become sweet by frequent turning, so that little danger arises from an excess of rank steam. When preparing the Vines for forcing at this early season the rods should be bent down, so that the ends of the canes may be brought near the front sashes. Unless this is done the buds nearest the top would start first, and those at or near the base would start weakly.

FLOWER GARDEN AND SHRUBBERY.

We have run the mower over the lawn, we trust for the last time this season. All the edgings were neatly clipped. The beds intended to be planted with spring flowers should be filled with them as soon as possible if it is not already done, and beds not planted ought to be dug up, forked over, or neatly raked. Shrubberies may have the open spaces planted with bulbs or flowering plants. Some of the different species of *Lilies* are well adapted for this purpose, and nothing thrives better than the different species of *Convallaria*. *C. Polygonatum*, or, as it is popularly called, Solomon's Seal, grows more freely in certain positions amongst shrubs than it does when more freely exposed. How sweet also is the *Lily of the Valley* for such purposes! *Phloxes* do well if not shaded too much, but the ground for such gross feeders must be rich, and the plants should be renewed every second year. Another plant that is not seen so often in prominent positions in such places is the *Tree Paeony* (*Paeonia arborea*). There are now scores if not hundreds of distinct varieties, and the different shades of colour in the noble flowers, from delicate rose to deep red, are set off to great advantage by the deep green of the background. A few of the best sorts should be cultivated in all gardens.—J. DOUGLAS.

PROVINCIAL HORTICULTURAL EXHIBITIONS.

[SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held. Although we cannot report them fully, we shall readily note anything especially excellent, and we wish for information on such specialities to be sent to us.]

	NOVEMBER.	DECEMBER.
Cheltenham (Chrysanth.)	23 and 24	Birmingham (Chrysanthemum)
Royal Hort. Society of Ireland	26	1 and 2
	DECEMBER.	York
Manchester	1 and 2	1, 2, and 3

TO CORRESPONDENTS.

* * All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

SUPPLEMENT (*A Young Subscriber*).—You did not count the number of pages in each—there are four supplemental.

RASPBERRY PLANTING (*F. E. R.*).—You may plant now and until early in February. The following are superior:—Carter's Prolific, red; Fastolf, purplish red; October Red, Sweet Yellow Antwerp, and October Yellow.

GUERNSEY LILIES (*G. D.*).—The bulbs can be purchased of any of the florists who advertise in our columns.

GRAPES SCALDING (*B. G.*).—We think what you so name must be the "spot." If so, watering the roots with tepid very weak liquid manure during the growing season would probably remove the evil. If you sent us two or three berries in a box we could be sure of the disease required to be avoided.

SPIT MANURE (*Dan*).—Any thoroughly-decomposed manure that can be dug with the spade is so designated.

POTATOES.—"I have grown Sutton's Hundredfold Fluke this season, and for table use find them white, mealy, and of good flavour. The circumstances under which "D. W. W." has grown or cooked them may have had a great deal to do with the waxy condition.—J. KNOWLES, *Blackburn*."

"I am of the same opinion as your correspondent, "D. W. W.," respecting the Hundredfold Fluke. Mine are waxy and rather strong to the taste, though my soil is excellent for Potato-growing. It is a good cropper, also of a good shape. I intend giving it another trial next year, and am inclined to think they will be better if kept a while longer.—M. B."

REPLACING VINES—BORDER FOR VINES (*B. E.*).—The Lady Downe's which you wish to remove and replace with Black Hamburgs would be best cleared away, the soil renewed, and young canes planted between the present time and your commencing to start the Vines. We should do this as soon as possible. The Vines will not do any good with their roots under the paved floor, and as you cannot have a border outside without grassing it we should prefer the latter. The border should be 3 feet deep, well drained, and consist

of turfy loam, about a sixth part of old mortar rubbish, and a tenth of half-inch bones, well incorporated. It would be well if you could raise the border and form it into a terrace, especially if the soil is wet. Plant early in March, but we should form the border at once. If the loam is poor it may have a fourth of well-rotted manure added to it.

WINTERING PLANTS IN A FRAME BLUE-HEATED (G. P.).—It will not answer to fill-in against the sides of the frame, as that would deprive you of the heat from the sides, but they should be kept clear, and you may have a wooden stage for the plants, a lattice stage being best. Flags or slates answer well, but sheet iron, unless galvanised, is soon corroded, and is, besides, costly and unsuitable. The supports for the stage ought not to rest on the due, but be clear of it to prevent fire in case of overheating.

PAMPAS GRASS—ALPINES FOR ROCKERY (Agapanthus).—Pampas Grass would not succeed in a border shaded by trees and exhausted of its moisture by their roots; but if the trees do not injuriously affect the border in the above way you may plant with a fair chance of success; they are best planted in spring before growth commences. As Ferns and Ivy grow well, it is evident they, and not subjects which require sun, are most suitable. A few Alpines for the rockery are *Alyssum saxatile* compactum, *Antyllis emacina* (pale blue), *Arabis alba*, *Anubria Campbelli* (blue), *A. deltoidea grandiflora* (blue), *Campanula garzatica* (bluish purple), *Cheiranthus longifolius*, *Cistus argenteus*, *Cyclamen coum*, *Dianthus neglectus*, *Draba aizoides*, *Erysimum pumilum*, *Globularia nana* (pale purple), *Phlox Nelsoni*, *Santolina alpina*, *Saxifraga affinis*, *S. ceratophylla*, *S. granulata*, *S. longiflora vera*, *S. palmata*, *Sedums acre*, *cyaneum* (purplish blue), *Strepurpurnum*, *glaucom*, *pallidum roseum*; *Sempervivum arachnoideum*, *S. californicum*, *Silene pumilio*, *Statice alpina*, and *Veronica prostrata* (blue).

POTATOES AND RADISHES IN A PIT (P. S.).—You do not say whether you propose to cover the pit with lights, but if not you will need a sort of framework to support the protecting material. We presume you have some kind of fermenting matter to afford a gentle warmth, and we should place it in the pit at front to the depth of a foot, and at back 24 inches deep, which will leave you a foot to the glass. Leaves will answer, and with 6 inches of soil upon them will be so firm as to leave you a foot clear in a short time. The soil should be rich loam, light rather than heavy, and when it is a little warmed you may plant the Potatoes in rows 15 inches apart, and the sets a foot apart in the rows, placing them 4 inches deep. Radishes may be sown over the surface, and the seed be either raked in or covered with half an inch of soil. All the treatment required is to expose fully when the weather is mild, and protect from frost by mats and straw coverings in severe weather, not removing them in continued severe weather until a general thaw. If you can command an abundance of protecting material commence at once, but if not we should defer planting until early in February, in the meantime having the sets in a suitable place to sprout. When they have pushed shoots from one-half to three-quarters of an inch long you may plant. We grow in frames Sandringham Ashleaf, Myatt's Prolific Ashleaf, and Veitch's Ashleaf. The first is earliest, but the last two are better croppers, and for your purpose would be most suitable. We have no book treating of Potatoes.

PEARS FOR WALL—SELECT AZALEAS (J. W. L.).—Pears: *Beurré Superfin*, *Conseiller de la Cour*, *Marie Louise*, *Beurré Diel*, *General Todtleben*, and *Gloir Morceau*. Azaleas: *Criterion*, salmon pink with white edge, spotted lake; *Duchesse Adelaide de Nassau*, rosy scarlet, tinged violet; *Mars*, orange scarlet; *Kinghorn*, rosy lilac; *Mdlle. Marie Lefebvre*, white, semi-double; and *Mrs. Turner*, pink, margined white, upper petals spotted purplish crimson. *Camellias*: *Bonomiana*, white, flaked carmine; *Mathotiana*, crimson; *Valtevedro*, rose; *Mrs. Cope*, white, striped crimson; *Fimbriata*, white; *Storvi*, rosy pink.

BURN KNOT APPLE.—"E. P." would be obliged by being informed where this Apple tree can be purchased.

GOOSEBERRIES FOR GREEN JELLY (Amateur).—Grow the following varieties as you wish them to be late:—General, Shiner, Telegraph, and Thumper.

GRAPES NOT KEEPING (A. B. C.).—Grapes are not keeping well this season, and it is likely your house is too moist, and the size of the berries and want of colour show they have not ripened perfectly, which is against their keeping. The want of colour is probably due to too heavy cropping. The remedial measures to be taken will be to keep the atmosphere drier, to apply fire heat only by day after the Grapes are ripe, with abundance of air, and leaving a little air out at night, but no fire; having the border covered with shutters to throw off the rains, and so keeping the roots from throwing too much moisture into the berries; whilst a less crop, with more air, and probably a lower temperature when ripening, would give you a remedy for the want of colour.

VERONICA AND SOLANUM LEAVES BLACKENED (S. E.).—The leaves are covered with a black fungus, a consequence of honeydew being deposited upon their surfaces by the insects the plants have been or are infested with, and which we think in the case of the Veronica are brown scale. In that of the Solanum the evil may arise from aphides infesting the points of the shoots. The aphides may be destroyed by fumigation with tobacco; and the brown scale may be destroyed by a solution of soft soap, half a pound to two quarts of water, to which add about a wineglassful of spirits of turpentine, and apply with a brush at a temperature of 120°. The scale will be removed at once, and the plant in about three hours afterwards should be laid on its side and thoroughly syringed. The solution should be kept from the roots. It will destroy every species of scale. The white scale on Acanthias it browns and removes.

LILIUM AURATUM SEED SOWING (Rush).—The seed should be sown at once in pots or pans filled to within half an inch of the rim with a compost of equal parts sandy peat, leaf soil, and fibrous loam, well drained. Level the surface and scatter the seeds evenly, and cover about a quarter of an inch deep with fine soil. Water gently, and place on a shelf or in a light airy position in the greenhouse, and keep moist, but avoid making the soil sodden. In due course the plants will, if the seed be good, appear, and then water as required to keep moist and promote a free growth. By next autumn the seedlings may be shifted into other pots or pans, placing them with every root carefully about 2 inches apart, and about an inch below the rim, so as to allow for a light top-dressing of soil in spring; and, being duly attended to with water, they will by the following autumn be fit to pot-off singly in 7-inch pots, and after another season's growth they will be of a flowering size. The soil only needs to be kept moist in winter.

SHUTTERS FOR SHELTER ON SEA COAST (Della Rocca).—We should not confine ourselves to evergreen shrubs or trees, but have deciduous as well. At the most distant point of view we would have a line at least of Sycamore at 15 feet apart, with Mountain Ash midway of the distance, and between

these a yale and the Sycamore, at 4 feet distance of course, the scarlet-berried Elder (*Sambucus racemosa*), and in front of these inwards a row of Gaudier Rose at 4 feet apart. We should then commence with evergreens, and have Austrian and Corsican Pine at 8 feet apart, and fill-up to 4 feet apart with Tamariusk. These will give you a good background, and you will need to arrange for the front next the house, forming curved lines, and so as to have groups or clumps, or what will appear as such, with a few specimen and taller subjects dotted here and there. The Chinese Juniper, *Pinus insignis*, Evergreen Oak, and Broad-leaved Holly are desirable for specimens. *Alaternus*, *Arbutus*, *Laurustinus*, and the different kinds of *Hollies* do well; also *Broom*, *Cotoneaster*, especially *Simmonsii*, *Double Gorse*, *Escallonia macrantha*, *Garrya elliptica*, *Evergreen Privet*, *Eugonymus*, and *Sweet Bay*. These, or some of them, judiciously arranged will give you all you require; but we cannot instruct you as to their arrangement for effect, as this would require to be done by someone on the spot.

WATERING PLANTS IN WINTER (J. W. L.).—It is not necessary to water plants in winter so much as in summer. Some of them will be at rest, as *Fuchsias*, and only require water to keep the wood from shrivelling, and the same remarks apply to all deciduous subjects. Evergreens, as *Camellias* and *Azaleas*, with *Acacias*, will require to have the soil always moist, watering only when they need it, which at this season may be twice a week, or oftener, as the weather and fullness of the pots with roots may determine; whilst subjects which are growing freely, as *Cinerarias*, *Cyclamens*, and bulbs will need to be kept well watered. Before the foliage falls, a thorough watering should be given, sufficient to show itself at the drainage. This is the whole and sole art of watering for evergreen and deciduous plants in a growing state. In watering we must be guided by circumstances. Syringing is not necessary for greenhouse plants in winter. You will find the treatment of most greenhouse plants in our new edition of the "Greenhouse Manual," which may be had by post from our office for 19d.

ARRANGEMENT OF FLOWER BEDS (A Very Old Dublin Subscriber).—Convert the parallelogram into an oval for the Roses, surround it with a band of beds composed of four curved oblongs, alternating with four circles, keeping a strip of turf 5 or 6 feet wide between the oval and the enclosing beds, which should be about 5 feet wide. Flowers may be planted among the Roses without hurting them provided the soil has an annual dressing of manure.

INSECT IN APPLE TREE (W. L.).—The caterpillar which has completely eaten through the whole length of the stem of your Sturmer Pippin tree is that of the well-known and very destructive Wood Leopard moth, of which a description and figure, with an account of its habits, were published in No. 485 of this Journal.—I. O. W.

NAMING PLANTS FROM SPRAYS (A Constant Reader).—We do not recognise the spray of the shrub, but it resembles an *Alaternus*. For identification, flowers as well as leaves are necessary.

NAMES OF PLANTS (E. Cornelius).—1, *Eryngium virginicum*; 2, *Muhlenbeckia complexa*. (D. Thomson).—Owing to the very imperfect material we can only name your Conifers approximately. 1, *Taxus Menziesii*, *Dougl.*; 3 and 5, two species of *Abies*; 4, *Biota (Thuja) orientalis*, *L.*; 6, *Libocedrus chilensis*, *Endl.*

POULTRY, BEE, AND PIGEON CHRONICLE.

TRIMMED HAMBURGHS AT THE OXFORD SHOW.

MR. HEWITT has received a letter from Mr. Long containing the following as an explanation: "The second bird examined was May's bird, the same man who originally bred and showed mine. I wished it to be seen to show that the original breeder was the clipper. He sold it to Hyde, and Hyde to Duckworth; Duckworth, not long before Oxford, writing me to sell it to him again. He knew of the clipping, or how did he manage to enlighten me?" Mr. Hewitt adds—"No one can possibly be more regretful than myself to say even a single word to wrong anyone, and Messrs. Duckworth I never saw nor corresponded with in my life; and I will add that, so far from being a rare matter, any general judge knows that prize pens of poultry are constantly being shown, first in one name, then in a week's time in quite a different name, and as rapidly get transferred back again to the original owner."

THE POULTRY-KEEPER.—No. 27.

THE PADUA BREED—DUTCH CRESTED VARIETY.

IN the most of these varieties the hen has much richer and more characteristic plumage than the cock, and as the principal interest attached to them is the pleasure they give by their appearance, I shall begin by describing the female first, as it is with her we find the most striking points. Though these varieties are almost entirely selected as being ornamental, they are not less good for the table. Their flesh is very fine, and they are generally excellent layers. The chickens are very precocious, but their tenderness renders them very difficult to rear. But after several generations in the same country they become more hardy.

PADUAS OR FOLANDS.

This variety is one of the strongest among the fancy varieties. The flesh is delicate, their laying very good, and they are non-sitters. It is remarkably well crested, which forms its principal ornament. Its plumage is one of the most rich as well as variegated, and wonderful in regularity. Three essential characteristics are—the crest, the plumage, and the complete absence of comb, the ear-lobes and cheeks being what amateurs call

"without flesh." The cheeks only appear a little with the cock. The crest, very largely developed in both sexes, is not always alike. With the cock it is composed of lance-shaped feathers like a parasol, and altogether much larger than the hen's, which is perfectly rounded and separates in two parts by a sort of cleft, which goes down the beak and disappears at the back of the head. The crest is very large, grown on a fleshy mass called "the mushroom," which covers the skull and is a little thrown back behind, so as to be off the eyes. This "mushroom" should be very much developed in well-bred birds. Each feather of the crest is in bands of colour; in the Silver



Fig. 130.—Crest Feather.

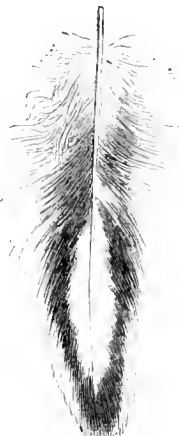


Fig. 131.—Hackle Feather.

variety surrounded with white, then marked with black, then white in the middle (fig. 130). After the second and third moulting a part of the crest feathers becomes white, which always increases as they get older. The feathers of the hackle (fig. 131), are like those of the crest, but less pointed.

CRYSTAL PALACE POULTRY AND PIGEON SHOW.

A FEW INTRODUCTORY WORDS.

THE extraordinary increase of the fancy for poultry and Pigeons may be seen in the fact of the notice and space now given in the London daily papers to the shows held in various parts of England. Until recently it was not so; there were the poultry papers, dear to every fancier, read and re-read by them, but they "were caviare to the general." Now, however, the daily paper which caters for the many is obliged, so to speak, to give space to poultry matters, because the many, not the few now, are interested in them. Then, too, this interest and love is no mere mania, for a mania dies away full speedily, it makes a rapid growth, and then its object is even despised; but this love of poultry has lasted for many years. All this the press knows well, and in giving striking details one diligent writer, who has a head for weights and measures, tells us that in regard to the Crystal Palace Show of this year, "If the pens were placed side by side they would reach a distance of three miles, and the weight of the cages alone is upwards of ten tons." This, I dare say, is all true. The Show is of vaster proportions than ever, but neither judges nor critics wish it to be larger; on the other hand, speaking for myself as an ardent fancier, I would say, May the quantity rather diminish than increase, but may the quality improve yearly. Last year the number of pens were 3605, this year they are 4100, in other words 800 more, and 800 would themselves form a show. To speak in praise of the Palace as a show-room would, indeed, be foolish—there is no show place equal to it, and there never can be a better. The noise of the crowing under that high roof is reduced to a minimum; and when the organ is rolling is, indeed, unheard. Everyone seems, as in former years, to be very courteous and attentive, from Mr. Wilson down to the humblest attendant. I wish the Pigeons could be fed in troughs rather than have the food scattered on the floor, and that the water vessels were outside the cages; then the birds could not either eat food soiled with manure, or defile the water and spoil their own plumage by attempts to wash, as I saw one of the Black Trumpeters doing in one of the four grand pens. Still this is but a small thing, and we must, in finding fault, however justly, remember the vast amount of labour entailed by this vast Show, and I can only be surprised at the few blots and the excellency of the general management. The well-arranged chrysanthemums in front of the theatre and under the dome gave brightness

to the scene. (Ah! what should we do without flowers? All honour to old Adam's trade), while the evergreens soothed the eye, and made glittering shops less glaring. In short, there is but one Crystal Palace, so also there is but one Show—that held within its glassy walls. So much for introduction—WILTSHIRE RECTOR.

TO-DAY is the last day of the grand poultry tournament of 1874. Twenty years ago anyone would have laughed at the bare idea of 4400 pens of prize poultry existing, but close on that number are on exhibition at the Crystal Palace to-day, and have been since Monday last—on exhibition at one Show, in one building, at one time! The very fact seems incredible, but a fact it remains. The question must arise to all, Is this the end, or is this the beginning? Has the poultry mania really reached its height? Will it keep as it is, or will it, having climbed the mountain, quietly come down the other side? We think not; nay, we may almost say we feel sure not. For though annually perhaps two or three of the good old stagers may retire, still the new comers are legion. We only have to glance at the prize list below to see this. New names are thickly strewn among the winners. New names abound in the catalogue. We like to see old friends win, but we also like to see the younger exhibitors doing the same; and to win at a show like this is winning something. Why, many value a high commendation at the Palace more than a first at a local show, though the result may not be so satisfactory in the pecuniary view. We think, considering the gigantic proportions of this monster Exhibition, that the judging has been very fairly satisfactory. Everyone cannot win. When there are a hundred pens in a class, and only six or eight prizes, some must be left out in the cold. We must remember that—

"Times go by turns, and chances change by course
From foul to fair, from better hap to worse."

The Crystal Palace Show is always a great place for sales, and one may come to the Palace and satisfy his requirements, be the breed what it may. And those who simply come (as by-the-by so many do) on purpose to buy some specimens of prize poultry to start for themselves, and hardly know what breed to go in for, why, they can take the showman's advice: "Pay your penny, ladies and gentlemen, and take your choice." We think we may almost call the Palace Meeting the poultry's "at home;" for certainly never anywhere else do we meet so many friends and fanciers, and we do not wonder that they come apart from the actual pleasure of meeting friends, and enjoying a good poultry chat, which pleasure we know to be very great. Still we say we do not wonder at their coming themselves, for how lonely they would be at home! The runs empty; the exhibition pens empty; no crowing at early morn; no favourites to watch; not even, perhaps, in many cases, a stray empty show basket to cheer up a lonely spirit. No, we do not wonder that all attend this Exhibition.

The management here is always good, and the Secretaries, whose names we all know so well, are always courteous and ready to do their best. Somehow at the Palace everything seems bathed in *couleur de rose*. The pens look all so clean and so well grouped, and the long avenues of birds so pleasing to the eye; but we must not forget that in these avenues there are close on 4400 pens of birds, and that though the poultry world has met to look at them, we have come to criticise.

DORKINGS.—In cocks there were fourteen entries. First, a very perfect dark-coloured bird with a splendid comb. Second, a huge rose-combed bird of great breadth and bone, his only weak point being his comb. The third-prize bird occupied the same place last year, but his comb has given way in the meantime. Mr. Parlett's was a large bird, with good feet but indifferent comb. No. 8 (Arkwright), light in colour and grizzly on the thighs.

Coloured Hens.—First was a very large dark bird, good in colour and feet, but with an indifferent comb; however, she was well first. Second, a thorough Dorking. Third, a very nice rose-combed hen. Pen 17 (Walker), large but crooked in leg. Pen 22 (Sapwell), a good hen if in better condition. Pen 36 (Col. Lane), very good, but unnoticed. Pen 37 (commended) was in dreadful condition, having lost all the feathers off her back. Pen 40 (Lingwood), would be very good except for corns on her toes.

The cup **Coloured cockerel** was very large in body and good in comb, but rather in-kneed and crooked in the big toes. The second-prize cockerel was the cup bird at the Birmingham summer Show; he is a very smart bird with a beautiful comb, but had caught a bad cold in his eye. The third cockerel was good if we except his comb. Fourth, large, but a little round in the back. Fifth, a nice dark, short-legged bird, but with very white ears. Pen 51 (Burnell) was a very broad bird with good comb and plenty of bone. Pen 72 (Raines) was, like the cup cockerel, rather inclined to be gouty. Pen 76 (Bartrum), very large, but with a very bad comb and pink legs, otherwise he is huge. Pen 79 (Wren), a good-bodied bird. Pen 83 (White), should have been in the prize list.

The cup **pullet** was broad and deep, with a good comb. The

second pullet will soon be bumble-footed. Third rather light in colour. Fourth was a mistake, as she had very sooty feet and yellow toe-nails. Fifth a bad colour, but large and good in feet. Pen 113 (Ruttlidge) was large and dark, and should have been in the prize list. Pen 117 (Batruan), good colour and comb, but sooty feet. Pen 121 (Pillington) fourth and fifth toes joined, otherwise a very good bird.

Silver-Grey cocks as usual did not muster very strong. The first cock was good in comb, colour, size, and feet, but he had one bad fault—his right spur was outside. The second cock was rather grizzly on the thighs.

Silver-Grey hens were a good class. The first large and perfect; she occupied the same place last year. The third hen was not very clear on the wing, but was good in size.

In *cockerels* Mr. Cresswell brought out an immense young bird, which easily took the cup. Two second prizes were given, and both to good birds. The third-prize cockerel was particularly good in comb, but was not equal to Mr. Cresswell's highly commended pen, the Oxford cup bird. Pen 147 (Pasley), small but perfect. Pen 155 looked old for a cockerel.

The first *Silver pullet* was well placed, large, silvery, and with a particularly good robin breast. The second-prize was a mistake, as her spur showed badly on the outside; however, she was bought at the auction by some lucky individual. The third was a much better bird.

In the *Cuckoo Dorkings* the awards did not generally please. Pen 186 (Young), were good. Pen 187 (Allen) should have been second. Pen 188 (Gamon), was the Oxford cup pen, but here unnoticed; they were thought by many to be the best pen in the class. Pen 190 (Howard), contained a very perfect cock, but not quite large enough; he had the best comb in the class. Pen 193 (Darby), were large and bright in colour. On the whole, this class was an improvement on last year.

White Dorkings still run too yellow in colour. The first were neat, but not large enough. Second, a very good pen in comb, shape, and colour. Third was a grand old cock. Pen 196 (Williams), should have been noticed. Pen 197 (Hayne), large but yellow. Pen 205 (Countess of Dartmouth), very cheap at 30s.

The five-guinea Selling class did not contain many bargains if we except the first-prize pen, which contained a good cock.

Cocorns.—The display of Cochins was something remarkable. Most certainly there has never been such a collection at the Palace before, and we really should almost think it was the best lot ever got together anywhere. Bufts, Blacks, Partridges, and Whites were all good. We cannot help saying we should have placed two or three of the prize cards on different pens, especially in the White and Partridge; but on the whole we thought the Cochins judging very good indeed.

Old Buff cocks came first. We suppose Mr. Burnell's old cock is the best old Cochins cock alive. We know he refused £60 for this bird on Tuesday. Certainly his colour is a little too deep to please us, but he is a wonder, and was well shown. The second was a fine old bird, but we thought him a little mottled. The third was also very good, but wanted leg-feather. 230 (Tindal), was a fine bird except in comb, but he has come out of his moult rather mealy on the wing. 232 (Taylor) was not particularly well shown, which put him out of it, or else he is a bird with much quality.

Buff hens were a nice lot. The first won in a canter, she is very large, and well fluffed; the second was of very admirable shape; the third an immense hen, but a little mottled, still she well deserved her place. Pen 240 (Bloodworth) had splendid feet. 241 (Tomlinson) was a pale hen, but she looked a good useful bird. 242 (Lingwood), was very large, but we did not care for her colour.

Buff cockerels mustered well—no less than thirty-five entries. The cup bird was very grand, his colour perfect, and his comb very good; he ran in first. This is the bird we mentioned some time ago as likely to be a "stickler" when he came out. We have heard of him for a long time, and were not disappointed when we saw him on Monday last with the cup card on his pen. The second was a well-grown bird, but he was a little too dark, and he has a great deal of black in his foot-feathering. Third had not a good comb, or he would be a good chicken. The fourth we admired very much, and expected to have seen him higher. 255 (Burnell) was a good colour, but rather small. 261 (Cartmel) rather mealy on wing, but a good chicken. 279 (Crabtree) had a bad comb rather, or else his colour was very good.

Buff pullets were a glorious class. The first was the lovely bird we noticed at Oxford. She was looking well, and we may safely say we call her the most exquisite Buff pullet we ever saw. Her colour, shape, and symmetry make her a perfect picture. The second was a good bird too, of nice colour, and with most beautiful legs; third also very good and well shown. Fourth was a splendid pullet in shape, but we thought her colour a shade streaky. 288 (Harrison) a good bird. 289 (Christy) of splendid shape, but a trifle too variegated in colour. 314 (Lady Gwydyr) was of lovely colour, but hardly large enough. 322 (Crabtree) of splendid shape, and with very good leg-feather. We should have liked to have seen this pullet in the list.

For old *Partridge cocks* the first won easily, but he is not so good as the cup bird of Mr. Shrimpton's of last year. The second was rather small and a little out of form. The third was narrow, or else he was of good colour. 323 (Taylor) was rather brown in fluff. 330 (Crabtree) was a very large and good bird, but rather mixed in colour.

The *Partridge hens* were very good, and we thought them admirably judged. The first was a grand bird in size, shape, and pencilling, and well deserved her place; the second also very good indeed. The third was of good shape and a grand bird, but her tail looked suspiciously on one side at times. 342 (Pope), a very large but badly-marked hen.

In *Partridge cockerels* the first was a large good bird and heavily feathered. Second also good; a young friend, we fancy. The third struck us as being narrow. We should have placed here in preference pens 359 (Shrimpton), or 371 (Fowler). 351 (Tudman) had a nasty comb, but was otherwise good. 366 (Leeming) a good bird, and superior again to the third.

Partridge pullets were a lovely class. The winner walked in easily; she is a real beauty. 382 (Shrimpton) was a good bird, but wall-eyed on one side. 373 (Taylor) we heard was disqualified for being an old bird; but though we scrutinised her very severely, and though we confess she looked a trifle antique round the eyes, still we could not have said positively she was an old bird, and we would have given her most assuredly the benefit of that doubt, which many another pullet (?) in the Show also enjoyed. The second-prize was very large, but bad in colour and markings. The third was a very young but good pullet. 394 (Taylor) was an oldish-looking but well-marked bird.

White Cochins made four good classes, the pullets being an unusually grand lot. The old cocks were not over the moult well; they all want another month. The first was a very fine well-made bird, and good in colour. The second was also good, but had a bad comb, and a comb which will not improve, we fear, as the season advances. He much reminded us of a cockerel of Mr. Burnell's we saw at Birmingham last year. The third we did not care for; he was an ungainly bird, and coarse-looking. 402 (Whitworth) very fine and large, but bad in colour.

In *hens* the first took the cup for the best pen in the four White classes. She had the ugliest comb we ever saw on a Cochins—huge, uneven, and coarse; but her shape, fluff, and wings were very grand. The second-prize hen was perfect in comb, but not quite so large, perhaps, as the first, otherwise we should have placed her first most certainly. Third a good hen too, but a little scaly on legs. 405 (Beldon) good, but more leg-feathering wanted. This hen had a very long wattle on one side, and a very short one on the other. Highly commended 415 (Holmes), a good hen.

In *cockerels* the first was a beauty; his colour and shape very grand, but he was rather too hooked for our taste; still he was honestly shown, and will be a wonder as an old bird; and here we should have gone for the White Cochins cup. The second was coarse, and had inside leg-feather, which we dislike so much. Third a good bird, but badly washed. Highly commended 418 (Christy), a good bird with sound comb.

There were nineteen *White pullets*, and we never saw nineteen better ones. The first was large, but had a huge comb, much resembling the cup hen's, and was not of very good colour. Second very young and very white, and will make a wonderful hen if all go well. Third a capital, well-shown bird, the same bird we saw at Long Sutton, we imagine. All the highly commended birds were good, and would have won easily in any ordinary competition. We think this breed has made rapid strides of late years in quality and quantity.

The *Black Cochins* came to the front well. We do think this breed is rapidly improving, but we should like to see better legs and better shape; in so many of the specimens there seemed signs of some cross which had not been bred out. The colour is certainly improved since last season. The old cup birds were a showy pen, but the hen was too large for the cock, and both want more leg-feather. The second was a good pen; but we saw a few red feathers on the neck. The third had a grand old hen, the old friend we have so often noticed; she begins to look old now, but certainly we never saw such feathers and fluff in a Black before.

Black cockerels, too, were for the most part much improved. The first cockerel was the Oxford cup bird; he was run up to £7 or £8 in the auction, and was cheap too. The second had the best head in the class; he was not quite so large as the first, but his colour very rich. The third was a large bird, and well made. 459 (the American bird) did not look so well as at Oxford.

In *Black pullets* the cup bird was of beautiful symmetry, and good in comb, with a beautiful lustre; we thought this the best Black pullet we have yet seen. Second was also good; she was large, and very fairly symmetrical. The third was a good-coloured very young bird. 485, commended (Aspden), a capital well-grown bird; 477 (Athole), a good colour, but a most shocking comb: this was, we think, the third Oxford pullet.

The £5s. Cochins Sale class had some capital pens. The first walked in easily. They were a good pen; the cockerel of fine

colour, but a little white in wing. This pen fetched a long price at the auction. The second was a fair pen of Whites; the cockerel well-grown, but rather creamy; the pullet small. We should have almost placed here pen 509 (Shrimpton), where the cockerel was of beautiful colour, and had a very good tail in shape and colour. The third were fair Buffs; not so good as 508, which were fourth. We fancied in this fourth pen was the Buff cockerel, we believe, which won third at Birmingham, and which some said should have been first (we speak of the late summer Show); he is, however, poorly leg-feathered, though of good colour. 526, highly commended (Fowler), was a good pen, promising to make-up well.

Brahmas.—The entries in the ten classes for Brahmas numbered 675—a good-sized poultry show in themselves, and, if we mistake not, half the number of the whole Crystal Palace Show five years ago. Greatly has the standard risen in the Dark Brahma classes since two years ago. We can hardly imagine it possible for greater perfection to be attained in cockerels as to size and colouring; form may well be improved, for the giant frames which now win lack much in comeliness. The pullets, on the other hand, are marvels of pencilling and colour, but not larger, if so large, as the winners of a few years ago. Vulture hocks, or at least the nearest approach to them, are again in favour, and in the Dark classes bare legs have totally disappeared.

Dark cocks, as a class, were not well through the month. First on the list Mr. Ansdell's bird, the cup-winner, was a fine tall bird of exquisitely-silvered back and hackle, bright green wing-bars, and black fluff. Second was a much more compact though far less bird, beautifully through the month, inclined to the fault of vulture hocks above, with poor leg-feathering below. Third was a bird of the same type as the first, but his comb was large and loose. We did not admire him. Fourth was a very massive bird, deep-breasted and short-legged, decidedly hooked, but splendid in foot-feathering.

Dark Hens.—Mr. Lingwood's cup pen was a marvel in breast-pencilling and good all round, but as far as we could see in her elevated position, somewhat indistinctly marked on the back. Second a beautiful bird of the Silver-Grey type, moulted-out like a pullet. Third a grand bird, the very perfection of shape, unmistakably vulture-hocked. Fourth also fine in form and breast-pencilling, too, but lighter than we like in fluff. Fifth another large well-shaped hen, but too brown.

Cockerels.—There was a strange family likeness in six of the eight winning cockerels; they were huge birds of the old Brahma type, totally distinct from the Cochins form, with up-standing tails, this ornament in several of them being larger than we can admire. Mr. Ansdell was the proud winner of the twenty-guinea cup; his bird was tall, broad, and well filled, densely black in fluff and breast; he well deserved his place. Second had a beautiful little head combined with great size: both these birds had long tails. Third another bird of the same type, with a very peculiar, and we thought ugly tail, like an exaggeration of the Gronse tail; still he was a grand fellow in size, and well-marked. Fourth was somewhat spoilt to our fancy by the centre ridge of his comb being very high. Fifth was a neat bird of Miss Douglas Pennant's, much smaller than his superiors in the list, and with too depressed a comb, but well pencilled. Sixth was a bird of Mr. Lingwood's own style, and one which not a long time ago could not have failed to secure the highest honours. Seventh, another good bird, not quite so broad as the sixth. Eighth, a very nice, very young bird, somewhat lightly pencilled in hackle, moderately feathered, and with beautiful orange-coloured legs.

Pullets.—Size and form, as we have said, struck us as wanting in this class. The cup went to a bird of as beautiful pencilling as we have ever seen—dark and crisp on a silver ground, but she was small and poorly feathered on the leg. Second was not unlike her, now a well-known bird, perhaps not quite so perfect in pencilling as the first, but a little larger; she also is rather under-feathered on the leg. Third was a bird nice all round, but very light on the head. We admired the fourth-prize bird, and should have put her higher; she is large with small and even pencilling, the type of bird Mr. Wright generally shows. Fifth, a fine bird in form and colour; she certainly did not look to us like a bird of this year, otherwise we should have put her in the first place. Sixth would also have been higher had her head not been white. Seventh was small but most strikingly pencilled, the markings being glossy black on a pure white ground. Eighth was a fair bird all round; probably her distinct pencilling up to the throat caught the Judge's eye. Over fifty birds received notice in this class. There followed a Selling class for pairs (cock and hen), not exceeding five guineas in price; some good birds found their way into it, but as a whole it hardly deserves much criticism, being chiefly remarkable, as might be expected, for ill-assorted matches. A fine deep black-fluffed cock in the fifth-prize pen caught our eye, and appeared one of the best birds in the class.

Light Brahmas were not behind their Dark relations in number, though in quality we thought them by no means their equals; no bad birds found their way into the prize list, but

beyond the winners there were many, especially in the classes for chickens, poorly feathered, and second-rate in style.

Cocks.—The leg-feathering in this class was good, at least in the case of the winners, being full without vulture hocks. The cup went to a cock of medium size and very neat shape; dark in neck-hackle and other points. Second was a fair bird, not well through the moult; his tail hardly grown, and some old yellow neck-hackle still apparent. Third had an ugly comb, but clear good hackle and splendid foot-feathering. Fourth was pale in comb, fair in hackle, and remarkable for fine deep fluff.

Hens.—The cup bird did not strike us as large, but she was very white; apparently she was mopeish when we looked at her, and may not have looked her best. Second was, in our opinion, far ahead—a beautiful and faultless bird, perfect in neck-hackle and foot-feathering. Third was neither so good in marking nor so clear in ground colour as the second. Fourth was a very good hen; here and there the dark under-colour peeped through too much, but we should have put her second.

Cockerels.—The first cockerel in the catalogue was a nice bird all round and unnoticed, which led us to expect greater general merit than we found. Mr. Maynard's cup cockerel was grand in size, and taking the bird all round the award was a correct one; his colour was good as Lights go (they are nearly all tinged with yellow), his legs well feathered, with soft curls round the hocks; a tinge on the neck-hackle took somewhat from his beauty at first sight. Second was much longer in limb than the first, but a less compact bird; his under feathering was very dark, and tail a rich black. Third, a well-shaped bird, with just a nice medium quantity of neck-pencilling and leg-feathering. Fourth, a tall and stately bird, not so white as he might be, with intensely black under-down. Fifth a very nice bird, not dark enough in neck-hackle, or white enough on back and wings, but correct in leg-feathering and richly black in tail. Sixth such a bird as we should like to breed from, not large, but shapely, very white, with lovely neck-hackle, but sparsely feathered on the leg. Seventh was not remarkable for form, but had a fine and delicate white edging to his tail feathers, so difficult to acquire. Eighth, a tall cockerel, with poor comb and little hackle-pencilling, but with attractive clean yellow legs. Beyond the winners many cockerels were narrow and poor in leg-feathering.

Pullets.—In this class the earlier winners were grand birds; then there seemed a great gap in merit, and a number of second-rate birds followed, very nearly equal in point and size. The cup bird, we suppose, won her position with her form and deep fluff; we preferred the second bird with exquisite neck-hackle, and nearly the equal in figure of the first. Third was a fine, very white pullet, but with the common deficiency in neck-marking. Fourth was a pure white in ground colour, and well feathered. Fifth, not large or deep, otherwise a good bird. Sixth, a large bird with fair markings, but here we come into a region of mediocrity. Seventh was a very clear-coloured bird, but brownish in neck-hackle. Eighth was too much marked on the back. 1082 (Percival), was nice pullet, well hackled, and better, in our opinion, than many in the prize list. 1092 (Broad), was very large, and we suppose left out for her unfortunately hen-like look. A five-guinea Selling class followed, but not worthy of special notice when so many interesting classes follow.

Polands.—These were not large classes, but all were good. The first Gold cock was very fine, and splendid in crest and colour. Second also with a splendid crest. Third, good colour, but not so good in tail and crest as the other two winners. The first hen was very good, but too white in crest. Second and third good birds, but not so well spangled. We liked 1848 (Unsworth), or 1849 (Beldon), better than the third. 1854 (Taylor), a good hen.

Silver-spangled were good. The cup cock was very yellow in crest, or else it was a marvellous one, and the bird was well shown. Second and third good hens with fine crests, and well marked on the body. 1857 (Adkins), good hen, but too pale. Silver hens were a beautiful lot. The first well placed. Second and third very good. 1868 (Hinton), a charming hen, well marked, and good colour. 1872 (Long), a good bird, and will be better still in two or three weeks.

Black with White Crests mustered poorly. The first cock was a wonder, a most glorious crest, and very good in shape. Second, a nice bird, with fine crest. We do not see why third was withheld, as pen 1882 (Darby), was quite worthy of the place. The hens were well placed, and were three good birds. Pens 1885 and 1887 (Edwards) had wonderful crests, but they had not a trace of black in front, and they were too parted in the centre; still they were two good birds.

Houdans.—There were four large and good classes of Houdans. We did not care for some of the prize birds as much as some of the unnoticed ones, but it must have been a hard and difficult work to judge here. The cup bird was a large bird, but must have been closely pressed by the second, which was very large and good in comb and crest. The third was a fine bird, but a little too red in hackle, still he deserved his place. 1271 (Dring),

large and good. 1274 (Lake), a well-shown stylish bird, but hardly large enough.

In *hens* the first was smart-looking and well marked; we believe she was second as a pullet here last year. The second we did not fancy; she looked rough and untidy. The third a large bird, but a shade too light, still this was a good hen, and we liked her better than the second; but we liked pen 1299 (Dring) the best in the class. She was very grand in colour and shape, and was the bird we noticed as first at Nottingham, we believe. 1316, highly commended (Wood), very good indeed. 1307 (Quibell) good in size but rough in legs.

The *cockerels* were a good class, with not much between first and second, both being large stylish chickens. Third rather long on the legs, but a good bird. 1345 (Whitworth), large and good. The fourth was a massive heavy bird, useful, we should say, for the breeding pen. 1332 (Hibbert) a good smart bird.

In *pullets* we liked the first very much; she was good all round. Second rather small, but good colour. The third was rather narrow, but well marked. Fourth a very good bird with splendid claws. 1375 (Neville), very good. 1382 (Vallance), a promising bird of good shape. 1390 (Robin), an admirable pullet, and good in head.

CREVE-CEURS.—These, though they did not muster so well as the Houdans, were good classes. We liked the first old cock immensely, his shape and colour being very good. Second also a large fine bird, well shown. The third rather weedy, but good colour. 1397, highly commended (Mortimer), very good indeed.

The *hens*, too, were fine, as good as any we ever saw. The first had a grand crest, and was generally good. Second large and heavy. Third a fair bird, cheap at £3 3s., catalogue price. 1424 (Holmes), a good-shaped bird.

The winning *Crève cockerels* were superb. The first and second were quite pictures; we think they were the Oxford two. They looked none the worse, and walked in first and second. Third was a good colour, but we fancied his tail was on one side; we looked at him several times, and each time were of the same opinion, though we know a bird will sometimes carry its tail wrong in a pen when he is really all right at home. 1448 (Ewbank) a good bird.

Pullets were a good collection. First and second were both good, and very nearly balanced. The third good and cheap. 1463 (Wood), very massive and large, as was 1466, belonging to the same gentleman. 1467, commended (Fowler), very good indeed, but young.

ANY VARIETY CLASS.—This was a wonderfully good class, and the collection of breeds was very varied. Large La Flèche were first. They were a good pen, and had regular La Flèche heads. Second, charming White Minorcas, and beautifully shown. Third, White Sultans, one of the best pens we ever saw, good in all points, and very white. The extra fourth were a capital pair of White Leghorns, well shown, and good in comb and colour. Highly commended (Walker) capital Cuckoo Cochins; highly commended 1922 (Kitchen) Brown Leghorns, the best cockerel we ever saw of this colour, and mated with a good hen; 1927 (Ward) good Leghorns, and 1923 (Loft) admirable Sultans; 1935 (Long) good Black Minorcas, and 1941 (Jacomb) fine White Leghorns with huge combs. We admired this class immensely, and thought the winners were well chosen.

SILKIES were a good class. We fancy this breed will soon be in great estimation. The demand increases steadily, and the use of them for sitters is now appreciated by all. This breed has had its points laid down at last, and is judged by them, we are glad to see. The first was the Oxford cup pen; the second a good pair, and well shown; the third a nice cockerel and a pullet with a most exquisite crest, but sadly lacking in leg-feather. Mr. Broad had a nice cockerel, but too red in comb. We thought 1914 (Cresswell) well worthy of mention; 1915 (Darby), a very neat pair, but not quite white enough, still they were a good-shaped pair, with neat heads.

BANTAMS.—The *Game Bantams* struck one as being a little overlarge, and, having more of the *Game fowl* in them, get its size. The *Black Reds*, as usual, were the best. *Brown Reds* improved, and *Duckwings* also; but the *Pile Game* more improved than either. They now look game, and no mistake. The *Black Bantams* seem now more even than formerly; as witness of this, able judges considered 2693, only a highly-commended pen, as good as the first prize.

Sebrights are again Gold and Silver, and not cream-coloured. The first Gold, beautifully laced; so also second, Silver. The *Nankin* were poor indeed, and the first prize rightly withheld. *Frizzled*, and *Pekins*, and others brought up the rear; the former of these, the prize one, beautiful in quaintness. The *Whites* were few.

THE PIGEONS.

THESE were, as last year, arranged in the transept in front of the theatre, and that transept was more than full, as the pens of the four pairs had to be placed elsewhere. First came Class 112, *Blue-pied Pouter Cocks*.—First-and-cup, a fine shaped and limbed bird, not certainly in good show, but undoubtedly A1. He was first also last year and at Glasgow, and his owner, Capt.

Hill, is to be congratulated on his bird and his success; second is a fine bird; third, slender in girth, lengthy, but a little foul in legs.

Black-pied Cocks.—This class was not so good as the young *Blacks*. First is a noble bird and not oiled down like one near to him to improve his colour. Why is this done? Second, a bulky bird, heavily plucked in legs, but colour good; third, inferior to the other prize birds save in slenderness, in which point he excels.

Red and Yellow Cocks.—Would there were a sufficient number of entries to warrant the separation of these classes, but even both together they made but a small class. First, a good *Dark Red*, the only good *Red* in the class, and the limbs nicely covered; second, the colour inferior; third, a *Yellow*, the only *Yellow* shown in this class, a fine long-limbed graceful bird.

White Pouter Cocks.—This was a large class. First, a remarkably fine long bird; second, shape good, but legs rather bare; third, another long bird.

Pouter Cocks, Any colour and marking.—First, the huge *Mealy* that won last year. I should like a class for *Mealies* and *Chequers*, perhaps that will come like other good things; second, a *White* with a splashed tail, no doubt very useful in the loft; so also of the third-prize, another good stock bird to keep up the size of the *Pouter*.

Pouters, any colour, bred in 1874.—These young birds, like all young birds at shows, form a very interesting class, because they promise what the future birds will be. First-and-cup a *Black*, colour and markings excellent, but in bad show; second a *Yellow*, very good in crop, but apparently a little short; third a *Blue*, a nice clear colour, who will do more presently.

Pouter Hens, *Blue pied*.—First-and-cup, a splendid bird in colour, and limb, and globe, but bars not too black, and tail a little short; second small and inferior save in globe; third, well-shaped and long, but rather too flagged. No. 3000 was a very long and fine bird, 18½, and superior in my judgment to the second save in colour, globe being too gay.

Black Hens.—First good; second too heavily flagged and somewhat about—the fault of *Blacks*, for they are apt to be *Hottentot* beauties; third and No. 3008 very deserving, and marked, as it quite deserved, very highly commended.

Red or Yellow Hens.—First, the best *Red* shown as to colour; shape also very good. Second a *Yellow*, not a sound colour, but a pretty bird; third a *Red*, large, but otherwise not deserving.

White Hens.—First very large; second, a better bird belonging to the same owner; third, excellent limbs. The *Whites* were large entries.

Any Colour and Markings.—First, a very queer colour, but such a graceful bird; the first last year, the best hen in the Show this, a model of a graceful lengthy *Pouter* hen. Second, a washed-out *Mealy* but long; third, a *Chequer* and not very noticeable.

Any-colour Hens bred in 1874.—First, a beautiful *Blue* bird, not yet, I believe full four months old, a charming bird, most promising; second, none too good a *Blue*; third, to my thinking a better bird.

Having now passed in review the *Pouters* of the Show, I am aware that they have been spoken strongly against, but I think that absent birds are often thought the best; but if they were brought side by side with those less highly esteemed they would not seem so very good after all. Absence, like distance, "lends enchantment to the view." There is certainly room for improvement, and as the young *Blacks* are better this year than the old ones, I hope next year other classes, especially *Yellows*, may show marked advance.

Carriers.—After a glance at the *Pigmy Pouters*—a pretty little lot of pretty fellows—and their mates, I come to the high-class *Carriers*.

Black Cocks.—First, fine bird, noble in beak-wattle, good in eye, grand in size, with well-fitting beak, and in good condition. Second, an old bird, doubtless; beak-wattle excellent, eye in somewhat a bad state. Third, well-shouldered bird, eye good, beak not quite so good. No. 300, a very splendid bird of Mr. Montgomery, standing well off the ground. A grand *Pigeon*, but not noticed.

Black Hens.—First, a very good pen; second, nice little hen; third, good, but aged, and in very bad condition.

Dun Cocks.—First, a noble bird, but a little mottled in plumage; second, very sound in colour; third, a very nice bird.

Dun Hens.—First-and-cup—and deserved her honours—beautiful plumage, graceful form, and all the look of a *Carrier*; third better than second, except in plumage.

Any-colour Cocks.—First *Blue*. Head excellent; colour not too good—somewhat smoky. Second, *Blue* again, and better colour, but a smaller bird; third, a good bird.

Any-colour Hens.—The second-prize pleased me best.

Black Carrier Cocks, 1874.—Here came the treat as to *Carriers*. They were a large and very beautiful class, perhaps never such seen before. First, very good, but I must own I liked second best, the colour brilliant, and when so it adds much to the *Carrier's* beauty; third, very excellent, and fourth deservedly given. 3196 very highly commended and admirable.

Black Hens, 1874.—This, a beautiful class of young hens, coming hard upon the cocks, and the prize birds all very worthy.

Dun Cocks, 1874.—Very good class again, and must, from their evenness, have much puzzled the Judges.

Dun Hens, 1874.—First, very good in colour, and wonderful for her age; second, well-shaped and looks the thing; third, fair only; No. 3270 very highly commended, very good.

Blue Cocks, 1874.—First and second, about equal; third, inferior in eye.

Blue Hens, 1874.—First, a wonderful-headed bird; second and third, very good.

Such a number of excellent young Carriers do away with all fear, and I own I had some, that the Carrier fancy was declining in quality and number of fanciers.

Carriers, Any age, pairs.—First, fine pair of Blacks; second, Blues, hen very good-headed bird; third, Blacks again.

Dragoons (misprinted in the catalogue, Dragons).—Blues, single bird.—First-and-cup, beautiful colour, but to my mind a heavy bird; London style, which often means a bad Carrier. A Dragoon should be "a light little, tight little fellow," and not a Horseman. I know others, and worthy fanciers, differ from me, but I must say what I believe. Second, again too heavy; third, better; and 3316 better still. 3323, good; 3325, good also; 3331, a good bird; 3336, the best of the lot to my mind.

Silvers (Black bars).—First-and-cup, heavy style. 3353, best perhaps in class. Silvers (Brown bars), first-and-cup, nice shape. 3368, very good bird; the second-prize very good. I much like Mr. Bishop's Brown-barred Silvers, and I hope this class will be kept up throughout the country.

Red or Yellow.—First, a very fine colour throughout, in fact in colour perfect. Many in this class very heavy, as, for instance, very highly commended, 3393.

White, or any other colour.—First-and-cup a beautiful White, but a little broad in skull; second a Grizzle, with too much wattle under bill.

Any Colour, 1874.—First, a dark-barred Silver, and a very good bird; second, good; third, too much wattle and too broad skull. 3452, very highly commended, a good bird.

Almond Tumblers (Cocks any age).—First took the champion cup for best Pigeon in the Show; the colour won, beating Mr. Yardley's little champion, whose tail has become over-dark, and so came in third. But the second, son of the third, is hard upon Mr. Fulton's champion. The whole three indeed are splendid Almond cocks.

Hens (Any age).—First, second, and third, beautiful hens and admirably judged.

Almonds, 1874.—A very promising class.

Balds or Beards (Cock or hen).—First-and-cup, Mr. Woodhouse's Blue Bald, a gem in colour, head, shape, and bars; second, a Black Beard; third, a Silver Bald. This is a very pretty class, and I was glad to see it so strong.

Tumblers (Any other variety).—Cock, any age. Second, a good Kite. Sorry not to see any Mottles taking prizes, as they are birds of surpassing beauty and before Whole-colours, such as Kites.

Hens.—Reds, and Kites to the fore.

Barb Cocks (Black or Dun).—A good class, but the day of many birds nearly over from age.

Hens (Black or Dun).—First a good Dun; second a good Black.

Any Colour.—First Red, very old and bad condition. Among the hens was, first, a very good Yellow. The young birds were good, but really some looked a little too old; perhaps their owners mistook 1873 for 1874.

Jacobins (Red or Yellow).—First-and-cup the very thing in hood, chain, and mane, and a nice long bird too, which I like. Second a good rich Red.

Any Other Colour.—First-and-cup a good Black, a very good bird. Second White, and an extremely nice bird. Third White again. This class wants cultivating, for it is one of the prettiest. Whites, Blacks, and Blues are a pleasant change from the many Reds and Yellows.

Fantails (Any colour).—First-and-cup a well-shaped but largish bird; second nice, but I preferred third, as it was *petite*, as a Fan should be.

Nuns (Any colour).—I fear this class has been discouraged by the talk against it. All the prize birds were Black, but I was glad to see some very fair Reds and Yellows.—WILTSHIRE RECTOR.

Dorlings (Coloured).—Cock—1, T. C. Burnell, Micheldever. 2, A. Darby, Little Ness, Shrewsbury. 3, Henry Lingwood, Barking, Needham Market. 4, F. Parlett, Gullerwood, Chelmsford. 5, H. Humphrey, Ashington. 6, Viscount Tarnham, Shillingham Park. 7, Mrs. Arkwright, Sutton, Seaboard; F. Caws, Little Testwood; H. Young, Stapleton.

Dorlings (Coloured).—Hen—1 and Cup, Rev. E. Bartram, Great Berkhampstead. 2, F. Parlett. 3, A. Darby. 4, Mrs. Arkwright. 5, F. C. Burnell (2); J. Walker, Rochdale; T. Braden, Conopley, Leeds; Mrs. Arkwright, Henry Lingwood; Viscount Tarnham. 6, H. Humphrey. 7, Mrs. B. B. Sawwell, Aylsham. 8, F. Kell, Wetherby; Mrs. G. Meek, Balcombe (2); Mrs. T. Hind, Kendal; W. H. Demson, Woburn Sands; Viscount Tarnham; C. Fannell, Weybridge.

Dorlings (Coloured).—Cockerel—1 and Cup, T. Raines, Stirling. 2, Mrs. Arkwright. 3, Lord Tarnham. 4, Rev. H. Hamilton, Combe St. Nicholas,

Chart. 5, J. Clark, Fochabers. 6, T. C. Burnell (3); E. Rice, Sandwich (2); A. Jackson, Great Broughton; H. Humphrey; F. E. Kell; Mrs. Griggs, Romford; Rev. E. Bartram; W. H. Demson; Rev. T. Wren, Malton; S. Brierley, Rochdale; S. Newick, Hinton St. George; Lieut.-Col. B. Lane, Bracknell; J. White, Vauxhall; Mrs. Arkwright; Viscount Tarnham.

Dorlings (Coloured).—Pullet—1 and Cup, H. Lingwood. 2, E. Ponting, Buckland Newton. 3, S. Newick. 4, J. O. Hodges, Bagshot. 5, Mrs. Somerville, Chirk. 6, J. O. Hodges. 7, E. Rice. 8, W. Rutledge, Kendal; Rev. E. Bartram (2); F. Parlett; S. Brierley; Lieut.-Col. B. Lane; Mrs. Arkwright; L. Pilkington, Gateacre, Liverpool; J. White.

Dorlings (Silver-Gray).—Cock—1 and Cup, W. M. Shaw, Bury St. Edmunds. 2, W. H. Demson. 3, D. Gibson, Earlshead.

Dorlings (Silver-Gray).—Hen—1, O. E. Cresswell, Early Wood, Bagshot. 2, D. Gibson. 3, W. H. Demson. 4, W. W. Rutledge. 5, O. E. Cresswell. 6, L. Wren, Lowestoft; O. E. Cresswell.

Dorlings (Silver-Gray).—Cockerel—1 and Cup, O. E. Cresswell, Bagshot. 2, W. W. Rutledge. 3, J. J. Moser, Kendal. 4, O. E. Cresswell; W. Roe, jun., Newark; F. Cheesman, Chart Court, Ashford; Miss Pasley, Moor Hill, Fackham; W. Plummer, Canterbury.

Dorlings (Silver-Gray).—Pullet—1, W. W. Rutledge. 2 and 3, O. E. Cresswell. 4, D. Gibson; W. W. Rutledge; L. Wren; O. E. Cresswell; Rev. T. E. Cato, Wye Vicarage.

Dorlings (Blue or Cuckoo).—1 and Cup, J. Patney, Dorking. 2, Countess of Dartmouth, Alhington. 3, H. Allen, Wood Green. 4, C. Howard, Peckham; A. Darby.

Dorlings (White).—1 and Cup, J. Robinson, Garstang. 2, Mrs. M. A. Hayne, Fordington. 3, O. E. Cresswell. 4, Mrs. M. A. Hayne; W. Badger, Baschurch; O. E. Cresswell.

Dorlings (Any variety).—1, W. R. Middlecott, Dulwich. 2, H. Mills, Dorking. 3, Viscount Tarnham. 4, Mrs. M. A. Hayne; H. Beal, Slough; F. Caws; Rev. E. S. Tildeman, Childerich Vicarage; R. W. Richardson, Meaux Abbey, Beverley; J. J. Moser.

Cochins (Cinnamon or Buff).—Cock—1, Cup, and c, W. A. Burnell. 2, J. Walker. 3, H. Tomlinson, Birmingham. 4, Lady Gwydyr, Stoke Park.

Cochins (Cinnamon or Buff).—Hen—1 and 2, W. A. Taylor, Manchester. 3, A. Darby. 4, J. Walker, H. Tomlinson.

Cochins (Cinnamon or Buff).—Cockerel—1, Lady Gwydyr. 2, H. Tomlinson. 3, R. F. Percival, Northenden, Manchester. 4, W. H. Crabtree, Levenshulme.

Cochins (Cinnamon or Buff).—Pullet—1 and Cup, Lady Gwydyr. 2 and 3, Mrs. A. Tindal. 4, W. A. Burnell, St. Mary's, Walsby. 5, F. J. Harrison, P. Percival. 6, Lady Gwydyr. 7, W. H. Crabtree (3). 8, W. Ryland, Erdington; C. C. Ewhank, Langford Vicarage; W. H. Crabtree; W. A. Taylor.

Cochins (Partridge).—Cock—1, T. Stretch, Ormskirk. 2, W. A. Taylor. 3, F. Bennett. 4, E. Todman, Whitehall, Salop.

Cochins (Partridge).—Hen—1, Cup, and 2, E. Tudman. 3, W. A. Taylor. 4, T. Stretch.

Cochins (Partridge).—Cockerel—1, Mrs. A. Tindal. 2, E. Tudman. 3, B. Jones, Neath. 4, E. Tudman; J. K. Fowler, Aylesbury. 5, T. M. Derry; J. Leedham.

Cochins (Partridge).—Pullet—1, E. Tudman. 2, R. F. Percival. 3, Mrs. A. Tindal. 4, R. P. Percival; G. Shrimpton, Leighton Buzzard; W. A. Taylor. 5, W. A. Taylor.

Cochins (White).—Cock—1, Capt. G. F. Talbot, Edenbridge. 2, R. P. Percival. 3, J. Turner, Bath. 4, Mrs. E. Pryor, Weylyn.

Cochins (White).—Hen—1 and Cup, W. H. Crabtree, Kingskerswell. 2, R. S. S. Woodcock, Henbury, Tunbridge Wells. 3, W. H. Crabtree, jun. 4, W. A. Burnell; H. Beldon, Giltstock. 5, Mrs. A. Williamson, Leicester.

Cochins (White).—Cockerel—1, Mrs. A. Williamson. 2, S. R. Harris, Cusgarne, St. Day. 3, R. W. Beane, Mrs. A. Christy, Edenbridge.

Cochins (White).—Pullet—1, W. A. Burnell. 2, R. S. S. Woodcock. 3, C. Bloodworth, Cheltenham. 4, R. P. Percival; Mrs. A. Williamson. 5, W. A. Burnell.

Cochins (Black).—1 and Cup, H. Beldon. 2, Col. F. C. Hassard, Sheerness. 3, A. Darby.

Cochins (Black).—Cockerel—1, E. Kendrick, jun., Lichfield. 2, Lady Gwydyr. 3, T. Aspdin, Church. 4, H. Feast, Swansea; T. L. Nash, Sprouton. 5, H. Beldon.

Cochins (Black).—Pullet—1 and Cup, Lady Gwydyr. 2, T. Aspdin. 3, H. Beldon. 4, T. L. Nash; E. Kendrick, jun. 5, T. Aspdin.

Cochins (Any variety).—1, Lady Gwydyr. 2, W. A. Burnell. 3, Mrs. A. Tindal. 4, W. A. Burnell. 5, J. J. Walker, Kendal; J. Turner; G. Shrimpton; J. K. Fowler.

Brahmas (Dark).—Cock—1 and Cup, T. F. Ansell, Cowley Mount, St. Helen's. 2, R. P. Percival. 3, F. Bennett, Shifnal. 4, A. Bantford, Middlebury. 5, Mrs. Vigor, Uxbridge. 6, H. Waterman, Anderton, Devonport; W. G. Muligan, Springfield, Belfast; Mrs. J. G. Hepburn, Sidcup; Hon. Mrs. A. Baillie-Hamilton, Kalgemount, Woburn; W. Whitley, Sheffield; Horace Lingwood, Cretingham; J. Watts, Birmingham (2). 7, M. Leno, Markyate Street; J. Walker, Keele; Lady Gwydyr.

Brahmas (Dark).—Hen—1 and Cup, Horace Lingwood. 2, T. F. Ansell. 3, Mrs. Arkwright. 4 and 5, W. H. Crabtree. 6, Mrs. J. G. Hepburn; Mrs. Vigor. 7, F. Bennett; J. F. Bennett; Hon. Mrs. A. Baillie-Hamilton; W. G. Muligan, Springfield, Belfast; Mrs. J. G. Hepburn, Sidcup; Hon. Mrs. A. Baillie-Hamilton, Kalgemount, Woburn; W. Whitley, Sheffield; Horace Lingwood, Cretingham; J. Watts, Birmingham (2). 8, M. Leno, Markyate Street; J. Walker, Keele; Lady Gwydyr.

Brahmas (Dark).—Cockerel—1, Cup, Rev. J. D. Peake. 2, M. Leno. 3, J. Evans. 4, J. Watts. 5, Mrs. Arkwright. 6, Horace Lingwood. 7, W. A. Wright. 8, Newham and Manby, Wolverhampton. 9, Dr. J. Holmes; R. B. Wood, Uttoxeter (2); H. Chawner, jun., Uttoxeter; Horace Lingwood. 10, Rev. J. Richardson, Sandy (2); Mrs. M. A. Hayne; J. Stuart; Hon. Miss D. Pennant; J. Walker; R. P. Percival (2); Hon. Mrs. A. B. Hamilton (3); W. Birch, Barnet, Herts; G. W. Butler, Sirendham, Norfolk; F. Bennett; Dr. J. Holmes; F. Bennett (3); F. Pritchard; W. R. Garner, Dyke; Newham and Manby; G. Maples, jun., Wavertree; E. Kendrick, jun.; Capt. A. R. Warren, Emsworth; Horace Lingwood; J. Evans (3); J. Watts. 11, T. F. Ansell; H. B. Morrell; E. Pritchard (2); Rev. A. Van Straubenzee, Tettenhall Vicarage; L. Wright; Dr. J. Morrison, Kirkcaldy; W. H. Crabtree; J. Hill, Brentwood; T. Wakefield.

Brahmas (Dark).—1 and 3, F. F. Ansell. 2, J. Stuart, Helensburgh. 4, Newham and Manby. 5, F. L. Kendrick, Dorchester. 6, J. Evans. 7, F. E. Kell. 8, Mrs. E. Shuter, Bexley; Rev. H. Buckton, Shiffield; W. A. Peck, Wavertree; M. Leno; Mrs. A. W. Perkins, Beckenham; J. Evans; C. Holt, Rochdale; W. Hargreaves, Baccy; Rev. J. D. Peake; Lady Gwydyr; J. Watts (2). 9, Mrs. J. G. Hepburn; W. Birch; J. Peck, Lichfield; W. Mansfield, Dorchester.

Brahmas (Light).—Cock—1 and Cup, T. A. Dean, Marden, Hereford. 2, P. Haines, Palgrave, Diss. 3, J. Bloodworth, Cheltenham. 4, J. Mitchell. 5, Mrs. Peck; Mrs. A. Williamson. 6, Mrs. F. Cheshire, Acton; E. McMorland, Chesham.

Brahmas (Light).—Hen—1 and Cup, W. H. Crabtree. 2, Mrs. A. Williamson. 3, F. J. Cotterell, Birmingham. 4, F. Crook, Forest Hill. 5, R. P. Percival; W. Birch; Mrs. A. Williamson; S. P. Broad, Beigate; H. Treacher, Hayward's Heath; F. J. Cotterell; Rev. T. G. Wilson, Forest Hill; Mrs. J. T. Holmes; J. Long, Bromley Common.

- BRAMMAS (Light).—Cockerel.**—1 and Cup, H. M. Maynard, Holmewood, Isle of Wight. 2, P. Haines. 3, M. Leno. 4 and 5, Horace Langwood. 6, J. Leno. 7, T. A. Dean. 8, W. Young. 9, R. E. Horsfall, Grassendale Priory, Liverpool; J. Hewitt, Mashborough; Mrs. F. Cheshire; G. W. Pether; S. Lucas, Hitchen; J. Turner; F. Rayner, Shankha; J. Mitchell, Mosely, Birmingham; P. Haines.
- BRAMMAS (Light).—Pullet.**—1, Cup, and 2, P. Haines. 3, H. Chawner, jun. 4, Mrs. M. K. Shelley, Shepperton. 5, Horace Langwood. 6, J. Widowsom, Lupton, Derby. 7, J. H. Butler, Erding, in Birmingham. 8, Rev. G. Watson, Lupton. 9, Mrs. Pether; J. Bloodworth; Mrs. J. Walsh, Forest Hill; F. J. C. Corderell (2); M. Leno, Mashborough; Mrs. F. Cheshire; E. McMorland; H. Treacher; W. T. Storer, Broadwood; Mrs. T. Turner, Langwood; J. Watts. c, R. E. Horsfall (2); Mrs. Pether (2); Mrs. F. Cheshire; P. Haines.
- BRAMMAS (Light).—1, P. Haines. 2, M. Leno. 3, J. Smith. 4, K. Bird, Fulham. 5, Rev. G. Watson. 6, Mrs. F. Cheshire. 7, Mrs. F. Cheshire (2). 8, E. Keedrick, jun.; Capt. W. Savile, Wye; 9, J. Bloodworth; H. Chawner, jun.; D. Sullivan, Blackrock, Dublin; H. Prior, Hatching; T. A. Dean.**
- SPANISH.—Cock.**—1 and Cup, H. Beldon. 2, H. Wilkinson, Farley, Skipton; 3, E. Jones, Clifton. 4, J. T. Parker, Northampton; J. R. Rodbard, Wrington; Bristol; J. Barry, Bristol.
- SPANISH.—Hen.**—1, J. Leeming, Broughton, Preston. 2, T. Bamfield. 3, J. Thresh. 4, E. Jackson, Leechfield, Wolverhampton.
- SPANISH.—Cockerel.**—Cup, 1, and 2, Miss E. Browne. 3, E. Jones, vhc, H. Browne. 4, J. R. Rodbard; W. Woolley, Banbury, c, E. Jones; W. Woolley; H. Brown.
- SPANISH.—Pullet.**—1, J. Thresh. 2, J. Palmer, Acton. 3, P. F. Le Suer, 4, J. T. Parker; H. Brown; T. Bamfield, c, E. Jones.
- HOUDANS.—Cock.**—1 and Cup, W. O. Quibell, Newark. 2, W. Dring, Faversham. 3, J. H. Nicholls, Lostwithiel. 4, G. D. Harrison; W. Dring; F. Lake, Rodmersham, Kent. 5, W. A. Peel; W. Cutlack, jun., Littleport; W. O. Quibell; Mrs. K. Vallance, Sittingbourne; Rev. H. H. Dombraun, Westwell Vicarage, Ashford.
- HOUDANS.—Hen.**—1, Mrs. K. Vallance. 2, D. Lane, Hardwick, Gloucester. 3, J. K. Fowler. 4, G. D. Harrison, Grange-over-Sands; F. Lake; W. Dring; R. B. Wood. c, W. Dring; W. Cutlack, jun.; Mrs. C. Hill, Alton; W. O. Quibell; Capt. T. S. Robin, Jersey.
- HOUDANS.—Cock.**—1 and 2, W. Dring. 2 and 4, R. B. Wood. 3, W. O. Quibell. 4, W. Dring; R. J. Foster, Kingswood, Epsom; W. Whitworth, jun., Longsight, Manchester. c, G. D. Harrison; G. W. Hibbert, Godley, Hyde; H. Grant; J. W. Moyle, Beckenham; H. Feast; R. K. Penson, Ludlow; Capt. T. S. Robin.
- HOUDANS.—Pullet.**—1, W. H. Copplesstone, Lostwithiel. 2, P. Hanson, Whetstone, Union. 3, W. A. Peel. 4, J. K. Fowler. 5, F. Lake; D. Lane; Rev. H. Handley, Maltborough; Capt. T. S. Robin. c, W. Cutlack, jun.; G. D. Harrison; R. B. Wood.
- CAVEY-CEGERS.—Cock.**—1, G. W. Hibbert. 2, W. H. Crabtree. 3, H. Feast. 4, J. Walton, Croydon. 5, Miss Mortimer. c, W. Cutlack, jun.; W. R. Park, Melrose.
- CAVEY-CEGERS.—Hen.**—1 and Cup, W. H. Crabtree. 2, Mrs. Cross, Radhill, Ross. 3, J. Naisey, Alford. 4, W. H. Crabtree; Rev. J. G. H. Knight, Birstwith, Leicestershire; J. J. Malden, Biggleswade. c, W. R. Park; J. J. Malden; R. B. Wood; J. K. Fowler.
- CAVEY-CEGERS.—Cockerel.**—1 and 2, R. B. Wood. 3, J. J. Malden (2). c, Rev. C. C. Ewbank.
- CAVEY-CEGERS.—Pullet.**—1, E. Lantour, Hexton, Ampleth. 2, W. Dring. 3, Mrs. E. E. Llewellyn, Court Colman, Bridgton. 4, G. W. Hibbert; W. Dring; G. De Faye, St. Hebers, Jersey; R. B. Wood. c, W. R. Park; G. De Faye; J. K. Fowler.
- HAMBOURG (Golden-spangled).—Cock.**—1, H. Beldon. 2, Broadhead & Co., Holmforth. 3, J. H. Nicholls, Leechfield, Ashdon-under-Lyne; W. A. Hyde, Hurst, Ashton-under-Lyne; Duke of Sutherland, Tretham.
- HAMBOURG (Golden-spangled).—Hen.**—1 and Cup, Duke of Sutherland. 2, J. Robinson. 3, T. Blakeman, Teitshall, c, C. Parsons, Wolverhampton; Mrs. J. Pattison, Dorchester; J. Buckley; J. Robinson, Liddle, Otley; W. A. Hyde.
- HAMBOURG (Silver-spangled).—Cock.**—1, J. Carr, Swansea. 2, Ashton and Booth, Mottram. 3, H. Beldon. vhc, J. Fielding, Newchurch, Manchester; J. Robinson. 4, Duke of Sutherland.
- HAMBOURG (Silver-spangled).—Hen.**—1, Duke of Sutherland. 2, G. C. Holt. 3, J. Robinson; C. Mitchell; G. C. Holt (2); J. Fielding; H. Beldon; Ashton and Booth (2).
- HAMBOURG (Golden-pencilled).—Cock.**—1, Cup, and 3, H. Beldon. 2, J. Long. 4, J. Robinson; J. Walker; A. Pratt; C. J. N. Row. c, W. Speakman; Ashton and Booth; J. Robinson.
- HAMBOURG (Golden-pencilled).—Hen.**—1, H. Beldon. 2, W. Clayton, Birstwith, Ripley. 3, J. Walker. 4, J. Robinson; R. Dickson, Selkirk (2); H. Beldon. c, C. Bloodworth; A. Pratt, Kirkcaldy.
- HAMBOURG (Silver-pencilled).—Cock.**—1, J. Webster. 2, H. Beldon. 3, Duke of Sutherland. vhc, J. Robinson. 4, J. Webster.
- HAMBOURG (Silver-pencilled).—Hen.**—1, Duke of Sutherland. 2, H. Beldon. 3, B. Norton, Town Malling. 4, G. Ellis, Betchworth; J. Robinson; J. Walker; J. Long.
- HAMBOURG (Black).—Cock.**—1, J. Long. 2, H. Hoyle, Lamb, Newchurch. 3, R. Gladstone, jun., Broad Green, Liverpool. 4, C. Sidgwick; Rev. W. Serjeantson, Acton Burnell Rectory; H. Robinson; H. Beldon; J. Robinson.
- HAMBOURG (Black).—Hen.**—1, J. Stott & Booth, Bury. 2 and 3, Rev. W. Serjeantson. 4, Capt. E. Mason, Lincoln. 5, C. Sidgwick, Hyddiesden Hall, Keighley; W. Cutlack, jun.; R. Gladstone, jun.; H. Robinson; H. Beldon; N. Marior, Denton.
- GAME (Black Red).—Cock.**—1 and 2, S. Matthew, Stowmarket. 3, J. Mason, St. John's, Worcester. 4, E. Aykroyd, Eccleshall; J. Forsyth, Wolverhampton; S. Field, Bicester; W. J. Pope, Biggleswade; E. Swan, Colchester.
- GAME (Black Red).—Cockerel.**—1, Cup, and 3, S. Matthew. 2, D. Harley, Edinburg. 4, W. J. Pope. 5, P. A. Beck, Welshpool; W. J. Pope.
- GAME (Black Red).—Pullet.**—1 and 2, W. J. Pope. 2 and 3, S. Matthew. 4, J. Fletcher. 5, P. A. Beck.
- GAME (Brown Red).—Cock.**—1 and Cup, H. E. Martin, Sculthorpe. 2, S. Matthew. 3, R. Ashley, Nantwich. 4, F. Ward, West Farleigh (2).
- GAME (Brown Red).—Cockerel.**—1, C. H. Wolff, Altrincham. 2, S. Matthew. 3, T. Mason. 4, H. E. Martin. 5, C. H. Wolff, Worcester; R. Ashley.
- GAME (Brown Red).—Hen or Pullet.**—1, Cup, and 3, C. H. Wolff. 2, S. Matthew. 4, F. Lyon, c, R. Ashley; Miss Osborn, Yarnon; W. Clough, Ebury; T. Chesters, Nantwich.
- GAME (Duckwing).—Cock.**—1 and Cup, H. E. Martin. 2, W. C. Philips. 3, H. L. Cockeside, Kougham. 4, S. Matthew.
- GAME (Duckwing).—Cockerel.**—1, Hoo and Rev. F. G. Dutton, Bibury Vicarage. 2 and 3, S. Matthew. 4, J. Nelson, Hexham; E. Bell, Burton-on-Trent.
- GAME (Duckwing).—Hen or Pullet.**—1, J. Nelson. 2, D. W. J. Thomas, Brecon. 3, J. Fletcher.
- GAME (Pile).—Cock or Cockerel.**—1, H. C. & W. J. Mason, Birstal. 2, F. Sales, Crowle. 3, Hassell & Lunt, Market Drayton. 4, S. Mathew; W. Foster, Deal.
- GAME (Pile).—Hen or Pullet.**—1, E. Winwood, Worcester. 2, G. H. Fitz-Herbert, Sevenoaks. 3, F. Sales.
- GAME (Black or Brassy-winged).—Cock.**—1, 2, and 3, C. F. Montresor, Slough.
- GAME (Black or Brassy-winged).—Hen.**—1 and 3, C. F. Montresor. 2, G. F. Ward, Sproston Wood, Wrenbury.
- GAME (any variety).**—1, S. Field. 2, T. Mason. 3, A. C. Swain. 4, R. Ashley; W. Perrin, Nantwich.
- POLISH (Golden-spangled).—Cock.**—1, H. Beldon. 2, P. Unsworth, Louton, Newton-le-Willows. 3, H. Feast. 4, W. A. Taylor.
- POLISH (Golden-spangled).—Hen.**—1, A. & W. H. Silvester, Sheffield. 2 and 3, Rev. C. W. Shepherd, Trottesscliffe, Maidstone. 4, T. Dean; P. Unsworth; W. A. Taylor. c, H. Beldon; T. P. Edwards, Lyndhurst.
- POLISH (Silver-spangled).—Cock.**—1 and Cup, C. Bloodworth. 2, P. Unsworth. 3, G. C. Atkins, Lightwoods, Birmingham. 4, W. A. Taylor. c, H. Feast; G. C. Atkins.
- POLISH (Silver-spangled).—Hen.**—1, G. C. Atkins. 2, Bloodworth. 3, W. A. Taylor. 4, H. C. Atkins (2); J. Hinton, Warrminster; J. Long.
- POLISH (Black or any other variety).—Cock.**—1, P. Unsworth. 2, T. P. Edwards. 3, Withheld.
- POLISH (Black or any other variety).—Hen.**—1, T. Dean. 2, P. Unsworth. 3, J. Long.
- MALAY.—1 and Cup, J. G. Falle, Jersey. 2, J. Hinton. 3, Rev. A. G. Brooke, Shrawine. vhc, J. S. Routh, Cheltenham. 4, S. Elliott, jun., Liskeard. 5, B. Perry, Lynton; Capt. C. F. Terry, Reading; J. S. Routh; Rev. A. G. Brooke. c, Rev. N. J. Ruddy, Newbury (2); J. G. Falle; F. Harding, Walthamstow.**
- SILKIES.—1 and 2, R. S. S. Woodgate, Hawkhurst. 2, Mrs. J. T. Holmes. 3, S. T. Broad. c, Mrs. Presing, Park Lane.**
- ANY OTHER DISTINCT VARIETY.—1, Rev. N. J. Ruddy. 2, J. Crooke, jun., Wellington. 3, H. Feast. 4, O. Nicholson, Portsmouth. Extra 4, R. K. Fowler. 5, J. Walker; Mrs. E. E. Llewellyn. 6, A. Kitchen, Westerham; J. Crook, jun.; A. Ward, London; K. Loft, Woodmansey, Beverley; E. Williams, Caterham Valley; — Perkins, Marden Park, Caterham. c, Mrs. Blay, Worcester; A. Ward; J. P. Poyer, Ore House, Hastings; J. Long.**
- SELLING CLASS (Dorkings, Brahmas, and Cochins).—Cock.**—1, C. Bloodworth. 2, Lady Gwydyr. 3, J. K. Fowler. 4, F. Rayner. 5, R. W. Richardson. 6, O. E. Cresswell. 7, Mrs. J. G. Hepburn; D. C. Campbell, Brentwood; R. Swan; W. A. Burrell; S. Turner. 8, E. Keendrick, jun.; A. Gardner; W. H. Crabtree; E. W. Richardson; E. Berry, Biggleswade; Mills & Buckley, Healey, Rochdale; Viscount Turnour; J. Watts; Mrs. F. Cheshire. c, Rev. H. F. Hamilton; G. Ellis; Mrs. J. G. Hepburn; J. Bloodworth; Rev. W. Pearce, West Holsley; H. Yardley; F. Bennett; G. Shrimpton.
- SELLING CLASS (Dorkings, Brahmas, and Cochins).—Two Hens.**—1, J. N. Whitehead, Bridgwater. 2, H. Humphrey. 3, G. W. Pether; 4, J. H. Cull, Camden Road, Holloway. 5, J. Clark. 6, H. M. Maynard. 7, R. K. Bulb, Newport Pagnell; J. Zinsch, Birstwith Hill; E. H. De L. Sumner, Chichester; Rectory; J. P. Poyer; J. Bloodworth; Mrs. J. G. Hepburn; Hon. Mrs. A. B. Hamilton; Miss C. Brown; E. Kendrick, jun.; W. Whaley, Addington Park; W. J. Russell, South Norwood; E. Pritchard; Viscount Turnour; Rev. A. W. Warde, Little Harsted Rectory.
- SELLING CLASS (Dorkings, Brahmas, and Cochins).—1, Lady Gwydyr. 2, H. Beal. 3, G. W. Pether. 4, Mrs. J. I. Williams. 5, H. Yardley. 6, T. Vakefield, Newton-le-Willows. 7, W. A. Burrell; D. Young; W. H. Crabtree; Mrs. J. Watts; W. A. Taylor. 8, H. Brown (2); Miss Mortimer (2); L. Lane; J. P. Poyer; Mrs. J. K. Radford; H. M. Maynard; W. Whitworth, jun.; H. F. Price, Weston-super-Mare; F. Bennett (2). c, W. Dring; C. Sidgwick; J. Walker; Miss Mortimer (2); Mrs. K. Vallance.**
- SELLING CLASS (Any other variety except Bantams).—Cock.**—1, Hon. C. Parker. 2, Mrs. J. Pattison, Watlington. 3, T. P. Edwards. 4, Rev. N. J. Ruddy. 5, J. Weston, Aylesbury. 6, G. D. Harrison; S. Elliott, jun.; Miss M. Arnold, Acton; T. Bradbury, Buckingham; H. Brown (2); Miss Mortimer (2); L. Lane; J. P. Poyer; Mrs. J. K. Radford; H. M. Maynard; W. Whitworth, jun.; H. F. Price, Weston-super-Mare; F. Bennett (2). c, W. Dring; C. Sidgwick; J. Walker; Miss Mortimer (2); Mrs. K. Vallance.
- SELLING CLASS (Any other variety except Bantams).—Two Hens.**—1, C. Bloodworth. 2, Miss Mortimer. 3, Rev. W. Serjeantson. 4, J. T. Parker. 5, Hon. C. Parker. 6, Capt. E. Mason; Mrs. C. F. Holmes; J. Hinton; J. Preston; Mrs. J. Pattison; T. F. Upsher, Sutton, Isle of Ely; H. Wilkinson; J. Swan; W. Whitworth, jun.; F. Bennett; Miss E. Browne; J. Robinson; J. Watts. c, A. Silver, Long Melford; W. J. Miles, Brentford; W. Whitworth, jun.; T. Goodwin; Miss E. Williams; J. Long.
- SELLING CLASS (Bantams).—1, G. Hall. 2, M. Leno. 3, H. W. Johnson. 4, E. H. Crabtree. 5, T. W. Anon; J. Bloodworth; J. Mayo; M. Leno; Mrs. G. Hall; H. H. Mosely; J. Walker; Mrs. G. Hall. c, G. B. Francis; H. P. Leech; H. W. Johnson, Beckenham.**
- SELLING CLASS (Any other variety except Bantams).—1, C. Bloodworth. 2, J. Preston, Allerton. 3, Miss E. Browne. 4, H. H. Mosely, Croydon. 5, c, Swan. 6, W. A. Peel; Miss M. Arnold; Mrs. Blay; A. Silver (4); H. Beal; Rev. N. J. Ruddy. 8, D. Young; J. Hinton; Hon. C. Parker; T. F. Upsher (2); Miss Mortimer; W. Whitworth, jun. c, R. Ogley; Mrs. C. F. Holmes; H. Hudson, Clapham, Common; Miss Mortimer; H. Wilkinson; J. Watts; G. J. Leech, Lewes.**
- GAME BANTAMS (Black Red).—Cock.**—1, Cup, and 2, W. F. Addie, Prestor. 3, J. Barlow, Monkwearmouth. 4, W. F. Entwistle, Wyke, Bradford. 5, G. Drayson, Broughton, Preston. 6, H. B. Smith; G. Hall, Kendal (2); W. F. Entwistle; W. Boutecher, Notting Hill.
- GAME BANTAMS (Black Red).—Hen.**—1, Cup, and 3, W. F. Entwistle. 2, F. Swift. 4, A. Darby. 5, E. Newbitt, Epworth. 6, H. P. Leech, Woolpit; C. W. Wetherall, Loddington. 7, W. Adams, Ipswich.
- GAME BANTAMS (Brown Red).—Cock.**—1 and 2, T. Barker, Buryale. 3, W. F. Entwistle.
- GAME BANTAMS (Brown Red).—Hen.**—1, G. F. Ward. 2 and 3, W. F. Entwistle. 4, G. F. Ward. 5, W. F. Entwistle. 6, W. F. Entwistle. 7, W. F. Entwistle. 8, W. F. Entwistle. 9, W. F. Entwistle. 10, W. F. Entwistle. 11, W. F. Entwistle. 12, W. F. Entwistle. 13, W. F. Entwistle. 14, W. F. Entwistle. 15, W. F. Entwistle. 16, W. F. Entwistle. 17, W. F. Entwistle. 18, W. F. Entwistle. 19, W. F. Entwistle. 20, W. F. Entwistle. 21, W. F. Entwistle. 22, W. F. Entwistle. 23, W. F. Entwistle. 24, W. F. Entwistle. 25, W. F. Entwistle. 26, W. F. Entwistle. 27, W. F. Entwistle. 28, W. F. Entwistle. 29, W. F. Entwistle. 30, W. F. Entwistle. 31, W. F. Entwistle. 32, W. F. Entwistle. 33, W. F. Entwistle. 34, W. F. Entwistle. 35, W. F. Entwistle. 36, W. F. Entwistle. 37, W. F. Entwistle. 38, W. F. Entwistle. 39, W. F. Entwistle. 40, W. F. Entwistle. 41, W. F. Entwistle. 42, W. F. Entwistle. 43, W. F. Entwistle. 44, W. F. Entwistle. 45, W. F. Entwistle. 46, W. F. Entwistle. 47, W. F. Entwistle. 48, W. F. 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Kendrick, jun.; F. Warde; F. Lytham, Offchurch, Leamington; R. R. Fowler, Aylesbury.

TURKIES.—*Hen*.—1, F. Warde 2, J. Waller. 3, W. Wykes. *hc*, E. Kendrick, jun.; M. Kew, Market Overton.

PIGEONS.

POUTERS (Blue-pied).—*Cock*.—1 and Cup, N. Hill, Ealing. 2, H. Pratt, Birmingham. 3, *hc*, and c, R. Fulton, New Cross, S.E. *hc*, J. Baker, Kew Bridge.

POUTERS (Black-pied).—*Cock*.—1 and c, F. Gresham, Bedford, Beds. 2, R. W. Bryce, Edinburgh. 3, J. Baker. *hc* and *hc*, R. Fulton.

POUTERS (Red or Yellow-pied).—*Cock*.—1, 2 and 3, R. Fulton. *hc*, M. H. Gill, Farnate, *hc*, J. White, Aberdeen. c, E. Beckwith, Sooderland.

POUTERS (White).—1, C. Martin, Kettering. 2 and 3, R. Fulton. *hc*, H. Pratt, *hc*, F. Gresham, c, M. H. Gill.

POUTERS (Any colour or marking).—*Cock*.—1 and 2, F. Gresham. 3, J. White. *hc* and *hc*, A. Heath, Caine, Wats. c, F. W. Zuhorst, Donnybrook.

POUTERS (Any colour).—*Cock*.—1 and Cup, F. Gresham. 2, M. H. Gill. 3, N. Hill. *hc*, R. Fulton. *hc*, D. Combe, New Cross. c, C. Martin.

POUTERS (Blue-pied).—*Hen*.—1, Cup, and 2, R. Fulton. 3 and *hc*, F. Gresham, *hc*, J. White, c, Rev. W. C. Bullen, Bath.

POUTERS (Black-pied).—1 and *hc*, R. Fulton. 2, E. Beckwith. 3, F. Gresham. *hc*, R. Cant, Brompton Road, S.W.

POUTERS (Red or Yellow-pied).—*Hen*.—1, F. Gresham. 2, H. Pratt. 3, R. H. Blacklock, Sunderland. *hc*, J. White. *hc*, N. Hill. c, J. Baker.

POUTERS (White).—*Hen*.—1 and 2, R. Fulton. 3, J. White. *hc*, Mrs. Ladd, Caine, Wats. *hc*, G. Holway, jag. Strand. c, C. Martin.

POUTERS (Any colour or marking).—*Hen*.—1, F. Gresham. 2, N. Hill. 3, R. Fulton.

POUTERS (Any colour).—*Hen*.—1, Rev. W. C. Bullen. 2, R. Fulton. 3, R. W. Bryce.

POUTERS (Pigmy or Australian).—1 and Cup, R. Fulton. 2, W. B. Tegetmeier, Finchley, N. 3, G. Holloway, jun.

CARRIERS (Black).—*Cock*.—1, Cup, and 2, R. Fulton. 3, J. Thompson, Bingley. *hc*, E. Walker, Leicester. *hc*, R. Pratt, Farnham, S.W.; P. R. Spencer, Hereford. c, J. Montgomery, Belfast.

CARRIERS (Black).—*Hen*.—1, W. G. Hammock, Iford. 2, E. Walker. 3 and *hc*, R. Fulton (2). *hc*, H. Yardley, Birmingham. c, A. J. & W. P. Foites, Iford.

CARRIERS (Dun).—*Cock*.—1 and 3, R. Fulton. 2, W. G. Hammock. *hc*, H. Heritage, Mortlake. *hc*, J. Montgomery; K. Fulton. c, J. Montgomery (2); E. Walker.

CARRIERS (Dun).—*Hen*.—1, Cup, and 3, R. Fulton. 2, H. Jacob, Sandown, I.W. *hc*, W. G. Hamcock, 3, B. Bader, Farnham; R. Fulton; T. Chambers, Northampton. *hc*, W. Siddons, sen., Birmingham; J. Montgomery.

CARRIERS (Any other colour).—*Cock*.—1, R. Cant. 2, R. Fulton. 3, W. Siddons, sen. *hc*, R. Layze, jun., W. doford Green; Col. F. C. Hassard.

CARRIERS (Any other variety).—*Hen*.—1, E. C. Stretch, Ormskirk. 2 and *hc*, R. Cant. 3, E. T. Dew, Weston-super-Mare.

CARRIERS (Black).—*Cock*.—Bred in 1874—1 and Cup, R. Fulton. 2, H. Heritage. 3, W. Fulmer, Spalding. 4, W. Siddons, sen. *hc*, R. Fulton; E. Walker; W. Siddons, sen. *hc*, E. Stocker, E. Wardworth.

CARRIERS (Black).—*Hen*.—Bred in 1874—1 and Cup, H. Allsop, Birmingham. 2, S. Warrell, Spalding. 3, R. Cant. *hc*, W. Fulmer. *hc*, W. Massey, Spalding; C. H. Clarke, Nottingham; R. Fulton; E. Walker.

CARRIERS (Dun).—*Cock*.—Bred in 1874—1, W. G. Hammock. 2, Col. F. C. Hassard. 3, H. Heritage. 4, J. Montgomery. *hc*, W. G. Hamcock. *hc*, W. Quickfall, Shanklin, Isle of Wight; F. W. Metcalfe, Cambridge; W. Siddons, sen.; R. Fulton.

CARRIERS (Dun).—*Hen*.—Bred in 1874—1, F. W. Metcalfe. 2, H. Jacob. 3, A. Bilyeard, Nottingham. *hc*, Col. F. C. Hassard. *hc*, R. Fulton. c, W. Minson, St. Ives.

CARRIERS (Blue).—*Cock*.—Bred in 1874—1 and Cup, W. G. Hammock. 2, F. W. Metcalfe. 3, R. Cant.

CARRIERS (Blue).—*Hen*.—Bred in 1874—1, J. C. Ord, Pimlico, S.W. 2, W. G. Hammock. 3, E. C. Stretch. *hc*, F. W. Metcalfe.

CARRIERS (Any age or colour).—1, C. Cork, New Shoreham. 2, R. Payne, jun. 3, R. Pratt.

DRAGONS (Blue).—*Single Bird*.—1 and Cup, F. Graham, Birkenhead. 2, J. Holland, Manchester. 3, W. Smith, Liverpool. *hc*, F. Graham; W. Smith; J. Holland (2); W. H. L. Macester. *hc*, F. Brand, Bidford; W. Smith; W. Bishop, Dorchester; W. H. Mitchell, Birmingham (2); W. Gamon, Chester; W. B. Tegetmeier (2).

DRAGONS (Silver, black bars).—*Single Bird*.—1 and Cup, F. Graham. 2, W. Smith. 3, W. J. Holland. *hc*, J. Philpott, Lapham; S. J. F. Graham; K. Fulton. *hc*, H. Bagnall, Islington, N.; K. E. Dunn; F. Graham (2).

DRAGONS (Silver, Brown Bars).—*Single Bird*.—1 and Cup, A. C. Allaway, North Shields. 2, S. Chiff, Nantwich. 3 and *hc*, W. Bishop.

DRAGONS (Red or Yellow).—*Single Bird*.—1 and Cup, F. Graham. 2 and 3, S. C. Betty. *hc*, E. C. Betty (2); R. Fulton; W. Andrews, Camden Town. *hc*, L. Whitehead, Drury Lane, W. C.; F. Graham.

DRAGONS (White or any other colour).—*Single Bird*.—1 and Cup, W. Bishop. 2, F. Graham (2); J. Philpott. *hc*, J. Dunn; Durham; F. Graham; A. Preston, Rochester; J. Philpott; W. Vernon, North Bow, E.; L. Whitehead.

DRAGONS (Any colour).—*Young*.—1 and 3, F. Graham. 2, J. Holland. Equal 2, W. B. Tegetmeier. *hc*, D. Barnett, East Brixton; J. Holland (2); F. Graham; W. H. Mitchell. *hc*, W. B. Tegetmeier; W. Hill.

TUMBLERS (Almond).—*Cock*.—1 and Cup, R. Fulton. 2, T. Hallam, Birmingham. 3, H. Yarley. *hc*, T. Hallam; R. Fulton; J. Ford, Monkwell Street.

TUMBLERS (Almond).—*Hen*.—1 and 2, R. Fulton. 3, T. Hallam. *hc*, J. Baker; F. Fulton. *hc*, J. Ford.

TUMBLERS (Almond).—*Single Bird*.—1 and Cup, D. Combe. 2 and *hc*, T. Hallam. 3, J. Ford. *hc*, T. W. Mills, Walsall; J. Ford.

TUMBLERS (Bald or Eared).—*Cock or Hen*.—1, Cup, and 3, W. Woodhouse, King's Lynn. 2, J. Ford. *hc*, W. Woodhouse; J. Ford. *hc*, H. W. Hale, Hackney; E. Burchett, Croydon; W. Woodhouse.

TUMBLERS (Any other variety).—*Cock*.—1, W. G. Hammock. 2, J. Baker. 3, R. Cant. *hc*, J. Hallam (2); J. Ford. *hc*, H. Heritage; J. Ford; H. Verdon, Liverpool; J. Baker; R. Fulton.

TUMBLERS (Any other variety).—*Hen*.—1, T. Hallam. 2, E. Beckwith. 3, H. Heritage. *hc*, H. Heritage; R. Fulton (2); J. Ford; E. Beckwith.

BARDS (Black or Dun).—*Cock*.—1, Cup, and 3, R. Fulton. 2, J. Firth, Derbyshire. *hc*, Capt. H. Heaton, Manchester; P. H. Jones; J. Firth; H. M. Maynard, Ryde, Isle of Wight; W. A. P. Montgomery, Belfast. *hc*, W. A. P. Montgomery.

BARDS (Black or Dun).—*Hen*.—1, Capt. H. Heaton. 2, H. M. Maynard, 3, J. Firth.

BARDS (Any other colour).—*Cock*.—1 and 3, R. W. Bryce. 2, W. A. P. Montgomery. *hc*, J. Firth (2); R. Fulton; J. Baker.

BARDS (Any other colour).—*Hen*.—1, R. W. Bryce. 2, H. Yardley. 3, Capt. H. Heaton. *hc*, J. Baker. *hc*, E. V. Brander, Sutton (2).

BARDS (Black or Dun).—*Cock or Hen*.—1 and Cup, R. W. Bryce. 2 and 4, Major J. H. Craver, Southampton. 3, J. Firth. *hc*, Capt. H. Heaton; J. Firth; W. A. P. Montgomery.

BARDS (Any other colour).—*Cock or Hen*.—1, R. W. Bryce. 2, P. H. Jones. 3, Capt. H. Heaton. *hc*, W. A. P. Montgomery.

JACOBS (Red or Yellow).—*Single Bird*.—1 and Cup, R. Fulton. 2, W. E. Easton, Hull. 3, R. W. Bryce. *hc*, D. Combe; R. W. Richardson, Beverley; J. Baker; W. Hill.

JACOBS (Any other colour).—*Single Bird*.—1 and Cup, R. Fulton. 2, G. Hardy, Shepherd's Bush. 3, A. A. Vander Meersch, Tooting. *hc*, G. Hardy; J. Frame, Colmer, Co. Down (2). c, R. Fulton; A. A. Vander Meersch.

FANTAILS.—*Single Bird*.—1 and Cup, E. A. Seale, Dublin. 2, Rev. W. Serjeantson, Shrewsbury. 3, H. M. Maynard. *hc*, E. A. Seale (2); E. Beckwith. *hc*, Rev. W. Serjeantson; J. F. Loversidge, Newark; N. Hill; Q. Bluhm, Manchester; H. M. Maynard.

SWISS.—*Single Bird*.—1, 2 and 3, W. Croft, Ripley. *hc*, W. E. Easton; Rev. A. G. Brooke, Shrewsbury; W. Croft; A. A. Vander Meersch.

TRUMPETERS.—*Single Bird*.—1 and A. A. Vander Meersch. 2, J. Lederer, Liverpool. 3, R. Fulton. *hc*, J. Lederer (2). R. Fulton.

OWLS (English).—*Single Bird*.—1 and Cup, J. Gardner, Preston. 2, T. W. Townsend, Bowdon. 3, J. L. Smith, Farnstaple. *hc*, A. N. Dodds, North Shields; E. W. Van Den Sander, Shepherd's Bush; P. H. Jones; Ward & Rhodes, Otley; H. Yardley. *hc*, H. Verdon; W. Hill.

OWLS (Foreign).—*Single Bird*.—1, Cup, and 3, L. Allen, London. 2, T. W. Townsend.

TURBITS (Blue and Silver).—*Single Bird*.—1 and Cup, E. T. Dew. Equal 2, G. Hardy; W. Croft. 3, G. H. Gregory, Taunton. *hc*, J. Baker (2); P. H. Jones; W. Croft (3); E. T. Dew; G. Hardy. *hc*, P. H. Jones; O. E. Creswell, Bagshot; W. Croft.

TURBITS (Any other colour).—*Single Bird*.—1 and Cup, S. Salter, Oxford. 2, O. E. Creswell. 3, G. A. Grafer, Wallington. *hc*, E. A. Seale; G. Roper, Croydon (2); P. H. Jones; J. Blanchard, Great Driffield; T. W. Townsend; W. Croft (2); J. G. Orr, Bath, N.B.; S. Salter. *hc*, A. A. Vander Meersch; W. Croft.

MAGPIES.—*Single Bird*.—1 and Cup, W. P. Stevenson, Tooting. 2, C. G. Hitchcock, Oxford. 3, H. A. Roper, Croydon. *hc*, H. A. Roper; J. T. Herbert, Fitzroy Square, W.; P. H. Jones, M. Ord, Durham; J. B. Bowdon, Blackburn; J. Watts, Birmingham. *hc*, C. G. Hitchcock; P. H. Jones; T. Randall, Guildford; J. Baker; J. B. Bowdon.

RUNTS.—*Single Bird*.—1 and 2, T. D. Green, Saffron Walden. 3, A. A. Vander Meersch. *hc*, J. S. Price, Finchley (2).

TUMBLERS (Flyjog, not Short-faced).—*Single Bird*.—1, J. Ford. 2, R. Fulton. 2, W. Hill. *hc*, J. G. Orr.

ANTWERPS (Short faced).—*Single Bird*.—1, J. W. Ludlow, Birmingham. 2, J. T. Theobald, Lower Tooting. 3, A. Cleaver, Croydon. *hc*, W. Slater, Birmingham; J. Gardner; J. Mantel, Newport Pagnell; W. Gamon (2); J. W. Ludlow; A. Kitching, Manchester; W. Hill.

ANTWERPS (Homing).—*Pair*.—1, W. B. Tegetmeier. 2, J. Lister, Keighley. 3, J. Robertsshaw, Bradford. 4, Capt. G. Edwards, Kensington, W. *hc*, J. Robertsshaw; A. N. Dodds; A. Bentley, Rickmanworth; F. Lubbock, Barnet; E. F. Wilson, Brighton (2). c, J. D. Russ, Camberwell, S.E.; Capt. G. Edwards.

ANY OTHER VARIETY.—*Pair*.—1, R. Barclay, Regent. 2, A. & W. H. Silvester, Sheffield. 3, L. Allen. *hc*, J. W. Ludlow (2); H. Yardley; A. A. Vander Meersch.

HELM CLASS.—*Single Bird*.—1, J. Ford. 2, P. H. Jones. 3, J. Bowea, Heme Bay. 4, P. K. Spencer. *hc*, J. Ford; Mrs. Dressing, Fareham. *hc*, P. H. Jones (2); H. Heritage (2); G. J. Lecky, Lewes (2); R. Cant.

SELLING CLASS.—*Pair*.—1, J. Osborn, Northampton. 2, H. Heritage. 3, C. Cork. *hc*, J. S. Price; G. Murphy, Camberwell, S.E.; W. Nottage, Northampton; B. W. Peck, Sydenham Hill; K. Barclay (2); Hon. E. Digby, Belgrave Square, S.W. (3).

COLLECTION OF FOUR PAIRS (Exclusive of Carriers, Pouters, and Tumblers).—1, Cup, and 2, R. Fulton. 3, J. Baker. *hc*, S. A. Wylie, East moulsey. *hc*, F. Brand.

SPECIAL FLYING CLASS OF HOMING ANTWERPS.—*Single Bird*.—1 and Cup, F. Lubbock. 2, Co. F. C. Hassard. 3, W. B. Tegetmeier. 4, P. J. Cheffins, Dunmow. 5, F. G. Russell, Blackbath. 6, S. Clarke, Camberwell, S.E. *hc*, W. H. Gurney, Woodworth Common, S.W.; G. Cotton, Sunningdale. *hc*, F. Lubbock; W. B. Tegetmeier; Col. F. C. Hassard (2); G. Cotton; P. J. Cheffins; G. H. Fitzherbert, Sevenoaks. c, S. Le B. Smith, Sydenham; F. Lubbock; J. T. Theobald; Mrs. Vigor, Exbridge.

RABBITS.

LOP-EARED (Self-coloured).—*Buck or Doe*.—1, W. Tomlinson, Stratford. 2, T. Myton, Udgate. 3, A. Steadman, Oxley. *hc*, Dr. Boden, West Hartlepool; T. Atkinson, Greenwich.

LOP-EARED (Tortoiseshell).—*Buck or Doe*.—1, J. Irving, Blackburn. 2, F. S. Banks, Doughty Street, W. C. 3, Dr. Boden. *hc*, Mrs. H. Rickworth, Spalding; C. King, St. John's Wood. *hc*, J. Cranch, St. John's Wood.

LOP-EARED (Yellow and White).—*Buck or Doe*.—1, J. Vartov, York. 2, J. Quick, Bryanstone Square, W. 3, F. S. Banks. *hc*, F. Loveband, Edgware Road, W.

LOP-EARED (Any other colour).—*Buck or Doe*.—1 and Cup, F. S. Banks. 2, J. Cranch. 3, T. Schofield, jun., Manchester. *hc*, J. Cranch; F. S. Banks. *hc*, W. H. Bacon, Sheffield; W. Andrews.

SILVER-GRAY.—*Buck or Doe*.—1 and Cup, Miss Mortimer, Ross. 2, S. Ball, Bradford. 3, R. H. Giew, Wakefield. *hc*, W. H. Hauds; E. S. Smith, Boston. *hc*, Miss Mortimer; E. Loveband.

HIMALAYAN.—*Buck or Doe*.—1, C. G. Mason, Rochdale. 2, S. Ball, Bradford. 3, J. Abbott, Northampton. *hc*, E. W. Bunny, Lewes. *hc*, W. W. Dove, Lower Norwood; J. Hallas, Huddersfield (2).

ANGORA.—*Buck or Doe*.—1, H. Swetnam, Fulford. 2, J. Martin, Kettering. 3, S. Ball. *hc*, E. V. Brander; W. Gladby, York. *hc*, W. Bowes, Darlington.

IRISH HARE.—*Buck or Doe*.—1, J. T. Bullett, jun., Richmond. 2, J. Hallas, 3, R. J. Foster, Ipswich.

DOVE.—1 and Cup, E. S. Sabbage, Northampton. 2, A. Lund, York. 3, B. Bidds, Newbury. *hc*, J. J. Martin, Kettering.

SKILLING CLASS.—1, F. Purser, Bedford. 2, E. V. Brander. 3, J. Wharton. *hc*, E. V. Brander; C. King. *hc*, W. J. King, Islington Green; H. H. Mosley, Croydon. c, Mrs. C. Hill, Aiton; A. Steadman.

JUDGES.—*Poultry*: Mr. J. Dixon, Capt. Heaton, Mr. E. Hewitt, Mr. J. H. Smith, Mr. R. Teebay, Mr. W. B. Tegetmeier, Col. Stuart Wortley. *Pigeons*: Mr. E. Corker, Mr. F. Esquilant, Mr. J. Montgomery, Mr. J. Percival, Mr. M. Stuart. *Rabbits*: Mr. J. Boyle, Mr. J. Hume.

GREAT YARMOUTH POULTRY SHOW.—The prizes are liberal in all the classes for poultry, Pigeons, and Canaries. In addition there are forty silver cups, but the great majority can be won only by local exhibitors. In Dorkings all the varieties are in one class, which is a great mistake. Entries close on the 2nd of December.

OUR LETTER BOX.

* * In consequence of the great length to which our reports of the Crystal Palace Show extend, many articles are unavoidably postponed till next week.

DARK BRAHMA'S PLUMAGE (W. P.).—We have examined all the feathers and find none of them perfect. However, we prefer No. 2, advising you to select, if possible, darker feathers in the breast. There is too much white in those you have sent. That which you must look for and endeavour to get are well-pencilled bodies without buff, and pencilled breasts up to the lower bill without white; the hackle distinctly marked and striped. We do not suppose you will get perfection, but knowing what it is, in colour, you may approach it as nearly as you can.

WEEKLY CALENDAR.

Day of Month.	Day of Week.	NOV. 26—DEC. 3, 1874.	Average Tempera- ture near London.			Rain in 43 years.	Sun Rises	Sun Sets.	Moon Rises.	Moon Sets.	Moon's Age.	Clock after Sun.	Day of Year.
			Day.	Night.	Mean.	Days.	m. h.	m. h.	m. h	m. h.	Days.	m. s.	
25	TH	Royal Horticultural Society of Ireland, Hor- [ticultural Show.	47.2	32.9	40.0	23	39 at 7	56 at 3	8 6	15 11	17	12 31	330
27	F		47.0	33.6	40.3	20	40 7	55 3	27 7	after.	18	12 11	331
28	S		48.1	33.9	41.0	22	42 7	55 3	49 8	23 0	19	11 51	332
29	SUN	1 SUNDAY IN ADVENT.	51.3	33.8	42.5	20	43 7	54 3	8 10	49 0	20	11 30	333
30	M	PRINCESS OF WALES BORN, 1844. Royal Horticultural Society, Fruit, Floral, [and General Meeting.	48.0	34.5	41.3	22	45 7	53 3	24 11	4 1	21	11 9	334
1	TU		48.5	34.9	41.7	22	45 7	53 3	morn.	17 1	22	10 46	335
2	W		47.4	33.7	40.5	19	47 7	52 3	35 0	27 1	23	10 23	336

From observations taken near London during forty-three years, the average day temperature of the week is 43.2°; and its night temperature 33.9°. The greatest heat was 62°, on the 1st, 1857; and the lowest cold 14°, on the 30th, 1856. The greatest fall of rain was 1.21 inch.

WINTER CUCUMBERS.

AS a qualification for writing on this subject, allow me to say that since April, 1869, with one exception of a month's duration caused by the failure of the heating apparatus, I have always been able to cut at least six Cucumbers a-week. "Well, then," someone will say, "you can tell us how to cure the Cucumber disease." I am sorry to say I can do nothing of the kind. I have never seen it, and I hope I never shall. It was supposed to be here when I came, and there were some plants that looked very sickly, but they could not have had the disease our lamented friend Mr. Fish was so familiar with, or I should not have got rid of it so easily.

The cause of many people failing to grow Cucumbers and other plants satisfactorily in winter is their strong prejudice against moderate temperatures. Fire heat should only be looked on as a necessary evil. Of the two evils choose the least, and fire heat is just a trifle better than extreme cold. The question then is, What is the lowest temperature in which the Cucumber will exist without injury? The answer I can give is near enough for all practical purposes. 55° is the average minimum temperature aimed at here; during mild nights it is sometimes higher, and in very cold nights it is lower—50°, or even 48° a chance time for an hour or two in the morning. I consider it much safer to allow the temperature to fall thus low for a time than to have the atmosphere as it were burned up. No amount of damping-down can make the air feel genial if there be 50° or 60° of fire heat in addition to the natural temperature, and if the air feel harsh to human beings, plants will not flourish in it, though red spider will. The wonder to me is, not that those who maintain a night temperature of 65° or 70° should occasionally break down after a few weeks' severe weather, but that they ever get through it at all.

A forcing house of any description should always have sufficient piping in it to raise the temperature to the required heat during the most severe weather without driving the fire very hard or making the pipes very hot. For winter Cucumbers a couple or three small pipes under the bed, and covered with rubble, are a great help; the rubble and the soil above it in which the plants are grown do not part with the warmth so quickly on a sudden change of temperature as the rest of the house. Even if by accident the upper portion of the plant is in a much lower temperature for a short time than the one aimed at, provided the roots are comfortable and the top is not actually frozen, no great harm will follow.

I have stated the average minimum temperature—viz., 55°; the average maximum one is not so easy to give. During bright days after frosty nights the range of temperature should not be too great, and it is sometimes extremely difficult to regulate it. Fires, of course, should be stopped as soon as it is safe to stop them. Air should be admitted a little at a time as soon as the temperature

begins to rise, or, if possible, the rising should be anticipated, but never altogether prevented or suddenly checked; and remember the plants are more sensitive than the thermometer. The air should be given all on one side or all at the top, never in two opposite places at once, so as to cause a draught through when there is a great difference between internal and external temperatures. When the sun has been shining an hour or two on the plants they will bear a higher temperature, and generally towards the middle of the day in midwinter the house may be closed altogether. During mild weather at any time of the year I have a little air on all night; and the temperature during continued mild bright weather is allowed to range as high as 95° or 100° in the middle of the day.

As to soil, the simpler the better for Cucumbers as well as everything else. I have it mechanically right, and never trouble about the richness of it nor yet the chemistry. Cucumbers like soil that is light, loose, and sweet. Merely the fibry roots of grass with all the fine soil knocked out of it is what I use; it is broken up in large pieces, and not pressed together in the least. A little finer soil is placed round the roots of the plants when first turned out of their pots. Only a little soil is used at once, and then as soon as the roots come through they are just covered with another thin layer, and this is repeated as long as the plants are kept. Sowings are continually being made in order always to have young plants in stock in case of an accident; but the regular sowing for winter is made in the first week in August. Seeds are placed singly in small pots, and are never allowed to receive a check. If the house is not ready to receive the plants as soon as they commence to make the first rough leaf, they are shifted into larger pots, and kept in vigorous growth till such time as they can be placed in their permanent quarters.

As to sorts, there are so many good ones to choose from, and every grower that is successful thinks he has the best in the world, that it is not necessary to say much on this point. I will merely say, Beware of large-growing kinds, none of them that I am acquainted with is fit to eat, and few of them bear well. It is immaterial whether a variety has a black spine, white spine, or no spine at all, so long as the flavour is good and a large proportion of the fruit is eatable.

The less the plants are mutilated by pinching and cutting the better. One good plant kept growing freely will produce more good Cucumbers than half a dozen stunted ones. Therefore, if the plants get too crowded cut every alternate one gradually away altogether, and encourage the remaining ones to extend. Never stop a shoot if there is space to train it. If there is a want of vigour at any time apply manure water weak and warm; thin the fruits as soon as they can be handled; and keep the male flowers picked clean off.

Red spider seldom makes its appearance while the plants are vigorous, but it is always necessary to keep a sharp look-out for it, for if it is once allowed to gain a footing it is very difficult to get rid of it. A quick eye

will soon detect its first appearance, and it should be diligently hunted after every other day till all danger is over.

If there is any gumming or damping of the stem cut the diseased part clean out, even if you have to cut half through the stem, and scrape some freshly-burned lime, and apply as much as will adhere two or three times with an hour's interval. Lime that has been slaked is of no use, it must be caustic lime.

Mildew is sometimes troublesome when the weather is close and dull. The best cure is flowers of sulphur, and the best way to apply it is to mix it with water, and syringe it on. Place the sulphur in a watering pot with just enough water to form a thick paste, and afterwards add sufficient water to give every leaf in the house a good syringing on both sides. Avoid a stagnant atmosphere and even temperatures for all plants that are subject to mildew.

I am not an advocate for much syringing in winter. My plants are not syringed once a-month; it is not required with a moderate temperature.—WILLIAM TAYLOR.

OUTDOOR GRAPE-GROWING.

I AM of opinion that outdoor Grape-cultivation is lamentably neglected, and a few remarks on the subject may do a little towards awakening people to their own interest, and encouraging many to pay a little more attention to the plant that will in most cases bring a fair return for the trouble taken with it.

It is not uncommon to see the Vine planted against the poor man's cottage with only here and there a tie to keep it to the wall, while in all other respects it is allowed to ramble as it may, making a vigorous growth to be battered about by the wind until it is an unsightly object such as no one can admire, and indicative of a carelessness which few would like to imitate. In many instances the Vine is taken care of, and its branches trained neatly to the wall, the wood carefully stopped and thinned-out, other wood laid-in to succeed that to be taken out at pruning-time, while due attention is paid to thinning the fruit as with hothouse Vines. Attended to in this way it is an ornament to the house it is trained to; for if it is a proper sort, and placed on the right aspect, it must be a bad season indeed if it do not bring some substantial return in the shape of fruit to the person it belongs to. What a difference! I wish there was no reason to picture it in this way. But why is it so? Allowing something for an occasional disappointment in the Vine not ripening fruit in an unfavourable season, or perhaps an insufficient knowledge of its treatment, does not satisfactorily answer the question why we so frequently see the Vine growing against a cottage or on the walls of the amateur's garden, and yet so little done with it. If the fruit is not wanted for home consumption it is easily marketable at the nearest town; and even now in this town every greengrocer's shop has a display of outdoor Grapes, both black and white, which meet with a ready sale, and one dealer told me he wished he could buy more, as his customers were anxious for them. It must be understood that I do not intend to affirm that the Vine can be profitably grown in all parts of the country; the southern counties are perhaps its home, though in Hertfordshire, Buckinghamshire, and some of the adjoining counties, I have seen the Vine produce fairly remunerative crops.

One of the sorts grown appears to be the Black Cluster, a variety with small bunches and berries, and very black. I have a kind here called Miller's Grape, but which I have seen in Sussex bearing the name of Burgundy; its leaves are thickly covered with a white woolly substance, and more especially its young shoots in spring. On referring to a friend about it, he tells me that it is probably Miller's Burgundy. Then in some places the Black Hamburgh is planted, and succeeds well in some seasons. When living at Hawkhurst I saw a Vine of this sort trained up the walls and the lower part of the roof of the house on an eastern aspect, and in 1868 or 1869, I am not quite sure which, more than two or three bunches reached 2 lbs. weight, and quantities 1 lb. and less, the berries being large and very highly coloured. I believe, though the Vine has since produced very good crops, they have not equalled that of the particular year, it being a very hot dry summer. The next sort, and perhaps the best of all to grow, is the White Sweetwater, with which the White or Royal Muscadine is nearly identical; either of these will do well on a wall on a southern or eastern aspect. One in the latter position with me produced three hundred bunches this year, of which two

hundred are now hanging well coloured and developed, as well as being of fine flavour. The wall it is growing on is 15 feet high, and being that of the fruit room the eaves of the latter project enough to form a good coping. This Vine has not been known to fail in bearing a crop. I have seen a good crop on it for three successive seasons. This year the bunches are larger than common, being produced from young wood laid-in last season. The Vine is planted at the centre of the wall, and a branch runs horizontally each way; from these, twenty-four branches are trained perpendicularly at pretty regular distances apart. Each of the upright branches throws out side branches at intervals up to the top; these are formed on the spur system up to the third or fourth year, when a fresh cane is grown to take the place of the one cut out. I think in outdoor Vines it is necessary to be particular about this, for I find that after a shoot reaches four years old the wood becomes weak, and produces small insignificant eyes, the shoots of which produce bunches very little better than tendrils with a few Grapes at the extremity. It might be different to this if outdoor Vines had proper borders made for them the same as for hothouse Vines, and treated in other respects the same. The Vine in question has no preparation whatever for its roots, but is simply growing in the border, which is dug-up and cropped the same as any other part of the garden. It receives one good watering every summer just after the berries are set, but in the spring, when the buds burst into growth, they are protected with hexagon netting till all danger from frost is gone. During this time a disbudding takes place, and again a little later on. After the bunches show themselves the point of the shoot is taken out three joints beyond the bunch; these are carefully nailed to the wall, all superfluous shoots are taken out, leaving only those shoots required to take the place of old wood, the berries are thinned in due time, and all laterals kept pinched back. Beyond this there is nothing more to be done but to see that all is in a healthy state, free from mildew, &c. This disease must be watched for, and immediately it is discerned, if only on a single berry, dust the whole Vine over with sulphur in a moderate way, which will generally stop it.

I do not believe that every Vine will succeed as well as this without some preparation as to soil, for although here the soil is good enough, it is not so at every place; and where it is bad, or in a low damp situation, drain the place a little to carry off stagnant water, and get together a small heap of good garden soil, not very rich, to plant the Vine in, and add to it yearly as the Vine grows and requires it. The aim should be to induce the Vine to make a moderate growth with no pithy coarse shoots, but such wood as will ripen well and prove fruitful. Induce the wood to ripen early, and keep it all nailed close to the wall, but exposed as much as possible to the sun at all times. Never allow the growth to become thick and matted; cutting out a quantity at a time is very injurious to any Vine, especially an outdoor one, and causes a great check, such as it will not easily get the better of in one season. Always pay strict attention to stopping and disbudding in the early part of the season, and that will avert all such ill effects as stated above.—THOMAS RECORD.

SKELETONISING LEAVES AND OTHER PARTS OF PLANTS.

The present is a favourable time of the year for skeletonising, woody fibre being sufficiently hard. Procure an earthen pan holding a gallon or more, and put into it a quantity of leaves, seed vessels, &c., selected according to the subsequent directions. Pour upon them sufficient boiling soft water to cover them. This done, place the pan upon any place exposed to the warmth of the sun and the vicissitudes of the weather. Stir the leaves occasionally, say once or twice a-week, and carefully, but never change the water. The putrefactive fermentation will now soon ensue, and in about six weeks or two months, according to the nature of the subjects, many of the specimens will be completely macerated, and will require no other attention than holding them singly under the tap of a waterbutt or other small stream of water, which will wash away all the other skin and green fleshy matter. If this matter do not come off readily when assisted a little with the thumb and finger or a small knife, the leaves must be soaked for a longer time. Those of the leaves which seem liable to break during the washing may be preserved from breaking by placing them upon a little piece of board and holding them up by the thumb and finger; and should a little of the green fleshy matter re-

main fixed between the interstices of the skeleton leaf it may easily be removed by striking the leaf perpendicularly with a clothes-brush. They will now only require bleaching; this may be done very effectually by placing them in a handbox with a small vessel beside or under them.—J. H., *Gardener to Lady Caroline Legge, Keston, Kent.*

CROCUSES WITH GERANIUMS.

In reply to inquiries respecting the statement in this Journal, November 5th, of the growth of Geraniums in beds which produce Crocuses annually, and which are never removed, or rather for nine years have been undisturbed, no over-luxuriant growth of foliage in the Geranium has yet been observed, and the blooming has been all that could be desired. The wet year (two years ago) most Geraniums suffered from the cold and excess of wet, but mine were quite equal to any I saw in the district, and no perceptible difference was there in the beds that had been dug in the usual course. Those beds have the manure applied every autumn on the surface and grow Tulips; therefore it is fully twelve months on the surface before the taking-up of the Tulip bulbs commences, at which time the ground is generally dug.

It is a matter easily governed whenever overgrowth of foliage occurs, for it only needs leaving the beds for one year unmanured; but my opinion is that such a circumstance will never occur, as the two crops, Crocuses and Geraniums, are both exhausting crops, and need all the support, especially the former, that can in reason be given. At present (mid-November), my beds have got on their winter coat of manure as usual, and the Tulips are all planted, being treated the same. Occasional Crocuses were seen springing before the manurial application, and now they are thoroughly protected from the frost whenever it comes.

You ask whether the Geranium blooms better in the beds dug in the usual way. There is little difference, but in an ordinarily fine summer the undug beds produced the earliest and largest blooms. Certainly they bear drought much better.—**YORKSHIRE.**

AURICULAS.—No. 3.

I TRUST that a few words more upon these flowers will not be thought too much of one thing at a time. Perhaps this third issue of notes may seem like a gleaning of Grapes when the vintage is done; but I have purposely left out so far a notice of some desirable Auriculas, especially in green edges, in order that the leading flowers, kept a little apart, might stand out the more conspicuously, like winners at an exhibition from among the mass of competitors passed by. Moreover, intending growers of the Auricula are making eager inquiries, wisely of course seeking the best flowers. Some of these, however, money is valueless to buy, and others it will be a work of time and patience to obtain from the few growers who will sell. It must be a great discouragement to a beginner to find that, with all the heart to take a flower up, he cannot procure the plants. I would therefore hope that a brief mention of some fair and more plentiful sorts may in some degree be useful. They shall be kinds which certainly have their beauties and their points of merit, which are grown as florists' flowers, and will sometimes compete with those of greater fame—sorts which a beginner may hope to obtain without much difficulty, and with which he will be well contented through the less-exacting days of his early love until, like some of us, he has worked his slow way to the possession of the worthiest, and become old, accustomed, and severe. And while yet a "colt" (expressive Lancashire for a young hand), let him put himself in the way of the National Auricula Society's April Show in Manchester, of which the pages of the Journal will give due notice. Among the many growers gathered there, there is a good chance of meeting some who may have plants either to exchange or part with; and I hardly need to add that it is always a wise thing to bravely face the best flowers although we possess them not ourselves, and may go home again a little out of conceit with our own.

Among green edges are two which are not common, and are well worth having—Pollitt's Highland Boy, and Trail's Rev. George Jeans. The former is a true green edge with reddish chocolate ground colour, a very neat and good flower, though the pip would be considered small. The latter has a round flat pip; sepals beaded on the rim with meal that sometimes trespasses across the light green edge; body colour pretty

light lilac. Very "chancy." Beeston's Apollo, a great breeder, is one of the accessible sorts. Pip not large, often "mouse-eared;" edge fine full green; body pure and black; paste good; not a large trusser, and always blooming in autumn. Campbell's Lord Palmerston is another easy kind, "not unlike a bad Booth's Freedom," as a keen critic, "Iora" (Rev. G. Jeans), used to say. Admiral Napier is out of the same seed-batch, a pod-fellow probably, and not so lasting in the bloom through growing out of form. Ollier's Lady Ann Wilbraham is common, but a good flower, though the cheapest; petal more or less pointed; edge dark green, not always pure, and faithfully perverse in autumn-blooming. Gain's Lady Richardson is distinct; edge glaucous, like "green tea," not always pure; flower lively, and when in character altogether very fair. Lightbody's Fairy Queen, green edge, with red or maroon body colour; not constant to purity of edge, but tube fine yellow; paste and ground colour correct; good increaser. Trail's Napoleon is another red-grounded green edge; petal broad and edge sufficient, and of a dull, dead, dry green. Morris's Green Hen and Simpson's Commander have edges pure, but the petals are generally pointed, particularly in the last named. Like the two first on this list, they are not common sorts, neither is Lightbody's Inkerman, which is often a bold, dashing, taking black ground with me. I wish I could say something definite about Trail's George Lightbody; but with me the plants have the tiresome habit of blooming small heads from small hearts, which afterwards split up into several; so I have not yet had a strong bloom from it. Edge and colour are very good; tube too large; paste good. Lovely Ann comes at times green-edged, and is plentiful. So, too, is Imperator of my first list. General Neill is plentiful also, and a good flower when pure. I think among these I shall have named some green edges that might be much more readily obtained than the champion few, and which I grow for the sake of variety.

In grey edges Robert Trail is a free and abundant sort. It is often also white-edged, and no Auricula has a richer golden tube or greater brilliancy throughout. The flower is small, and, worse still, has often a cramped appearance because of the comparative narrowness of colour and edge. The plant is of inordinate size, like a Cos Lettuce, and the best blooms come from moderate maiden plants. Jeffrey's Sir II. Have-lock is at times a good flower, often rough on petal edge; Smith's Lycurgus too uncertain; edge undecided, body rich black and too broad. Trail's Mayflower, in habit rather like Lovely Ann, is a bright flower; and Simpson's May Morning will do sometimes. Lightbody's 125 is a beautiful violet, ground grey or white, but a very bad plant-maker, always splitting-up. This and Walker's Peveril of the Peak are the only difficult ones to get of those I now name. Peveril can be a very fine black-ground flower, but it remains to be seen whether it is very constant. Smith's Britannia, a violet ground; Reade's Miss Gidding, and Lightbody's Robert, maroon grounds, are prolific kinds, but apt to come wild.

In white edges I have not much to add beyond apologising for the oversight of two or three flowers I should have noticed before. Taylor's Incomparable, though it is inferior to his Glory, is worth growing, but the ground colour, a dark walnut, is too broad. Aslton's Bonny Lass is a bonny sort, true edge, and violet body colour; Trail's Beauty not always white enough, or the edge is nevertheless pretty; body black. I do not think any of the white edges so easy to meet with as the other classes; and Taylor's Glory, Favourite, Incomparable, Smiling Beauty, Bright Venus, Ne Plus Ultra (Smith's) Countess of Wilton, Regular, Lady Sale, and Trail's Beauty, decidedly difficult. The rest might be much less so.

In selfs I am very sorry I overlooked the claims of Mrs. Sturrock, a clarety maroon, for fifteen years ago she was our best self, and stands very high yet. A great number among seedlings turn out to be selfs, so we shall both hope to raise some grand ones, and be able to be very strict over the failings common to this lovely class.

In concluding these notes I have only to express my regret that the Auricula is yet so rare, and that some may read these brief descriptions and wish to test them for themselves, and be tantalised to find the flower almost beyond their reach. But it is coming round again in a few careful hands, and will be more and more seen. But it is not on the exhibition table that the Auricula looks its best. With the exception of the groups in the pans the flowers are not arranged to best advantage. The single classes stand in masses of green, grey, and white-edged flowers, unrelieved, for the sake of easier judging, and there has been no time to re-arrange them in the

best order for the visitors. After all the Auricula is a home flower, sweetest and prettiest in the Violet-like retirement of its cool shelter, each plant arranged in no rivalry to its lovely companions, but blooming for its own sake and for theirs, and placed so as to help out as well the beauties of the others as its own. I know the excitement of the exhibition morning to be a peculiarly happy and innocent pleasure, and that the hastening into the room for a first look after the irrevocable judgments are passed is rare enjoyment. But on the whole I think some of us would say that the long quiet pleasures of the gradually-expanding and closing show at home are most largely the object, and the richest rewarding of our care.—F. D. HORNER, *Kirkby Malzeard, Ripon.*

ELECTIONS OF FRUITS.

I am sure all the readers of the Journal feel grateful to Mr. J. Hinton for his industry in providing for the public the Rose Election which has lately appeared in your pages, and those who have derived benefit and instruction from it will be of opinion that there is no reason why the queen of flowers should monopolise these tables of excellence. Pears and Apples are objects of interest to everyone, and the latter, as Mr. Rivers truly remarks, "are the fruits of the people, almost a necessary of life;" and if any one of your experienced correspondents would undertake the labour of obtaining from reliable authorities lists arranged (by the senders and according to their opinion) in order of merit, of the best, say, twenty-four kinds of Pears, and the like number of Apples, and afterwards himself arrange the fruits according to the number of votes given for each, he would be conferring a great boon on fruit-growers and on nurserymen also.

Many will feel disposed to doubt whether it would benefit nurserymen, but I believe it would, and I ground my opinion on the fact that when you send an order for trees, and leave the choice of seeds to them, they charge less than when you make your own selection. The reason clearly appears to be, that growers for sale cultivate in extra quantities the varieties of fruits which they find combine the greatest number of good qualities. For instance, Cox's Orange Pippin Apple bears well, is free from canker, hardy, high-flavoured, and a good keeper; consequently a large stock of it is grown. On the other hand Cornish Gilliflower, although to my taste the best-flavoured of Apples, is an awkward grower (the spurs being so far apart), apt to canker, the fruit liable to crack, a bad bearer, and therefore scarcely worthy of cultivation. The nurseryman in his catalogue has neither time nor space to mention these idiosyncrasies, and describes the latter as "large, flesh rich, firm, and perfumed, one of the best dessert Apples." Of course this merely applies to the fruit, and so far is perfectly correct. The enthusiastic novice reads this description, is charmed, and at once makes a memorandum, "Cornish Gilliflower to be ordered," so that the cultivator for sale is bound to keep these unprofitable varieties in stock. I think this will convince everyone the election will be generally beneficial.

Lastly, as the circumstances of climate, soil, and situation have more effect on fruit than flowers, I would suggest that after the election is published and the votes summed-up, the contributors of the lists give us their experience of the kinds they recommend, and state the nature of the soils on which their results are obtained. I know a village near here, the orchards in the upper part of which produce some of the finest cider in Herefordshire, while the cider made from fruit grown not a half of mile distant is scarcely drinkable.

It may be said that as I am so ardent in the matter no person is more fit to undertake the task proposed. To this I answer—First, I have not the necessary time; and secondly, my knowledge of the subject is not sufficient to warrant my undertaking it, and it is a pity that success should be spoiled by—AN IGNORAMUS.

GARDEN LABELS.

CAN you or any of your readers inform me as to the best and most enduring kind of labels? It adds considerably to the interest of having good collections of Roses and other things if you and your friends can readily learn the name of each.

Here we have the names of various fruit trees, &c., written with a pencil on a wooden label painted white. In my experience these do not last longer than two years. Then we tried metallic labels, writing the names with some kind of

indehible ink; but the ink has sadly belied its name, and after a couple of years they, too, are useless. We have some Peach trees in pots, with their names stamped on lead plates. These are really good, but they were, I think, specially prepared, and were too expensive to be largely used. It seems to me that a label with a large, clear, distinct lettering on white crockery might be a good permanent one. Arms and mottoes are often put on dinner crockery and on children's mugs. Has something of this kind ever been tried for garden labels? It might not pay for any private individual to order a few of each of a large number of Roses, &c.; but it might pay some manufacturers of crockery to prepare and sell labels for Gloire de Dijon and La France by the thousand. If they could be sold at a penny a-piece they would command an immense sale. Were any of our large nurserymen to order them in large quantities, and send them out with the plants ordered, it would be a considerable boon to their customers.—AN AMATEUR, *Fifeshire.*

FRINGED PELARGONIUMS.

I REMEMBER, on seeing the good old variety Dr. André for the first time, shortly after its introduction, saying, For elegance such a class of Geraniums would totally eclipse the smooth-petalled section. From the number of new fringed varieties recently introduced it would appear that such is about to take place; at all events I rejoice to think that the fringed class is becoming more numerous every year.

The kind that has done best with me is *Empress*; and as I find that it succeeds best with a treatment different from that under which all other varieties which I have grown do, I wish to give your readers the history of an old plant, still flourishing, in my possession. It will be three years next spring since I purchased a plant of *Empress*—a young plant full of life and vigour, and although sent in a very small box through the post, it did remarkably well that season, blooming the whole summer through. In the autumn, however, I committed what I consider to be a mistake in the case of this variety, and that was, I cut it down along with all the other kinds in my collection; for while they were remarkably fine the next season, *Empress* was stunted in growth, and did not flower nearly so freely as it had previously, and has, with different treatment, since done.

With care I got it into a healthy growth before winter without cutting the plant down, and by Christmas it had commenced showing its flower buds, and was in bloom in April without any artificial heat whatever, none being necessary for the preservation of conservatory plants last winter. I counted as many as thirty-nine trusses of bloom and flower buds on this plant at one time, and it continued one mass of bloom up to the end of July last, after which it commenced to throw out a vigorous new growth, without any cutting-down except the mere tops on which the flower stalks were; after which I took the plants out of the pot, reduced the ball so that I could introduce it into the same pot with about 2 inches of fresh soil all round the portion of the ball I left, and by this process the plant never received the least apparent check, and is at the present time making vigorous growth, in appearance similar to what it was at the same period last year, only much larger, yet compact and bushy. All other plants of this sort that I have seen, with the exception of one other, a very fine plant, which I observed had not been cut down, were treated in the ordinary way, and were miserable stiff plants struggling for existence, and the complaint of everyone who grows it is that it does not succeed with them.—R. B. THOMPSON, *Londonderry.*

LAYING OUT A SMALL TOWN GARDEN.

IN a letter received from "J. E. W." he says, "I have a small garden, at present a desolate waste of rank blotchy grass, and with borders of straggling Nasturtiums, which I wish to convert into a more pleasing object." There are doubtless hundreds of similar cases where advice would be valued, and the following notes are communicated with the view of assisting such. "J. E. W.'s" garden is in London, which fact implies a murky smoke-laden atmosphere and the probability of an almost barren soil; for when any of the numerous building companies or private speculators obtain possession of a plot of land, the one great end and aim of all their measures is profit, and therefore before the "desirable freehold" or "elegant semi-detached villa" is announced every yard of soil that is at all rich or fertile is removed and sold to the ready purchasers

that abound both in and around the metropolis. When this has been done it is a mockery to term an enclosure upon any part of it a garden, which then could only become a reality by the tenant accumulating enough good soil and manure to cover the barren surface a few inches deep.

Premising, however, that the garden in question has a tolerable depth of fertile soil, we will first of all proceed to trench and level it. Trenching is so called from the soil and subsoil being broken up so deeply that an open and somewhat wide trench has to be maintained throughout the work in order to facilitate the breaking-up of the subsoil. The first trench is formed by taking a strip of soil 9 inches deep and about twice as wide from one extremity of the garden and conveying it to the other; the portion of under or subsoil so laid bare is then lifted and chopped to pieces with a fork or spade. It is not

taken away, but remaining in the same position is covered with the soil taken from the next strip; by doing which another portion of subsoil is cleared ready for stirring, and so it continues to the end. The importance of this as a primary measure cannot be too strongly enforced. It is so for all gardens, but more especially for those of such limited extent that every inch of space is precious. It not only opens up the soil to the beneficial influence of the air, but also reduces the whole of it to one uniform condition, and that portion of it which afterwards may be required for paths may then be covered with the necessary hard material and yet serve to nourish the roots of trees.

In the laying-out particular care must be taken to economise space and to render it as attractive as possible. To this end we will not cover any portion of it with turf, and so avoid

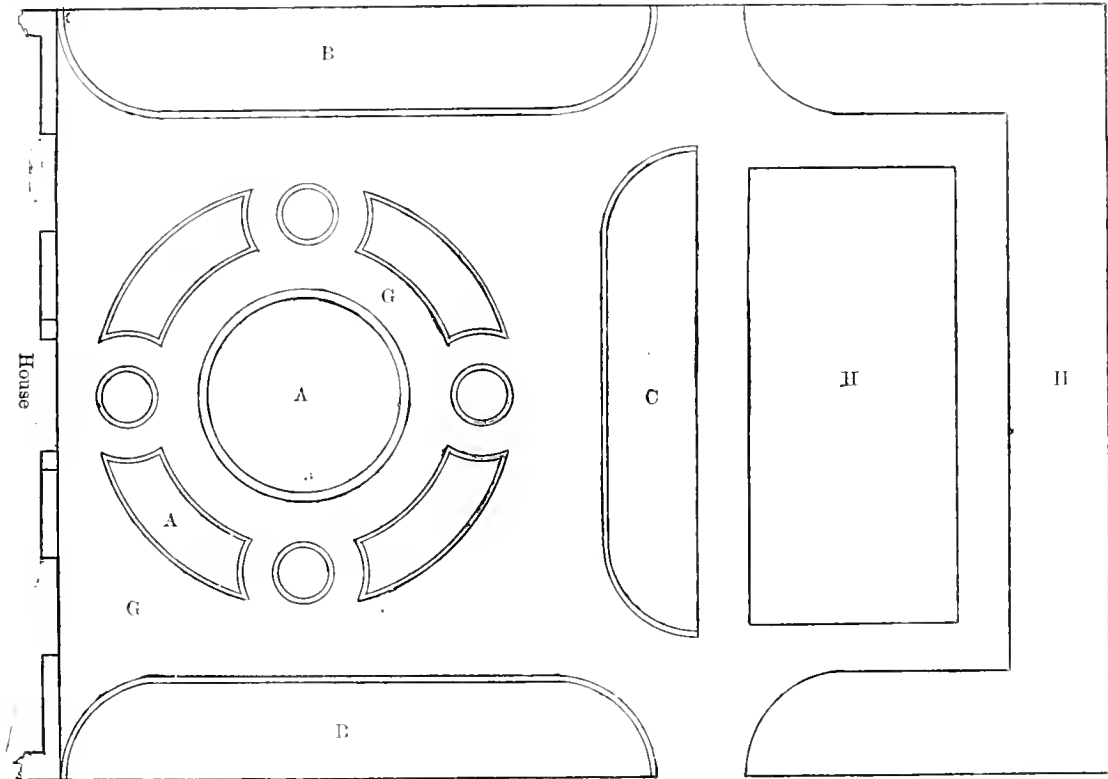


Fig. 132.

A, A, Flower beds edged with Ivy.

B, B, Borders for hardy flowers edged with Ivy.

C, Bed of shrubs with an edging of Ivy.

G, G, Gravel.

H, H, Vegetables.

much future trouble and vexation in trying to keep neat and ornamental that which by courtesy is supposed to represent a fresh green grass plat, but is in reality a dark brown-looking melancholy object, especially in the dull winter months. Instead of the turf we will have gravel, or even a little Derbyshire spar to walk upon, and so avoid mowing, and render the entire garden far more bright and enjoyable. But there must be greenery and abundance of it to impart softness and repose: this is best obtained by planting a broad edging of the green Irish Ivy (*Hedera canariensis*) to the whole of the flower beds and borders. No plant is equal to this for such a purpose. It is unaffected by smoke or dust, and, once established, it literally takes care of itself; its dark green elegant foliage being as much valued for its intrinsic merit as for its fine effect as a foil to the gravel and the flowers which it surrounds.

In the plan (fig. 132), the flower beds are intended now for such spring flowers as the Hyacinth, Tulip, Crocus, Snowdrop, Myosotis, Silene, Saponaria, Nemophila, Collinsia, &c., and in summer for such plants as the fine gardens in the parks have made familiar to all. The borders, B, B, are for hardy flowers, such as Pinka, Carnations, Phloxes, Pentstemons, Iris, Campanula, and a host of others. They are precisely such borders as become, in the hands of an enthusiastic person, the receptacles of such floral treasures as he gradually accumulates

from the different nurseries which he visits; they also contain the spoil of many a raid made upon the gardens of friends far and near. Ah! kind country reader, as you have been leaving any large town, perchance in a manufacturing district redolent of smoke, and dust, and other impurities, with all the usual bustle and clamour of a busy crowded community, have you never met a respectable rosy-faced person, not riding but trudging sturdily along with an inexpressible smile twinkling in his kindly eye, his arms laden with odd-looking packages, his pockets bulging out in the oddest manner imaginable, and perchance with his hat awry upon his head? Well, that is the man who treasures such a border, and who occasionally visits you and I, delighting us so thoroughly by his genuine enthusiasm; and we are the guilty parties who send off the good man laden with various odds and ends of no particular value to us, but which to him are veritable gems wherewith to decorate his town home.

The border C is for shrubs, so as to shut out the lower portion of the garden where "J. E. W." intends making his first essay in the cultivation of vegetables. In selecting shrubs for a town garden avoid Conifers. The elegant forms are very tempting, but they soon lose all their beauty in the murky atmosphere of towns. The best shrubs for such a purpose are Rhododendron, Ledum latifolium, Portugal Laurel, Bay,

Mahonia, green Holly, Golden Queen Holly, Berberis Darwinii, E. stenophylla, Aucuba japonica, Cotoneaster Simmondsii, Eucymus latifolius, E. ovatus aureus, E. radicans, and the common Box, with Yucca recurva, Y. filamentosa, and Y. gloriosa. If ornamental climbers are required for the walls take Cotoneaster microphylla, Berberidopsis corallina, Escallonia macrantha, E. pterocladon, Garrya elliptica, Crataegus Pyracantha, Jasminum nudiflorum, J. officinale, Lonicera flexuosa, and Ampelopsis Veitchii.

Vegetable culture should be confined to salads, as Radishes, Mustard and Cress, Lettuce, Endive, Chervil, Tarragon, with such herbs as Mint, Sage, Thyme, Savory, Chives, and Parsley. Two or three roots of Rhubarb might also be added.—EDWARD LUCKHURST.

NOVELTIES IN THE ROYAL GARDENS, KEW.

ENTERING the Orchid house from the new porch, an improvement recently erected, we first notice a fine plant of *Odontoglossum bictoniense*, sending-up several vigorous flower stems that will bloom for months. Underneath are some good masses of *Cypripedium insigne*, which, though common, is one of the best for general cultivation. *Lycaste Skinneri* is represented by good varieties, and is one of the best and finest Orchids for winter-blooming. *Oncidium bracteatum* is curious from its large, dry, and thin bracts; it has yellow and blackish brown flowers. *Liparis pendula* is very graceful from its tail-like racemes of small green flowers. Next is a good variety of *Oncidium crispum*, with *O. excavatum* and *O. obryzatum*. *Odontoglossums* are represented by *O. grande*, *O. cordatum*, *O. Uro-Skinneri*, and *O. bictoniense* before mentioned. *Mesospinidium vulcanicum* is very pretty, with flowers in colour like *Broughtonia sanguinea*. The latter is often found to dwindle from the time of importation; it should be grown on a block where there is plenty of heat and moisture. *Maxillaria setigera* is pretty from its orange flowers; as a rule the genus is not ornamental, though several are worth growing. There are a few interesting *Cypripediums*: the new *C. Roezlii*, named after the energetic collector; *C. pardinum*, *C. barbatum* superbum, and two hybrids, *C. Dominianum* (*C. caudatum* × *C. Pearcei*), and *C. Harrisianum* (*C. villosum* × *C. barbatum*), both obtained by the enterprise of Mr. Dominy. *Calanthe Veitchii* is another hybrid between *C. vestita* and *Limatodes rosea*, also effected by Mr. Dominy, which, with other kinds of *Calanthe*, is very effective. Of *Phalaenopsis* in flower are flourishing plants of *P. amabilis*, *P. grandiflora*, and *P. rosea*. *Dendrobium aequum* has pure white flowers, but is not very free in blooming. *Eulophia guineensis* is very ornamental, and not at all common. The flower stems are erect; the lip is rosy pink, from which the beauty of the plant, and then the upturned sepals and petals afford a distinct character. Of several *Epidendrums*, the most worthy is the ever-in-flower *cochleatum*. It was among the first epiphytal Orchids introduced, and is not yet to be despised, though few cultivators think it of much value. There are two forms, the one much larger than the other. *Brassavola cordata* is ornamental, though, excepting the white lip, its flowers are green. Many others less conspicuous are also in flower.

Dombeya Burgesse is very pretty, flowering in the Palm house. It is allied to *Astrapea*. The blooms are white, with crimson at the base of the petals. The branches sometimes require cutting-in to induce a bushy growth. A stove or intermediate-house temperature is requisite. Cuttings are easily rooted under a bell-glass. Loam and peat in equal parts, with a portion of sand, form a good compost. It is a genus but little known in gardens, several of the species are worth cultivation.

Salvia lantanifolia is used with good effect in No. 4, and being little known we have to recommend it for conservatory decoration, not as surpassing the species already in general use, but as worthy of cultivation for the sake of variety. It has a densely freely branching habit; the leaves are ovate, finely serrated, dark green, and about 3 inches long. The flowers are of a rosy tint, quite different from the scarlet of the three more commonly-grown kinds—*S. Heeri*, *S. gesneriflora*, and *S. splendens*. These and *Chrysanthemums* may be planted out of doors in summer. The cuttings should be struck in spring, so that good plants may be had for planting-out as soon as frost is over. Select a moderately rich piece of ground, if in the full sun so much the better, and let the plants be so wide apart as to allow sufficient room for the watering and staking required to be done. Stopping the shoots must be

attended to. The *Salvias* must be taken up before they can be injured by frost, and the *Chrysanthemums* about the time when the flower buds are forming. Care is necessary, so as to obtain good balls, and injure the roots as little as possible. After potting the plants must be placed in a shady position, and be syringed occasionally; pots must be used as small as the balls will allow. This part of the treatment requires care, or the leaves will drop so as to disfigure the specimens. The practice of planting-out is not perhaps to be recommended as the best system of cultivation, but, when little time and trouble can be given, it will certainly produce the best results. The objection is that the leaves fall after the plants are potted, but with care so few will drop as not to disfigure the plants. Circumstances, however, must always decide the best method of cultivation.

The *Victoria regia* still continues to flower, and is likely to last longer than usual, which may be attributed to mild weather; when cold so much moisture is condensed as to cause excessive drip. In this tank is a specimen of the remarkable and interesting *Nipa fruticans*. It has the foliage of a Palm, and horticulturally may be considered as such; but the fruit is more like that of a *Pandanus*, and to the order of which it is usually referred. In Dr. Hooker's "*Le Maout and Decaisne*" it is constituted a separate order, which is doubtless correct, as it does not accord well either with *Pandanaceae* or *Palmae*, though possessing some of the characters of both. It may be considered as a link between the two. It is of much interest from the circumstance that a similar plant abounds in the tertiary formations at the mouth of the Thames, "where the nuts floated about in as great profusion as here (mouth of the Ganges), till buried deep in the silt and sand that now form the island of Sheppey" (Dr. Hooker's "*Himalayan Journal*"). According to the theory of evolution, if not quite the same as *Nipa*, we may presume it to be the origin of that plant, perhaps contemporary with the monkey stage of man's development! The leaves are tri-natisect, and often more than 20 feet long. Its cultivation is attended with some difficulty. The pot should stand in water at a temperature of 85° to about half way up, and that appears to be the most important point, provided that it has a position in the warmest stove. The soil should consist of good loam without enriching material. The nuts if sent dry in the usual way are most likely to arrive dead, but if placed in the soil of a Ward's case will germinate on the way, and every one may make a plant. They will first require large 60 or 48-sized pots, and must be shifted on as necessary, preferring to perform the operation not later than early summer. It appears to be of much economic value. The leaves are used as thatch, when pounded are applied to cure the bites of centipedes, and a decoction is good for wounds; when burnt they afford a supply of salt. Toddy is extracted from the spathe, and used in various ways. The interior of the fruit also is edible before it is quite ripe. It inhabits the swampy estuaries of the large rivers of India and the Moluccas.

SOUTH ESSEX CHRYSANTHEMUM SOCIETY.

THE sixteenth Exhibition of this Society was held in the Town Hall, Stratford, on the 14th and 16th inst. As usual, the specimen plants were a marked feature in the Show, but were confined principally to three exhibitors—viz., Mr. D. Donald, gardener to F. G. Barclay, Esq., of Leyton; Mr. Simmonds, gardener to Alderman Finnis, of Wanstead; and Mr. J. Douglas, gardener to F. Whitbourn, Esq., Loxford Hall, Ilford. The best large-flowered specimens were sent by Mr. Donald. Mr. Simmonds had some very neatly-trained examples, and his foliage was very healthy. Those from Mr. Douglas had flowers of rather better quality, but the training and the foliage were not so perfect, so that the Judges after much deliberation placed the collections equal.

The Pompon section was well represented. Mr. Douglas was placed first here, Mr. Simmonds second, and Mr. Donald third.

Decorative plants from Messrs. Donald and Douglas, and fruit from Mr. Douglas, helped to give variety to the Exhibition, which was weak in one point this year—viz., cut flowers; all the growers complained that their blooms were over. C. Saunderson, Esq., of Victoria Terrace, had the best blooms, and these were remarkably fresh and of large size. Mention must also be made of the neatly-trained well-flowered standards, both of the large-flowered and Pompon section, sent by Mr. Rainbow, of Clapton, and to which first prizes were in each case awarded.

MILDNESS OF THE SEASON.—I have now ripe Strawberries in my garden without the slightest protection; the plants are

also in blossom. On November 12th I picked ripe Raspberries. —SUTTON ABBOTT, *Wanstead, Essex.*

ROOT SHOWS.

MESSRS. SUTTONS'.—As I have for the last two or three years chronicled the particulars of this ever-advancing Exhibition, it may not be uninteresting to the readers of the Journal to know something about that which was held at the greatly-enlarged premises of the Reading firm on Saturday last; and if the idea crosses the mind of any of our readers that Mangolds and Swedes, and Kohl Rabi and Turnips, have more to do with the agriculturist than with the horticulturist, let me add that in addition to these there was such a collection of Potatoes and garden vegetables, especially of the former, as I have not seen for many a day; in fact, I doubt if so fine a collection of the "noble tuber" has ever been put on the exhibition table.

After the very lengthened drought which we have experienced this year one might have expected that the Show would have fallen short of some of its predecessors; but so far from this being the case, it was in advance, nearly nine thousand roots being staged; and although in some things the roots were not so large as formerly, there was a perfection of form and symmetry about them which more than compensated for the lack of size, although we can hardly speak of lack of size when some of the roots of Suttons' Long Red Mammoth Mangold weighed upwards of 40 lbs., and Swedes weighed 21 lbs. When one handled some of the roots one saw their excellence—the Swedes with hardly any neck, and the Mangolds so clean and devoid of those hard and woody parts which are uneatable. The roots which would, I think, most please an ordinary observer, and I am not quite sure but the farmer also, were those of Suttons' Golden Tankard Mangold, of which there were thirty entries. The flesh of this sort is a bright yellow, and is very nutritious; but on examining those in the prize collections it was noticeable how thoroughly useful it must be, the root being the same size at the bottom as at the top, and thus producing of necessity a larger quantity of food per acre, and a larger quantity of good profitable matter. I have already alluded to the size of the Show, let me give here the number of entries in some of the classes. Of Suttons' Mammoth Red Mangold there were eighty entries; of Suttons' Berkshire Prize Yellow Globe, seventy-five entries; and of Swedes eighty-seven entries, for one collection of which a silver cup, value ten guineas, was awarded.

And now to come to what is more strictly garden produce. There were fifteen collections of vegetables, and of Potatoes no less than ninety-eight entries, divided into three classes—twenty-five collections; forty-five of Red-skin Flourball, and twenty-five of Hundredfold Fluke. It may give some idea of the excellence of the vegetables when I say that Mr. Pragnell, gardener to G. Wignfield Digby, Esq., of Sherborne Castle, who generally takes so prominent a position at our metropolitan exhibitions, only took a third prize, the first, a handsome silver cup, being taken by Mr. Tegg, gardener to John Walker, Esq., of Bearwood. A more beautiful collection it would be difficult to imagine. Specially noteworthy were the roots of Suttons' Beet, one of the finest, if not the finest, variety in cultivation, and the Brussels Sprouts (Suttons' Matchless Improved), which were the perfection of what the vegetable ought to be.

The Potatoes were grand; and if any doubt existed as to the value of the two varieties which the Messrs. Sutton have sent out and laid so much stress upon—Red-skin Flourball and Hundredfold Fluke, it must have been dispelled by the appearance of the Show-room. As to the former, its immense cropping qualities and its comparative freedom from disease must make it ere long *par excellence* the cottager's Potato; and I do not know any better way to benefit our cottagers than by dispersing this variety amongst them. It has quality as well as size, but the cottager generally looks on this as a secondary matter. The collections of Potatoes shown by Mr. Wildsmith, gardener to Lord Eversley, who gains the five-guinea silver cup, and by Peter McKinlay, Esq., of Beckenham, were most beautiful specimens of culture; the Yorkshire Heros of the former exhibitor were especially fine. Of all the American Potatoes I must give the palm to Snowflake, which I think is destined to take a good place amongst our growers; it is large, of good quality, and a capital cropper. Of other varieties exhibited there were Rector of Woodstock; Bresee's Prolific and Suttons' King, which, with all due deference to the Chiswick authorities, are not the same; Lapstone, Model, a very beautiful Potato; Ashleaf, Climax, and other well-known varieties. Altogether the Messrs. Sutton may be congratulated on an Exhibition which shows the growth of their own business, and the public may be congratulated on the fact that such opportunities are given to them of seeing what the gentry and farmers of England are doing to keep up that supply of root food which is so essential to us as a meat-eating people.—LE ROI CAROTTE.

MESSRS. CARTER & CO.'S.—This was held at the Agricultural Hall, Islington, on the 20th inst., and some idea of its extent

may be formed when we state that it occupied the whole of one of the long galleries of that large building; moreover, the roots were not extended in single line, but were placed in several lines four and six deep. The past season is so well known to have been unfavourable to root crops—some of which, as Turnips, have been sown and sown again—that we need hardly mention the fact, but the number of entries, and the size and quality of the roots, were surprising. Gardeners, as a rule, have not much to do with Mangold, and Swedes, and cattle Turnips, but to every man the success or failure of such crops is a matter of vital importance, regulating as it does in a very large degree the price of that expensive article, butchers' meat. It is, as our correspondent has just remarked, of essential importance to us as a meat-eating people. The rage at present is all for size, but it is to us a question whether in many cases smaller roots, indeed a less produce per acre, may not yield a greater amount of nutritive matter than when roots and produce are larger. This, however, is a matter which can only be determined satisfactorily by the analytical chemist, and in the meanwhile we are content to take bulk and cleanness of roots as our guides to judge of their quality.

Messrs. Carter had in their schedule twenty-three classes divided among Swedes, Mangolds, Turnips, Carrots, Kohl Rabi, and Potatoes. Carter's Imperial Swede, a bulky variety, was numerous and well represented; whilst of Improved Mammoth Long Red Mangold gigantic specimens were shown, the half-dozen which took the prizes for size weighing collectively 246 lbs. The other varieties of Mangold were Warden Prize Yellow Globe, Intermediate, New Sandringham, New Yellow Tankard-shaped, Red Globe, and Long Yellow. Of the Intermediate some of the roots weighed from 30 to 31 lbs., and some came from Lord Warwick's sewage farm, where the produce was stated at 84 tons per acre. The Turnips were exceedingly well formed and good, and there were, besides, several collections of very sound well-grown Potatoes.

THE PELARGONIUM SOCIETY.

The following prizes will be competed for at South Kensington, July 21st, 1875, by permission of the Royal Horticultural Society, and subject to the regulations issued by that Society.

Class I.—Twelve distinct varieties of Zonal Pelargoniums, "florists' class," in pots of 8 inches in diameter. (Open.) First prize, £8; second prize, £5.

Class II.—Twelve distinct varieties of Zonal Pelargoniums, "decorative class," in pots of 8 inches in diameter. (Open.) First prize, £8; second prize, £5.

Class III.—Thirty distinct varieties of Zonal Pelargoniums, "irrespective of class," in pots not exceeding 6 inches in diameter. (Open.) First prize, £6; second prize, £4.

Note.—The varieties to be shown in the above classes are to be of the flowering section—not those with variegated leaves. Class I., designated "florists' class," is intended to include only those varieties which have finely-shaped flowers, according to the florists' model. Class II. is intended for profuse-flowering, showy varieties, otherwise known as Hybrid Nosegays.

Class IV.—Six ornamental Cape Pelargoniums, dissimilar. (Open.) First prize, £3; second prize, £2.

Class V.—Best Hybrid Pelargonium, of distinct character. (Open.) First prize, £2; second prize, £1.

Class VI.—Twenty-four Pelargoniums, cut blooms, single trusses, dissimilar. (Open.) First prize, £2; second prize, £1.

Class VII.—Twelve Pelargoniums, cut blooms, single trusses, dissimilar. (Amateurs.) First prize, £2; second prize, £1.

Note.—The Judges may in their discretion, and subject to the approval of the Committee, award a prize to any exhibit worthy of particular notice, which may not be provided for in the schedule. They may also withhold any of the above prizes if the exhibit be not of sufficient merit.

Conditions of Competition.—It is imperative that every variety exhibited shall have conspicuously appended to it, its own name, together with that of the raiser, such names to be either printed or distinctly written on a card.

The "Chiswick standard" to be adopted in regulating the size of the pots—that is, "8-inch pots" measure 8 inches across and 8 inches deep inside, at a point 1 inch below the top edge; 6-inch pots in like manner measure 6 inches deep and 6 inches wide inside, at an inch below the edge.

The Society proposes to accomplish these objects:—

1st, By offering liberal prizes to be competed for by British and foreign exhibitors, and thus to afford raisers and cultivators an opportunity of forming an opinion as to the merits of new varieties, and to give the general public the means of judging the decorative value of these plants under superior cultivation.

2nd, By determining the merits and distinctive qualities of new varieties, and their suitability for conservatory decoration or bedding-out purposes, or both.

3rd, By cultivating all new varieties, British or foreign, side

by side, and in conjunction with approved old kinds; during the first year under glass, and out of doors in the second year.

[With reference to this point, the Society has reason to think that opportunities for carrying out these tests will be afforded by the Royal Horticultural Society at its garden at Chiswick.]

4th, By the formation of a register in which approved sorts shall be entered, and from which inferior varieties shall be eliminated.

[In conjunction with this register, it is hoped that an accurate report of the means adopted, and of the results obtained, in the process of hybridisation, may be kept, for the purpose of comparison and scientific study.]

5th, By facilitating intercourse and interchange of opinion between raisers and cultivators.

It may here be remarked that the Society has already taken steps towards securing the due recognition of the labours of those to whose skill and patience we are indebted for improved varieties, by stipulating in its schedule that the name of the raiser be affixed to every plant exhibited—an act of simple justice, worthy of adoption in all similar cases. The Royal Horticultural Society also suggests the adoption of this recognition in clause vii. of rules attached to its recent schedules, but in lieu of a suggestion it should be made "a condition" in offering the prizes.

SOME OF THE VEGETABLE PRODUCTS OF CEYLON.—No. 2.

COTTON.—A considerable quantity of native Cotton was grown in Ceylon some years ago, and manufactured in the island, but not, to the best of my knowledge, exported. Small quantities are still produced in the western, north-western, and eastern provinces, and manufactured into native cloth. The importation of Manchester goods of late years from England has led to a considerable diminution in the Cotton produce of the island.

An admirable *brochure* on the condition of Cotton cultivation in Ceylon, with suggestions for its extension and encouragement, by Mr. James Augustus Cailey, F.G.S. (a retired member of the scientific branch of the Ceylon Civil Service), with an excellent map of the Cotton-producing districts of Ceylon annexed, and with tabulated and statistical returns from all parts of the island, was published in Manchester in 1859.

Mr. Cailey states, it has been said that Ceylon does not contain soil suitable for the growth of good Cotton, that the peculiar soil called "regur," in which it is so extensively grown in continental India, and which is generally called black Cotton soil, does not exist in Ceylon. Mr. Cailey is of opinion that such impression is erroneous, and that from personal knowledge, not only is black Cotton soil found in Ceylon, but that it extends over a considerable area, accompanied with beds of kunkur, a calcareous formation found under the same circumstances in Southern India. Mr. Cailey most wisely lays down, as an important element of success, to confine operations in the first instance to those districts of the island which are advantageously situated with reference to shipping ports. He instances the gradual adoption of Coffee cultivation, and that of an improved character, by the natives, supply following demand, as analogous in its action to what would follow in regard to the cultivation of Cotton by the natives if a steady demand existed for all they could bring into the market.

In the published dispatch dated November 27th, 1857, from the able and energetic then Governor of Ceylon, Sir Henry G. Ward, addressed to the Secretary of State for the Colonies, he states that there can be no doubt, from the concurrent testimony of those best acquainted with Ceylon, that a large portion of it, and more especially that which is subject to the influence of the north-east monsoon, is well adapted to the growth of Cotton; that the plant thrives there naturally in its wild state; and that with a very small amount of care Cotton of a very fine quality may be produced; that large tracts of land might be found susceptible of irrigation from their vicinity to some of the ancient tanks, the water in which might be rendered available at a comparatively small expense. Sir Henry concludes his dispatch by urging that what are required to insure the success of a Cotton plantation in Ceylon are one or two practical men acquainted with the best modes of raising Cotton, bringing out the best seed, and selecting for themselves, with the advice of the officers of Government in Ceylon, the most favourable sites as regards climate, population, soil, and access to the coast; that all these requisites might be found within a reasonable distance from Trincomalee. Labour might be procured from Jaffna at a very reasonable rate, wages

in that province not exceeding fivepence a day.* If periodical irrigation be required there is an inexhaustible supply of water in the tank of Kandelly, which might be rendered available at any point between it and the sea, and in this manner in two years, with a capital of £10,000, under proper arrangement, results might be obtained which would probably lead to investments upon a much larger scale, and end by rendering the Cotton of Ceylon as well known in the manufacturing districts as its Coffee is now.

My friend Dr. Thwaites, the accomplished Director of the Royal Botanic Gardens in Ceylon, considers that some good results would follow (he held that opinion some time ago), if the indigenous Cotton of India were improved by hybridising or crossing the native kinds with the Bourbon, Sea Island, and New Orleans varieties, the same plan being adopted and the same precautions observed that are taken in crossing valuable flowers and fruits with such signal success in Europe; and that if the experiment should not end in so favourable a manner as could be desired, a problem of very great interest would have been solved as to the affinity which the several varieties of Cotton bear to one another. If by these experiments it should be found that real progress had been made towards improvement of the native Cotton, the system of crossing might be still further carried out, using the plants of the already improved stock instead of those of the original native kind for crossing upon, and this operation might be carried on for several generations of plants, until the maximum improvement should be considered to have been realised. I have always held the opinion† that, in new articles of export the interference of the Local Government up to a certain point—namely, until the cultivation and export of such new articles had been proved to be a financial success, was legitimate and highly advantageous to the colony.

When representative of the Crown in the central province I drew up a report for the Kandy Agricultural Society, of which I was President, which was submitted to the Ceylon Government, in which the Society expressed their hope that the Government would be pleased to request the active co-operation of its agents in regard to the general subject of Cotton, and that it might, perhaps, be thought advisable to encourage so valuable a product by permitting and encouraging the inhabitants of districts favourable to its growth (and there are thousands of acres well adapted for its cultivation) to pay for a certain period a portion of the taxation due by them to Government in Cotton; the rate at which it was to be received to be fairly adjusted, and the Cotton so received to be sold in the colony, which might be done without difficulty, to any of the mercantile island firms. This procedure was some years ago adopted in the case of plumbago, and if sanctioned in the case of Cotton might be strictly limited to a period which would admit of the experiment as to the character and value, and if any impetus were given thereby to the further cultivation of this valuable article being fairly tested.

The adoption of this recommendation as to Cotton by enlisting the native population in its cultivation—and patches of suitable land in the immediate vicinity of their villages might be most advantageously and economically cultivated with Cotton by the labour of their own families—would, I am sanguine in believing, lead to the appearance of Cotton as an item of some amount in the exports of Ceylon. With the introduction of additional labour from the continent of India and of Chinese (for I have been ever the advocate for the introduction into Ceylon of the latter industrious class, not to be taken from the rabble of Canton and other large towns, but from "that great nation of labourers behind the coast," as described by Mr. Fortune, than whom there exists no more trustworthy and practical authority), Cotton estates might be also opened, in localities suitable in reference to soil and climate, with great advantage by European colonists.—E. RAWDON POWER, *Ceylon Civil Service (Retired), Tenby, South Wales.*

VEITCH'S SELF-PROTECTING BROCCOLI.

WE have had brought to our notice one of the most perfect self-protecting Broccolis it has ever been our fortune to meet with. So thoroughly self-protecting is it, that the beautiful

* This is not the case, I apprehend, in Jaffna (northern province of Ceylon), at the present time, as there exists a greatly increased demand for labourers, and their rate of pay has been thereby augmented.

† In my article on the Cocoa-nut, in the number of the "Food Journal" of February, 1873, I alluded to the successful action of the Local Government in reference to the production and export of Cocoa-nut oil from Ceylon.

white head is hidden as completely in a mass of foliage as the proverbial needle was in a bundle of hay. One has literally to hunt for the head, and when it is found it is the model of what a head of Broccoli ought to be—even and solid, of perfect colour, and not more than 4 to 5 inches in diameter—just such an object as families of refinement would like to see on their table. We hope that Messrs. Veitch will in other vegetables, as they have in this, take the lead in the introduction of a class which shall serve more as an ornament to a gentleman's table than many of the novelties which have been offered to the public of late years.

GARIBALDI STRAWBERRY.

I READ Mr. Wright's article relating to the above Strawberry, mentioning as a curiosity the gathering of ripe fruit from the open air in October. I gathered here on the 13th of November a nice dish of ripe fruit of the above-named Strawberry from the open air. I may here state the plants form part of a plantation of several years' standing, as some may be led to suppose they were some of those forced in the previous spring, and which are known to produce a second crop late in the season.

In consequence of our family being absent for a few days I had deferred gathering the fruit, or else two or three days previous to the 13th I might have gathered many more, but the feathered tribe deprived me of them. I did not indulge myself in tasting them, being anxious to send every one to table, treating them quite as a luxury at this season of the year; but Lady Devon informed me to-day that they were very sweet, and possessed a flavour nearly, if not quite, equal to those of early summer production. At the present time the plants are laden with fruit, many of them having attained a full size, and the crop would not fail to give satisfaction in the ordinary Strawberry season. If the weather prove mild I have not the least doubt but that I shall be able to gather more ripe fruit for some weeks hence. Last night I had several of the best of the plants bearing the most promising fruit protected with hand-lights, which perhaps may assist me in my expectations.—D. A. POWELL, *Powderham Castle, Exeter.*

WHICH IS THE OLDEST CEDAR OF LEBANON IN BRITAIN?

AMONGST my scraps is the following in my handwriting, but no note of whence it is extracted:—"At Bierley Hall, three miles of Bradford, Yorks., on the lawn stands a Cedar of Lebanon (*Cedrus Libani*), which, if not the first, was certainly one of the earliest introduced into this country. London gives 1683 as the date of its introduction, on the authority of Barrelier, a French botanist of 1714. Dr. Richardson received the Cedar, along with some others, a seedling, as a present from his friend Sir Hans Sloane about 1700, it being planted in a greenhouse under the impression that it would not thrive in the open air; but after a time it was transplanted to the place where it now stands, in a smoky atmosphere, but still the admiration of all who know its history. The greenhouse in which the tree was planted was the second hothouse (so called) ever erected in England, and by the same workmen who erected the first at Orford, near Liverpool. Dr. Richardson resided with the eminent botanical professor Paul Hermann three years at Leyden."

Is the tree still living or standing? If so, is there an older one or one so old existent in Britain, and where? What are its dimensions?—G. ABBEY.

FLOWERS FOR OUR BORDERS.—No. 44.

SALPIGLOSSIS SINUATA COCCINEA.—SCARLET SALPIGLOSSIS.

THE singular variety of colour afforded by the different forms of *Salpiglossis sinuata*, a variety hardly equalled by any other genus in cultivation, has enabled this plant to retain its place in popular estimation, notwithstanding the very considerable number of more recent introductions in the class of annual plants. But for one rather serious defect the Salpiglots would unquestionably take even higher rank: we allude to their height, which renders them less fitted for small masses or beds than many dwarfer but less showy plants. It is true that so-called dwarf varieties have been raised, and are annually offered in the seedsmen's lists, but the difference between these and the older varieties is less marked than could be wished,

and much remains to be accomplished in perpetuating a strain of these elegant annuals of decidedly dwarf habit.

Of the numerous distinct shades of colour in which *Salpiglossis sinuata* occurs, none are more pleasing than coccinea. In its general habit and characters it resembles the other varieties; like them attaining a height of $1\frac{1}{2}$ to 2 feet, with erect branching stems clothed with clammy hairs. Its colour is "a clear vivid tender scarlet," relieved by darker veins of the same tint.

Its cultivation is precisely that of the other varieties. The seeds require the aid of a hotbed, and are best sown in March in pots of light sandy loam: they should be thinly distributed, and as soon as the seedlings are an inch or two high abundance of air should be admitted if the weather is sufficiently mild to allow of it, for the Salpiglots are by no means tender, and will not bear "coddling." When the young plants are large enough to handle without injury they may be transferred in small patches to larger pots of light, rich, but well-drained soil. If, however, the seedlings have come up thickly, they



Fig. 133.—*Salpiglossis sinuata coccinea*.

will need transplanting separately, or thinning-out. In either case they should, when repotted, be returned to the hotbed, and be kept closed for a few days; after which, about the end of April, they may be placed in a cold frame, and gradually hardened off before planting out in May. A light rich soil, composed of a little leaf mould and thoroughly decayed manure mixed with sandy loam, suits them best. They form a very beautiful bed where the massing system is adopted, but are equally valuable for planting in clumps in the mixed borders, and will flower through the summer.

In favourable localities the Salpiglossis may be treated as a hardy annual, the seed being sown in the open border in April, and sturdier plants will be thus obtained, which will, however, bloom somewhat later than those raised under glass.

The Salpiglots are all natives of Chili.—(W. Thompson's *English Flower Garden*, Revised by the Author.)

GRAFTING THE PEAR ON THE MOUNTAIN ASH.

PERMIT me to relate my experience in grafting Pears on the Mountain Ash stock. I find the scion and stock unite generally well. Owing to bad seasons, &c., I have not had much opportunity of judging of the fruit of such trees. This year,

however, some have borne well, and the trees seem healthy. I cannot help thinking that the fruit is later in ripening than the same would be on a free or a Quince stock; the fruit seems harder, and altogether not so good. These observations especially relate to Brown Beurré Pears grafted on the above stock. I should add that this locality has a poor gravelly soil, and that the Mountain Ash is indigenous here. The situation is 450 feet above the sea, from which it is some three miles distant, and in a mountainous region.—C. R.

NOTES AND GLEANINGS.

MESSES. DICK RADCLAYE & Co. have brought to our notice a BUDDING KNIFE upon a plan which is quite new, and which it is surprising has not been thought of before. It is well known that in using the ordinary budding knife, after making the cut for the reception of the bud, the knife has to be turned in the hand to open the bark with the point of the handle. In the "Improved Budding Knife," the back of the blade is used for this purpose, and there is, therefore, no need for turning the opposite end of the knife to effect this. It might be an improvement if the handle of this new knife were made a little lighter.

— ONE of the grandest objects, says the *San Francisco Bulletin*, which meets the eye of the traveller in our mountains is the exquisite plant, the Snow Plant of the Sierras—the *SARCOCODE SANGUINEA* of John Torrey the botanist. It is an inhabitant only of the higher Sierras, being rarely found below an altitude of 4000 feet, and its glorious crimson spike of flowers may be seen early in May forcing itself through the snow which at that period clings about the sides of our Pine forests. The portion of the plant which is visible above the soil is a bright rosy crimson in colour, and presents the very strongest contrast to the dark green of the Pines and the shimmer of the snow. Its root is succulent, thick, and abundantly free of moisture, attaching itself to the roots of other plants, principally to the species of the Pine family. Hence it is among those curious members of the vegetable world which are known to botanists as parasites, and is consequently entirely incapable of cultivation. The deer are extremely fond of it, and it is not an uncommon circumstance to find a number of the plants uprooted and robbed of the fleshy part of their underground growth by these animals. It belongs to the natural order *Orobanchaceæ*, and is met with through the whole of the Sierra region, becoming rarer as we approach the south.

— ONE of the pastimes provided for the British soldier in India is that of gardening, and Lord Napier has just issued a resolution on THE HORTICULTURAL RESULTS OF THE PAST YEAR in THE BENGAL ARMY. His lordship is pleased to notice that there has been a considerable increase in the number of soldiers who have taken to gardening during the year, and he is also glad to observe that the regimental gardens in many cases so satisfactorily answer the purpose for which they were instituted, and that they not only supply very considerable quantities of vegetables to the commissariat for issue to the troops, but also serve as a pleasant lounge for the men and their families. The largely increased number of men who now occupy themselves in gardening affords satisfactory evidence of the great interest which has been taken in company gardens during the past year. The only drawback to the success of the gardens has been the quantity of bad seed supplied, but that is to be looked to more carefully in future.

— A COMMITTEE has been formed to obtain funds for a TESTIMONIAL to MR. E. R. CUTLER, Secretary to the Gardeners' Benevolent Institution, and during whose connection with it a great advance has occurred in the Society's usefulness.

— AT the Royal Agricultural Society the Judges appointed to inspect the growth of the six varieties of POTATOES which were entered for competition as disease-proof, and planted in trial plots in twenty different places in England, Scotland, and Ireland, have reported that none of the varieties have resisted the Potato disease. During the period of vigorous growth in all the varieties, in five out of the twenty localities the disease was virulent, and by the end of the season it was found that in almost all these places more or less disease was apparent; so that the question of disease-proof Potatoes, as far as these trials are concerned, has been practically decided in the first year. The note-books of the growers and the reports of the Judges contain much valuable information as to the influence of soil, climate, and various methods of cultivation upon the

action and progress of the Potato disease. The Committee, therefore, recommend that Mr. Carruthers, who has carefully inspected every trial plot, be requested to collate these experiences for publication in the next *Journal* of the Society. The Potatoes which were grown upon the trial plots, after having been carefully examined by the Judges, and the per-centages of diseased tubers ascertained, have been sent to the Agricultural Hall. It is proposed that the competitors shall have the first offer to purchase the produce of their own entries, and that if they, or any of them, decline, the Potatoes shall be sold by auction or by salesmen, as the Committee may determine. It will be remembered that the Council reserved a power to enforce a penalty of £20 in case of the failure of the entries of any competitor to resist the disease, but the Committee recommend that this penalty be not enforced in any instance. Most important communications have been received from Professor De Bary, who has ascertained by recent experiments that the Potato disease is not propagated by infected tubers; that although the mycelium of the fungus (*Peronospora infestans*) was distinctly apparent in the stalks of plants raised directly from diseased tubers, no gonidia or germs were evolved. The Professor remarks upon this curious circumstance that he is struck by this result of seeing the fungus with the naked eye during two or three months in his little field, and all the plants and leaves intact. Professor De Bary, in a later communication, expresses sanguine hopes that he has at last discovered the certain nidus, or resting places, of the oospores, or active primary germs of the fungus, which, as he says, would essentially accomplish its life history; and the great practical results of these discoveries, if perfected, will obviously be that measures may be taken by Potato-growers to avoid planting Potatoes after, or in the immediate vicinity of plants known to be suitable to the development of the oospores of the fungus, or that steps may be taken to destroy them *in situ*. This report was adopted.

CANKER AND SHANKING.

I SEE it suggested in the *Journal* that canker in Apples and Pears arises from poverty of soil. Mr. Rivers, on the other hand, recommends lifting—that is, diminishing luxuriance. My idea is that canker arises from the action of frost upon unripened wood, some varieties being more tender than others; if so, Mr. Rivers is right. I had a plant of his Winter Beurré, which cankered, but having heard that it was much valued at Bordeaux, I placed it against a wall, and it now grows well. But, of course, one experiment is not proof.

I wish some of your correspondents who have grown Frontignan Grapes in the open air, would state whether there is truth in the assertion that under such circumstances shanking is unknown. If it be a truth it shows the fallacy of the received opinion that shanking arises either from bad roots or from overcropping, since Vines under glass, if not planted outside, soon find their way there when they can, and there is no reason to suppose that outdoor Vines are less cropped than indoor plants.—G. S.

NOTES ON VILLA AND SUBURBAN GARDENING.

As a rule amateurs are very fond of their gardens, and I well remember once hearing one of them say, that if there was one thing more than another that he had striven to gain a knowledge of, it was that of forcing *Sea-kale*, *Asparagus*, and *Rhubarb*; there was so much gratification at the result of his efforts, not only because he was successful to a degree which surprised him, but because he was able to enjoy a dish of these delicious vegetables from his own garden fresh and good. Now his garden, to my knowledge, had no walls, but was encircled by hedges, and close to a large town; it had an aspect facing south, and being in the shape of a parallelogram running east and west, there was an advantage taken of its position to shape out a border under the hedge of the northern boundary, and upon this border, among other things, grew the above-mentioned vegetables in patches suitable in size to the requirements of his family. The ground was deeply trenched and manured, spaces for each sort were allotted, and in the autumn the planting was carried out. The *Sea-kale* and *Rhubarb*, as well as the *Asparagus*, were purchased of a respectable nurseryman. The first was planted in rows 18 inches apart, and 6 inches from plant to plant. This to many may appear very close, but the roots were intended for forcing, and, therefore, not to be long where they were growing. The *Rhubarb* was also planted in rows, but 3 feet apart, and 2 feet from plant to plant; the *Asparagus* 1 foot from plant to plant, but in rows 18 inches apart. They were all

well attended to during the spring and summer, and well and frequently watered, and other attention paid to them, so as to encourage the most luxuriant growth possible, and I need scarcely remark that the plants quickly established themselves, and formed most excellent roots, as well as matured some well-formed crows, which was the object aimed at in order to carry them through the severe ordeal of forcing.

Having a large three-light deep frame standing on a foundation of bricks just rising out of the ground sufficiently to protect the wood of the frame from sinking into the earth and rotting, and keeping a horse as very many amateur gardeners do, there was an opportunity of making manure, which was collected from the stable from time to time, and other materials, such as refuse vegetables, were mixed with it. When sufficient had been obtained to make up a bed, and through lying some time the rank heat had passed off, the whole was thrown into the three-light frame, well shaken up together, and when the heat had risen up so high that there was no fear of its becoming stronger, a bed of common garden soil was put over it to the depth of a foot; when this had become mildly warm the plants were put into it, one light being devoted to each kind of vegetable, and as the planting went on more earth was added to those roots that could not find depth enough without going down into the manure. I ought to say that after the bed was made up each light was partitioned off by placing boards under every rafter inside of the frame, so that each vegetable might be more easily treated according to its requirements, so as not to interfere with its neighbour. All was well watered after the soil had been properly placed round each root as it was planted, and I may say that they were planted thickly, but not all of the same height; for instance, the Rhubarb, which throws up large stems and leaves, was planted lower than either of the others in order to allow it the necessary room.

After all was done a trial stick or two was thrust into the bed in each light, and the whole frame shut up and covered over with mats to keep out the light. At intervals of a few days the bed was examined, and the heat ascertained by the trial stick. In the meantime the collecting of heating material was going on, and when the heat of the bed was going down this was applied as a lining to the outside. When the plants began to make growth a little air was given in mild days or when the heat was too strong, and which I may say ought not to exceed 60° at any time. Air was given night and day, but not in such quantities as to lower the temperature perceptibly. In order to well blanch the Sea kale it was always kept dark, but the Rhubarb and Asparagus were gradually inured to the light so as to have them of their proper colour and flavour, a precaution many do not take, but which would be an improvement, for anything that can be forced and brought to its natural colour approaches more nearly its natural flavour. If preferred otherwise they will grow as well, but not possess their natural qualities.

Whenever either of these vegetables appears likely to grow faster than what is needed for consumption, the growth may be modified by giving a little more air, though the temperature ought not to fall below 50°. All of it will not come at once, and if properly managed as above directed the produce will continue and gradually come in and last a considerable time; and the best of this plan is, that when the bed for either sort is exhausted it may be taken out and renewed, and fresh plants put in, and so continue until the season is advanced, so as to produce the same things outdoors naturally. There are many amateurs who may do as this enthusiastic person did, and reap the benefit of their own labour, and that is my reason for giving details.—THOMAS RECTOR.

THE BEAUTIFUL AND USEFUL INSECTS OF OUR GARDENS.—No. 27.

Owing to the mild weather we have had in October and in part of November, and also through the absence of those drenching rains which occasionally about this season play ad havoc with the flower beds, we have observed in many places a particularly fine display of autumn blooms: hence insects of diverse species just about this time are glad to desert the barren prospects of the fields, lanes, and woods, and seek supplies of honey from the flowers of the garden. Both by day and by night during November we see these passing hither and thither on the wing, the day visitors being mostly bees, flies, and butterflies; the night ones different species of moths. The ghostly way in which some of the moths appear and disappear in the twilight is rather startling to certain nervous people, and sometimes a slightly-bewildered individual, whose supper has been too much for him, may strike against your face as you walk along a path. Though you know there is nothing to be alarmed at, it is not surprising if the peculiar feel of the moth's furry body gives you a start for the moment. Had it been an autumn-prowling beetle—for such are still abroad—his hard wing-cases and bristly legs would have made

his presence manifest. Not a few of the moths one sees abroad at night, and which belong to the large group of the Noctuidæ, have eyes which glitter at night with a luminosity which has not yet been accounted for. I can hardly, for my part, regard it as being of a phosphorescent character. When an entomologist seizes one of these, and beholds it roll towards him its "fiery orbs," who can wonder if he hesitates a little ere he drives a pin through its body, or immures it in the stiding box from which no prisoner comes forth alive? Moths, as I have observed, resort to the flower beds of autumn almost throughout the month of November, unless the weather prove severe enough to force some to their winter quarters, and cut off the lives of the rest. Should some wall or tree in the garden be graced (or disfigured?) by a growth of Ivy, this plant proves a superior attraction even to the flowers of the conservatory. The honey its singular-looking bloom affords has a retinue of admirers and eager sippers, until it is positively exhausted. One still sees this plant allowed to grow freely, though most gardeners of the old and new schools agree, for a wonder, in its condemnation, some regarding it as a covert for insect pests of various kinds, some also going so far as to assert that it diffuses a peculiar aroma or influence not exactly describable, which is hurtful to other plants growing near.

Two monster moths should have been mentioned before, which seem to have a liking for the garden precincts. They form the half of the genus *Catocala*, as known in Britain; the other two, familiarly called the "Crinsons" by collectors, are principally taken in Hampshire by the attractions of sugar. The moth which has received the not-very-appropriate name of the "Clifden Nonpareil," (*fig. 134*), also occasionally called the Great Blue Underwing (*C. Fraxini*), is of great, and perhaps it might be said inexplicable, rarity, since there is no obvious reason why it should not be as abundant as its relative *C. nupta* (*fig. 135*). For once we cannot accuse entomologists of having-hunted a species down, since it appears to have been always scarce. It is certainly puzzling when solitary specimens of so large a moth turn up, for it is a natural conclusion to draw that where there is one of a species there ought to be more. In the case of *C. Fraxini* we have a long list of single captures, several of these having been made near London, as at Hammersmith and near the Regent's Park. Some hint that a moiety of these records are open to suspicion, seeing that the moth can be got from France or Germany for a shilling, while the value of a *bona-fide* Britisher may be £2 or £3. So much for the fancy. The grey upper wings of this species, though pleasing to the eye, are not particularly remarkable; the distinctive markings are on the lower pair, which are black, with a band of blue or bluish grey and a narrower marginal band of white. On the Continent the caterpillar is stated to feed upon fruit trees—not, however, to an injurious extent, and also on the Poplar and Ash. Mr. Newman considers it presents a curious example of mimicry or seeming resemblance, as it is furnished with a series of small fleshy appendages on the sides of the body, which resemble the rootlets of Ivy, and give to the whole caterpillar the appearance of one of the twigs of that plant resting on a branch. The colour also agrees, as this is usually brownish grey with a few specks of a deeper tint. It is also remarkable for having an additional segment to its body beyond the average number. The Red Underwing (*C. nupta*) I have frequently seen sitting on palings near London, with the colour of which the grey upper wings harmonised capitally. At other times individuals will be seen on trunks of trees. It is not by any means a timid species, and I once noticed one of these moths by a rather bustling roadside near Brompton. The narrow winding lane which runs along the side of Holland Park, serving as a footway between Kensington and Netting Hill, used to exhibit *C. nupta* sometimes a few years ago. Though in passing along the lane persons would come near to the palings they would rarely perceive a moth reposing thereon, so little observant are the majority of passers-by. Mr. Newman thinks the caterpillar feeds on the Crack-Willow chiefly (*Salix fragilis*); but I do not believe the species grows in that locality, and imagine that several species of Willow and Poplar are resorted to by the parent moth when depositing eggs.

This caterpillar much resembles that of *C. Fraxini*, differing, however, in having two irregular stripes extending along the back. During the day it clings to the bark of the tree with the head pressed down, and it is difficult to remove it without injury. Towards evening it moves towards the branches to feed. The cocoon is spun amongst the leaves, or placed within a cavity, in June or July. This is of a slight

texture, and allows the chrysalis to be seen, which is covered with a mealy substance of a purple colour. The moths of both *C. Fraxini* and *C. nupta* quit the chrysalis in August and September. This autumn I saw individuals of the latter species in October, later than the average; the caterpillars were probably retarded in the spring. In wet weather one of these moths will now and then creep into a conservatory, when its "autumn manoeuvres" at dusk soon deprive it of its beauty by its collisions with the glass. Other moths may be specified that are actually November visitants, some of them elegantly marked, and some meriting the adjective "beautiful." In some sombre hues prevail, which seem to agree with the dullness of the season. Thus, we may see about the Ivy, or on flowers at night, the moderately-sized moths called the Red-line and the Yellow-line Quaker (*Orthosia lota* and *macilenta*), quite models of Quaker-like propriety in garb, if not so quakerish in abstemiousness, for they have been noticed feeding greedily on the luscious droppings from the berries of the Yew. The latter species is notable for having a very beautiful caterpillar of a rich brown, studded over with small points, and with five longitudinal stripes. It has been taken on the Beech. The Dark Chestnut, an allied species (*Cerastis spadicea*), is still more sombre than the Quakers. Sometimes the caterpillar is found on Honeysuckles, more usually on low plants.

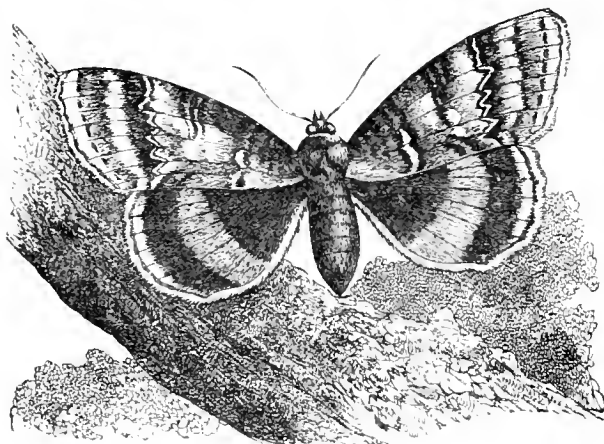


Fig. 134.—*Catocala fraxini*.

The Dotted Chestnut (*Dasyampa rubiginea*) is one of those moths, formerly of great rarity, now gradually becoming commoner, though still viewed as a prize by the insect-hunter; and it obtains its value partly from its beauty, since the markings are both singular and handsome. The vernacular name gives us an inkling of these, the Chestnut in some specimens savouring of reddish, and in others being purely brown; the dots are black. As the hairy caterpillar is found on the Apple, and also on the Oak, according to some, the species is likely to occur about orchards, and, like the "Quakers," it is susceptible to the attractions of Yew and Ivy. In Ireland the moth is said to be more widely distributed than in England. A rather more showy moth, taken at rest by day in gardens during October and November, is called by the ridiculous name of the Gray Shoulder-knot (*Xylina rhizolitia*); after dark it moves off to obtain sweets, and is often netted by the entomologist at his sugary snares. The grey wings are relieved by a commingling of black spots and wavy lines of the same colour; the head and thorax are much lighter in colour than the body. In the spring some, if not all, of these moths reappear to deposit eggs, a circumstance not uncommon among the autumn species. The pale green caterpillar feeds on the Oak, and probably on the Lime in gardens and parks.

In the last months of the year, individuals of the December Moth (*Pecilocampa Populi*) emerge from the small black cocoons constructed by the caterpillars of the species upon the trunks and branches of trees. The life in the chrysalis condition is liable to be remarkably prolonged. It is not unusual for two years to elapse, and there have been cases where moths have come out four or five years after the spinning-up of the caterpillar. This is obviously a natural provision to guard against the destruction of a species which comes forth in the imago state during a season of the year when unfavourable

and ungenial weather often prevails. The moth is suited in its garb to the winter, having smoke-coloured wings crossed by pale wavy bars; the head, thorax, and body are also smoky brown. The beauty in this species shows itself in the caterpillar stage; these gaily-coloured creatures which take especial delight in basking in the sun, showing themselves during the day on the trunks of Oak, Poplar, Lime, and other trees; but they are not sufficiently numerous to do harm in our plantations. The colours are a commingling of black, gray, yellow, and white, while from the sides of the body grow bunches of long hairs. A theory has been propounded that these colours become modified so as to suit the varied tints of the bark and lichens of the trees. The moth has, like others of the family of the Bombycina, no *penchant* for sweets natural and artificial, and though it hides in nooks about gardens, it visits

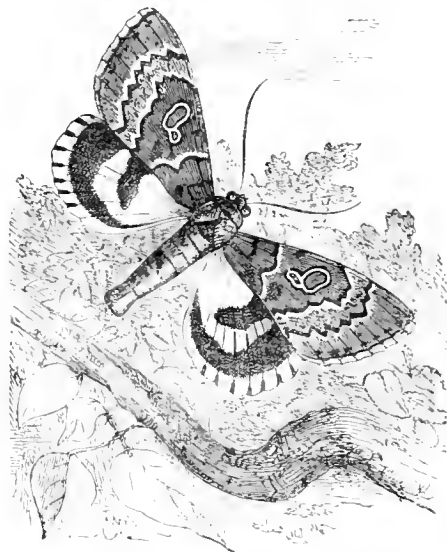


Fig. 135.—*Catocala nupta*.

these chiefly because they afford better shelter than the country when bare of leaves. Or it will, of course, sometimes happen that the caterpillar has fed-up on a tree close at hand, or within the garden boundaries.—J. R. S. C.

DOINGS OF THE LAST AND PRESENT WEEKS.

HARDY FRUIT AND KITCHEN GARDEN.

THE work is much the same as that detailed for the last two weeks—digging borders, trenching kitchen-garden quarters, and, above all, seeing that everything is neat and even. Though plenty of rough work is being performed, it is just as well not to let everybody know it by the confused state of the garden. We shall prepare the ground for Carrots directly, as without special preparation a crop of decent roots cannot be obtained. The ground is trenched about 18 inches deep, at the bottom of the trench a layer of manure is placed; the new earth from this depth being turned-up on to the surface is free from any maggots or grubs, and as a rule large sound roots are obtained.

ORCHARD HOUSE.

Our practice of turning the trees outside for a few months entails more labour than if they were allowed to remain under glass. At present the trees are plunged to the rims of the pots in cocoa-nut fibre refuse, and a quantity of the same material is at hand to place over the surface of the pots. Should a severe frost set in, it is just possible that in wet districts Peach and Nectarine trees in pots would suffer from being turned out in the way they are treated here. Wet would certainly be more injurious to them than frost. For instance, a Scotch paper gives the rainfall for October in a certain district of Dumfriesshire as 12 inches; our rainfall during the same period is not a fourth of this amount. It is clear from this that if the readers of these "Doings" scattered over the United Kingdom are to be benefited by the perusal, they must take all the surrounding circumstances into consideration. If the trees are in good condition, and making progress, the young rootlets will be penetrating the top-dressing, and will grow freely into the cocoa-nut fibre placed over the surface.

The Chrysanthemums contained in the house have flowered rather earlier this year, and will be removed at least ten days

earlier. The pot Strawberries have been removed to the shelves in the orchard house, and they are in capital condition, neither having suffered from too much rain or from frost. The pots were standing upon a dry bottom out of doors, and freely exposed to sun, wind, and rain. Our own belief is, that the longer the plants remain out the better are the crowns matured. The leaves are also quite green, and more healthy than if the plants had been removed under glass a month previously. As the pots were standing on a bottom of bricks no worms could find their way in; if they do, in all probability they will choke the drainage. Worms can be removed from the pots either by turning the plant out, or watering it with clear lime water, when the worms will come to the surface and die, or they will die underground. If the pots are dirty they should be washed, as not only are dirty pots an eyesore every day, but the plants will not thrive quite so well in them as they will in clean pots.

MUSHROOM HOUSE.

This structure will now be useful not only in supplying Mushroom, but also for forcing *Sea-Kale*, *Rhubarb*, *Chicory*, &c., for salads. A good temperature is 55° at night, and there may be a little rise by day owing to the higher outside temperature in the daytime. A succession of *Sea-Kale* and *Chicory* is kept up from fresh batches of pots being introduced at intervals of from two to four weeks, according to the demand for them. Eleven or twelve-inch pots are the sizes used, and into these the roots are potted quite thickly, allowing the crowns to protrude just above the soil. We have just lifted all the *Sea-Kale*, and selected the crowns that are fit for forcing, potting the roots at once, and plunging the pots in cocoanut fibre refuse out of doors, from whence they are removed to the forcing house as required. Besides the *Chicory* another wholesome salad that may be treated in the same way is the common *Dandelion* roots. A stronger-growing and improved form of it is cultivated in France, and where a variety of salad is in request is an excellent addition to the usual subjects grown for this purpose. The pots when in the forcing house should be plunged in some moist material; we find cocoanut fibre refuse just the thing for it. A bed such as decaying manure and leaves causes too much heat, and the roots are thereby injured.

Attention must also be given to continue a supply of Mushrooms, and to this end the very best spawn must be used. It would be quite out of place to recommend dealers; but it is quite certain that on the quality of the spawn depends much of future success. Growers must in this remember the old and wise saying, "Penny wise and pound foolish." A fresh bed must be made up every six weeks if a continuous supply has to be maintained. Occasionally a bed will continue to bear for two, and even three months; but it must not be depended upon to do this. We knew a gardener who was very particular when saving the horse droppings for his Mushroom beds to fork out all the rough litter from amongst them, and when the heap was under preparation in an open shed no pains were spared in order to have it in the best condition by frequent turning; and yet under the most favourable conditions his Mushroom beds were frequently of inferior quality, and mostly small, plenty of "buttons," but few for broiling. It is certainly best to use the dung in a more rough state, add to it a little turfy loam; and we have had good results from a portion of fresh cow manure being added to the heap, and thoroughly incorporated therewith. A thermometer for testing the bottom heat should always be kept for use in the newly-made beds. The hand is an uncertain test, and serious mischief is caused by spawning before the bed is ready—that is, before the heat has subsided to about 80°.

GREENHOUSE AND CONSERVATORY.

During the last three or four weeks *Chrysanthemums* have been holding regal sway, but they are now being rapidly thinned out. As the flowers fade the plants are cut over, and the pots removed to a cool airy house to produce a supply of cuttings for next season's bloom. The young shoots are very frequently attacked by aphid, but this must be destroyed at once either by fumigating or by dipping the plant in diluted tobacco water. The *Chrysanthemum*, though quite a hardy plant, is very easily injured by insect pests.

To take the place of *Chrysanthemums*, *Camellias*, *Cinerarias*, *Cyclamens*, *Tree Carnations*, and *Cape Heaths*, such as *Erica byemalis* and *E. melanthera*, are very useful at this time, and the flowers of all of them are used for bouquet-making and decorative purposes indoors. *Epiphyllums* in variety, when brought on in a little heat, are also a distinct and very beautiful feature; they are, moreover, most effective when worked on the *Pereskia* stock on stems from 6 to 18 inches high. With a selection of the above, supplemented with the usual bulbous roots that are imported from Holland, and, of course, all other plants which will come in from the forcing houses, such as *Spiræa japonica*, *Lily of the Valley*, *Deutzia*, &c., there need be no lack of an abundant floral display all through the winter and spring months.

Now, just a word or two as to the treatment the above selection of plants require, and first the *Camellia*. Keep the leaves free from dust by sponging, and avoid a parching atmosphere,

such as may be caused by the hot-water pipes being overheated on a frosty night. Should a frost set in the fires are started, and to be safe a much higher temperature is maintained than is necessary, and, should the frost continue, care must be taken not to have more heat in the pipes than will be sufficient to resist the entry of frost; more than this may cause the flower buds to drop. *Cinerarias* and *Primulas* are liable to damp. Remove all decaying leaves from the base of the plant as soon as they are perceived, and fumigate with tobacco smoke as soon as green fly is observed on the *Cinerarias*. In watering be careful not to wet the foliage. Large handsome specimens are obtained by tying-out the flower stems. *Cyclamens* are also very liable to be injured by damp. A drier atmosphere seems better adapted to them, and they throw-up the flowers better if the night temperature does not fall lower than 45°. *Tree Carnations* also flower more freely in the same house. In an ordinary greenhouse temperature where the frost is merely kept out the flowers do not open well, and some of the very best sorts will not open at all. The plants are also subject to the attacks of aphid, and if, as is sometimes the case, it is not convenient to fumigate, the insects can easily be removed with a small brush. The weather is often unfavourable for working out of doors this month: tying, training, and cleaning plants may be attended to, making sticks and labels, pegs for bedding plants, and all such work should be brought forward when occasion offers.—J. DOUGLAS.

TRADE CATALOGUES RECEIVED.

James Backhouse & Son, York.—*Catalogue of Hardy Trees and Shrubs, including Conifers.*

Thomas Sampson, Preston Road Nurseries, Yeovil.—*Catalogue of Gladioli.*

R. Parker, Exotic Nursery, Tooting, Surrey, S.W.—*List of Double-flowered Pyrethrums and Miscellaneous Plants.*

Dickson & Robinson, 23, Market Place, Manchester.—*Catalogue of Select Roses, Winter and Spring-blooming Plants, &c.*

PROVINCIAL HORTICULTURAL EXHIBITIONS.

[SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held. Although we cannot report them fully, we shall readily note anything especially excellent, and we wish for information on such specialties to be sent to us.]

	DECEMBER.	DECEMBER
Manchester	1 and 2	York
Birmingham (Chrysant.)	1 and 2	1, 2, and 3

TO CORRESPONDENTS.

* * * All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

COLORLED PLANS (H. J. R.).—There would be no utility in them. An engraving in outline of a bed with figures referring to the plants to be placed there, their colours and heights, is much more useful.

POTATOES.—SUTTONS' HUNDREDFOLD FLUKE.—"I have grown it this year with other varieties—viz., Breese's Peerless, Rivers's Ashleaf, and Early Rose. With the exception of the Hundredfold they have all been badly diseased. It certainly has been touched, but to a very trifling extent. It has been with me an enormous cropper, and for cooking has proved itself quite the reverse of what your correspondents state."—RICHARD J. SORLEY, *Cheshire*.

[It appears that this variety differs in its merits in various districts. We cannot insert any more communications on the subject.]

LILIAM CANDIDUM LEAVES VARIEGATED (H. F.).—They are strongly streaked with yellow, and you say the variegation is permanent. We cannot say that this Lily, or any white-flowered plant, is improved by such variegation. The flowers are rendered more conspicuous by dark foliage.

IMPORTING FERNS (*Shin Hall*).—Any closely-covered box would do for protecting Ferns during a seven-days voyage. They are far more enduring than flowering plants.

GERANIUM SEEDLING TRIPLE SEED-LEAVED (A Constant Reader).—The occurrence is not common, but is probably more frequent than is supposed, few caring to notice such things. It will not make any difference to the growth afterwards.

WINTERING GERANIUMS IN A CELLAR (*Flitcher*).—The plants will winter safely in pots in a cellar from which frost is excluded, but they would not do so well in a warm one, though if the temperature does not exceed 50° they would not be excited into growth prematurely; if it exceeded 50° they would probably grow, and shoots made in the dark are not good. It is quite true that *Geraniums* may be wintered tied up by the heels in a cellar, but they do better with the roots placed in dry sand. All the leaves should be removed,

and the plants dried before being placed in the cellar. They should be removed from the cellar in March and potted in moist soil, not watering much at first, only keeping moist, increasing the supply of water with the growth.

FLOWERING PLANTS FOR A NORTH BORDER (A. B. P.).—*Ajuga orientalis*, *Allium triquetrum*, *Aconitum napellus* and var. *blandum*, *Arabis alba*, *Aubretia grandiflora*, *Convallaria majalis* (Lily of the Valley), and its varieties gold-striped, rosea, and plena; *C. multicolor*, *C. rosea*; *Cyclamen hederifolium* (neapolitanum), *C. Cotta*; *Digitalis spectabilis*, *Helleborus niger*, *Hemerocallis flava*, *Hepatica angulosa*, *H. trilobata* in variety, *Hypericum calycinum*, *Meconopsis cambrica*, *Mimulus cupreus*, *Myosotis dissitiflorus*, *M. raietensis*, *Omphalodes verna*, *Papaver nudicaule*, *Primula acaulis* vars., *Palmatoria angustifolia*, *P. officinalis*, *P. sibirica*, *Ranunculus acris*, *R. repens*, *R. nemorosus*, *Sisyrinchium grandiflorum*, *Spiraea Filipendula plena*, *S. japonica*, *S. palmata*, *Trollius europaeus*, *T. napellifolius*, *Vinca major* and *V. minor*, and Violets of kinds.

LILICUS REPOTTING (T. H.).—In potting these you will remove the stem and any roots adhering, which will leave you the bulb proper with its true roots, and these are not on any account to be removed, but preserved entire, merely taking away any loose soil between them, such as can be removed without injury to the roots, and shifting into a larger size of pot with the roots intact.

CHASSULA COCCINEA REPOTTING (Idem).—Your plant being very much pot-bound, we should at once shift it into a pot a size larger, or shifting may be deferred until February, affording good drainage, and watering carefully until the roots are working freely in the fresh soil. Equal parts of sandy loam, loam and peat, half a part old cow dung or leaf soil, and one-sixth each silver sand, pieces of charcoal, and broken pots answer well. For the end inside wall of the cool greenhouse you could not have anything better than Lapageria r sea, it and the white variety also forming a capital contrast.

CAMELLIA ELEGANS BROWNED (W. Jones).—We think that the composition of which you enclosed a sample would have the effect you mention. It contains carbolic acid.

SWEET NANCY (C. R.).—We do not know any plant named "Sweet Nancy," but *Saxifraga umbrosa*, which is called London Pride, or None-so-pretty, has its last name sometimes corrupted into Nancy Pretty.

APPLE SHOOT DRYING (A. L. C.).—They are severely infested by the scale. Paint the branches and twigs infested with a creamy mixture of soft soap and sulphur in water.

EARLEY'S NOVEMBER PLUM.—In your notice of the Fruit Committee Meeting, page 421, a Plum is mentioned under this name. You say it is a large Ballace, which is quite right. I believe it to be identical with the large Ballace that has been grown in the neighbourhood of Ilford for perhaps fifty years; and as the notice of it appears in your Journal, I would like to ask Mr. Earley through the same medium why it is called Earley's Plum.—J. DOUGLAS.

LATE DESSERT APPLES (G. Bingham).—The following six succeed as dwarfs:—Adam's Pearmain, Braddick's Nonpareil, Cockle Pippin, Golden Reinette, Margil, and Sturmer Pippin.

THE BURR KNOT APPLE.—"Mr. John Scott, of Merriott, Somerset, can supply it. If H. P. has not the following dessert Apples, I can strongly recommend them to him:—Cox's Orange Pippin, Ribston Pippin, Carraway Russet, Boston Russet, and the Blenheim Orange. The last is good for dessert, and excellent for sauce. It should be gathered before it is ripe, or it may be woolly.—W. F. HADCLIFFE."

CONCORD AMERICAN GRAPE.—A Guernsey correspondent asks what is the best way to cultivate it. He has it in pots in a cold vinery, and has seen it planted out, but the results are not satisfactory growth. In each case the vines were weak and the fruit did not ripen. His plants are two years old.

PEACHES AND NECTARINES ON EAST WALL (J. H. D. C.).—We do not know in what way we can be of service to you, not knowing what points of culture you require information about. If regarding fruiting we should remove them at once to a wall with a south aspect, lifting carefully, and preserving as much soil as possible about the roots. If furnished with bloom buds it is likely they will bear on the south wall next year, provided they are protected from frost. It is difficult to suggest a remedy for a deficiency of fruit on Peach trees under glass. Something is vitally wrong—either the trees are too far from the glass, or the light is obstructed by objects intervening between them and the glass. The cause may be the soil being poor and light, overtopping, &c. Give us some data, and we shall be glad to assist you.

STRAWBERRY-FORCING FOR MARKET (Z. N.).—For the London market the plants should be started early in January, so as to have the fruit ripe at the close of March or beginning of April. The earlier in the season it is produced the higher its price, but then the crop will be less; so that though the prices are higher the difference in the proceeds from early and moderately early crops is not very great. The beginning of January we consider quite early enough to commence forcing Strawberries for fruit in March, having a second batch to come in in April, and a third one early in May. Only fine fruit command high prices, and such should be aimed at rather than the production of a quantity of small fruit which does not pay, fetching low prices and not meeting with a ready sale. There is generally a sure market for any quantity of fine fruit, but successful supplies are best, arranging with a fruiterer to take them. The fruit is sold by salesmen or agents. We do not know anyone doing business entirely in Grapes or Strawberries, but you will meet with those willing to take any quantity of fruit by an advertisement, or by applying to some of the principal dealers in Covent Garden. Strawberries and Grapes may be grown to pay if well attended to. The fruit is packed in shallow baskets or punnets, each fruit separate in a leaf, or in shallow thin deal boxes, so as to hold one or at most two tiers of fruit; but from the dealer you arrange to supply you, you will have the requisite instructions. President is a kind of good size and travels well.

GREENHOUSE HEATER (Perth ed.).—You would require several such contrivances, and these would be too much moisture given off. Write to Mr. Shrewsbury, in Innonger, Lower Norwood, and ask him for information.

CUCUMBERS SPRINKLING AND VENTILATING (G. S.).—They will require only moderate syringing during the dull winter months. A light sprinkling in the morning, and another in the afternoon, will be sufficient; and in very dull weather the sprinkling of the paths and every available surface once or twice a day will give you all the atmospheric moisture required. The pipes, we presume, have evaporation troughs. As to giving air, we can only say, Give it in mild weather, a little every day whenever opportunity offers, not firing with a view of giving air in very cold weather but with sun, but a little in dull

weather occasionally is good, taking care at all times to avoid cold cutting currents. From plants sown in October you ought to cut fruit in February, and, if they do well, in January. For fruit early in spring the seed may be sown about the 15th of December, but we should not do so, as you have other plants, until the turn of the days.

VENTILATORS IN GREENHOUSE BACK WALL (H. P.).—The result of having open ventilators at the back of your greenhouse communicating with the potting shed will be, that in severe weather you will be in danger of having the plants frosted; or if not that, which will be dependant upon the heat you can command by the heating apparatus, the ventilators will waste the heat given off by the hot-water pipes. Have them fitted with a three-quarter-inch frame and a door hung on pivots or a swivel, and with a cord the doors may be closed or opened at pleasure.

LIQUID MANURE FOR CHRYSANTHEMUMS (Bob).—Your proportions are very far too large. One pound of guano and a peck of soot to thirty gallons of water are the proper quantities.

GAS HEATING (J. B.).—The apparatus will, like any other, be injurious to the plants unless the products of combustion be carried out of the house.

NAMES OF FRUITS (J. Green).—Beurré Diel. (C. P., St. Leonards).—Marie Louise, very small. (J. G. Pickering).—Apples: 204, 209, Blenheim Pippin; 193, Dumelow's Seedling; 177, Winter Greening; 210, Nonpareil; 150, Wyken Pippin. Pears: 111, Duchesse d'Angoulême; F. Uvedale's St. Germain; J. H. Knight's Monarch; L. Sussette de Bavy. (W. B. B.).—19, Dumelow's Seedling; 15, Nonpareil. The others not recognised. (William Earley).—13, Barcelona Pearmain; it ought to keep longer than November. We cannot recognise 11 and 12. The seedling is, as you say, "not quite up to the mark." (L. A.).—1, Knight's Monarch; 2, Sussette de Bavy. (M. N. O.).—Pears: 1, Beurré Diel; 2, Chamonville; 3, Easter Beurré. Apple: 1, Wormsley Pippin; 2 Not recognised. (C. H. S.).—Passo Colmar. (Cambridge House).—1, Easter Beurré; 2, Belle après Noël; 3, Bergamotte Espère; 4, Blenheim Pippin; 5, Scarlet Nonpareil; 6, Knight's Monarch.

NAMES OF PLANTS (J. C.).—The specimens are small, but appear to be—1, *Selaginella Martensii*; 2, *S. denticulata variegata*; 3, *S. Lyallii*; 4, *S. helvetica*; and 5, *S. uncinata* (caesia).

POULTRY, BEE, AND PIGEON CHRONICLE.

CRYSTAL PALACE POULTRY SHOW.

"Swifter far than summer's light,
Swifter far than youth's delight,
Swifter far than happy night,
Art thou come and gone."

THE 1400 pens of birds are gone! Some to new homes, some to their old ones. Mr. Billett has walked along his three miles of pens, and carried the ten tons weight back to Southampton; the Secretaries are putting their accounts in order; the exhibitors are making out the best routes to Birmingham for the journey before them to-morrow; and the Palace is left alone!

The classes we reported on last week were done so fully that we could not possibly criticise the Game, or the Hamburgs, or the Waterfowl, to do by them as we had done to the others, and consequently we were reluctantly compelled to wait to this week to speak of them.

The HAMBURG classes were very beautiful. There were 138 birds in all, and we hope some have found new southern homes, and will appear at some of the Kentish shows now coming on so thickly, for Hamburgs generally at these meetings are poor—very poor. At the Palace we thought the Golden-pencilled and the Black the best classes, though some of the Golden-spangled were very grand. The first cock was a great beauty, good in comb and ears. Second also good in all points. Third a fine bird, but a shade wrong in comb. 1471 (Hyde) a smart bird. In hens the cup bird was only in at £3 3s., she was a nice one, with a good deal of dash about her; but we liked the second quite as well. Third, too, was a smart hen. 1485 (Vouchley) good; 1484 (Pattison) splendid colour, but a shade discoloured in ears.

In *Silver-spangled* cocks the first was an exquisite bird; if he had a failing it was in comb, still we thought he won well. Second rather clondy in tail. The third was better, only his comb was rather rough. Still we think these pens could have changed places. 1506, very highly commended (Robinson), a capital bird. In *Silver-spangled* hens the winner was very good, her spangling very fine; still the second must have run her closely. Third, too, wonderfully good. 1515 (Mitchell) beautifully marked; as was 1525 (Ashton & Booth). In *Golden-pencilled* cocks Mr. Beldon won the cup with a dashing bird, which ran in first easily. The second was also a very good bird, of good colour and comb. Third very fair, but not up to first or second. 1527 (Speakman), very good in lobes; also 1534 (Walker), and 1537 (Robinson). In *Golden-pencilled* hens the first was a most exquisitely pencilled bird, but a little faded in colour. The second was well and distinctly pencilled on the body, but rather clondy in tail. Third was very rich in colour, but somehow we did not much fancy his markings. 1549 (Beldon) was a good bird, well shown; 1551 (Woodworth) well pencilled, and good in colour. *Silver-pencilled* winning cocks were good. The first had a capital tail, and was a stylish bird; second also had a beautifully-edged tail, and the best comb; third also good. 1557 (Norton) a capital bird, and almost crept into the list, we should say. In hens the first was again only in at £3 3s.; she was a nicely shaped bird, but a little too heavy in marking. Second we liked quite as well. Third a

nice clearly marked good-combed bird. 1566 (Ellis) a good pullet.

Black Hamburghs made two very beautiful classes. The first cock was gorgeous in colour, and in all points as perfect as any bird we ever saw. Second, too, a smart bird, with a great deal of style. Third was good in colour, but he carried himself badly. 1585 (Serjeantson) we preferred, or even 1588 (Beldon). The hens were very excellent, as a lot we thought them as perfect as we ever saw a class. We liked the second and third quite as well as the first, but they were three well-shown good birds, and it was a close thing between them. 1590 (Cutlack) good in shape and colour; 1595 (Gladstone) a smart bird, and so was 1606 (Marler).

SPANISH came to the front much better than we expected. We have seen these classes so badly filled of late that it was quite pleasant to see close on seventy birds, and all of very good quality. Mr. Beldon took the cup with a good bird—fine in face, and good in comb. We liked the third as well as the second; he will beat him in a week or two when he has his plumage better. 1209 (Rodbard), a bird of quality, but not well shown. The winning hens were very fine. The first was good, and will be better yet. Second good also, but wants time. Third in the best condition of the lot, but lacking the genuine quality of the first. Highly commended 1222 (Jackson), a good hen. Mr. Darby's pen was empty. The cockerels were an admirable class. Miss Browne won cup and second with two beautiful chickens. Third had a fine smooth face, and was in good plumage. 1227 (Jones) a nice cockerel, and will come to the front yet. 1249, very highly commended (Browne), a very fine bird with a large face. The pullets were fifteen in number. The first-prize bird was beautifully shown, and had a capital face and comb. The second was a lovely bird, well got up; her face was large, and her comb in good show order. Third had much quality, but looked untidy. 1266 (Browne) very good, also 1256 (Parker) had a good face, and will make a fine hen.

MALAYS came nineteen pens strong. We will do a little sum here *à la* Mr. Hinton. Nineteen seven-and-sixpences make £7 2s. 6d., and as we are told a cup was provided for this class by a few breeders, we may naturally imagine the Malays have paid well this time, and so having done we hope next year to see two classes for Malays, and one of them for the White variety, just as an experiment, for most certainly the White pen which won this year is a very grand one. We admired the second cock immensely; his colour is very rich, and he is a Malay all over. Mr. Hinton must give him a better lady companion next time, and they will do then, though we do not at all wish to despise the fair one on this occasion—far from it. We would like to see the second cock and the third hen together; they would make a grand pair. The third cockerel was in very good feather. They were three good pens, but we think we should have made a sandwich, and put the White between the Browns! 1906 (Rooth) very good indeed, so was 1891 (Elliot); in fact there were lots of good pens, and it evidently shows us that it is all humbug saying Malays are so few and far between. They are like Silkies and Leghorns, and are those kinds of breeds that only want classes to bring them out, and we do think it too bad of committees never to give these breeds classes unless they have the greater part of the prize money provided for them.

The fourteen classes of *GAME* brought close on 230 pens; we think there should have been more, considering the value of the prize money given. *Black Red* cocks came first. Mr. Mathews took both first and second with two very good birds of grand style and colour. The second failed in one eye—his only blemish. Third was of good colour, but in not all trim. 1615 (Field) wants more time, and he will make a grand cock. 1616 (Pope) was a smart stylish bird. 1609 and 1614 (Aykroyd and Forsyth), two good birds with a great deal of style. In *Black Red* cockerels Mr. Mathews again to the front with a grand chicken, and this took the cup, and took it easily. This gentleman also took third with a bird much resembling the cup bird, though not quite so good in shape. The second was a smart cockerel with a good tail. Fourth a large bird, with rather heavy feathering. 1625 and 1628 (Beck), both good birds. 1636 (Pope), very stylish. In *Black Red* hens or pullets the first was a good bird with fine shape and of admirable colour. The second and third prizes again went to Stowmarket birds, and two nice birds they were, with little to choose between them. Fourth was a true Game hen, with good shape and fine colour. 1666 (Pope) a good smart bird! *Brown Red* cocks were twenty strong. The cup bird was very grand, and was claimed at £20. Second was also capital in all points. Third also a fine bird. 1676 and 1680 (Warde), both two good old birds, which want a little time yet.

In *Brown Red* cockerels the first was large and good; second a very fair bird; third smart, and bright in colour; fourth a useful bird, but not so good in colour; highly commended 1691 (Cock) a stylish bird, which will do some winning yet. There were twenty *Brown Red* hens or pullets also, and they made a capital class. Mr. Wolff won the cup with a hen with an immense deal of style, but there was something in her

colour we did not care for. Second was a grand pullet, and won the cup at Oxford we believe, and we should think was near doing it here. Third went to Mr. Wolff again, and we liked the colour better than we did in his cup bird. Fourth was a good chicken all round. We liked 1739 (Osborn) also, and 1747 (Chesters) very much indeed. There were only seven old *Duck-wing* cocks. The cup bird was very good in colour and hard in feather; second splendid in hackle, and good colour also; third a very nice stylish old bird. 1749 (Mathews) was a bird which in a month we shall expect to see winning. In *Duckwing* cockerels we liked the second or third quite as well as the first-prize bird, though the hackle of the last named was very fine. 1758 (Bell) not very good in colour, but smart in shape and carriage. In the pullet or hen class a beautiful pullet won, but the second ran her closely, being in better condition. The third was very good in all but feet. There was another pullet or two in the class which we liked as well as this third-prize bird.

Piles had two classes, "males and females." In the first of these we liked the second as well as the winner, taking him all round he looked better. Third was a heavy bird, but good in colour. Highly commended 1796 (Foster), good in carriage and tail. In the next class we thought the winners well placed. The first is very good, so is the second. We believe this was the bird we especially noticed at Tunbridge Wells. Third was a good bird, of nice colour, and very fine in neck and head. The two classes for *Black* or *Brassy-winged* only had seven entries between them—hardly encouraging for another year, and here Mr. Montresor owned five of the seven pens. They were not very first-class. We liked the third pullet better than the second, which was not of the proper colour. In the £5 5s. sale class the first were very good, and fetched a good sum at the auction. The pullet should have been in the list in the open class, we think. Good *Brown Reds* won second. Except these two pens we did not think much of the class, though the pullet in 1818 (Ashley) was a smart bird.

Ducks.—*Aylesburys* did not muster heavily—only a dozen pens. The cup pair were large, and good in bills and shape. We liked the third-prize pen much more than the second. We were sorry to hear that Mr. Fowler's wonderful drake, which we have so often had cause to mention, got hurt on the road, and was consequently out of it. The fourth were a pretty pen in shape, but rather tinted in bills. The *Rouens* made up for the *Aylesburys*, being very excellent in quality and quantity. The first were a fine pen. We fancied we saw them at Oxford with the cup card on them. The second also good, and closely pressing on the first. Third not so large. We think there was a better pen among the highly-commended ones, of which we especially liked 2789 (Pope), and 2808 (Dowsett).

There were twenty-two pens of *Black Ducks*. This breed (as far as winning is concerned) seems to be in the hands of Messrs. Kelleway and Sainsbury. First the one gets a cup, and then the other. It will be Mr. Sainsbury's turn at Birmingham. The cup pen here were certainly the smallest, but we liked the colour of the second and third best. Some day we hope to find the Judges going in for colour before actual size. All the highly-commended pens were good. We must say the Committee did their best to put them in a good light, and they succeeded. They looked as well as they did at Oxford, and we shall not easily forget the beautiful light they were in there.

Ornamental Ducks created quite a sensation. They always go down with the ladies. The first prize went to scarce and very beautiful spotted bills. Second to exquisite Mandarin, the Oxford cup pen we believe. Third very beautiful Carolinas. In this class Bahamas, Carolinas, Cayugas, Mandarins, and Call Ducks, all of wonderful quality, had to rest satisfied with high commendations. Next year, Messrs. Secretaries, to make your Duck department perfect, you must have a class for *Call*.

GEES and *TURKEYS* were very fine. We believe they were not weighed. If this was so we think it was a mistake—one of the only mistakes in this marvellously well-organised, ably-conducted Show. In *Gees* the winning Embdens were very large; so were the second Toulouse; the third were also a magnificent pair of Embdens. The three *Turkey* classes had some very fine rich coloured birds. Mr. Kendrick's single birds looked very weighty. In young *Turkey* cocks every bird was noticed, as also were five out of the seven hens. 2911 (Kew, not Keir, as in the catalogue) was very monstrous for a hen, and we thought the winning bird a bargain at the catalogue price of £14s.

This brings us to the end of the Show—a Show which perhaps may never be surpassed. We have done our best to criticise it honestly and fairly. Of course in a show like this some good pens must be overlooked, but we have tried to do justice to all.

The sales were very numerous. The cup *Dark Brahma* pullet was sold for £20, as was also Mr. Martin's cup *Brown Red* Game cock for the same sum. Lady Gwydyr's *Buff Cochins* in the £5 5s. class went for £12 10s. Mr. Braund's *Gold-faced Bantams* fetched £14 14s., and Mr. Vander Meersch's *Frizzled Bantams* were claimed for £10 10s. Very many pens changed hands from £5 5s. to £10 a pen. Mr. Graham had four *Pigeons* (*Dragoons*)

claimed for a total of £75, and Mr. Tegetmeier's Blue Dragoon found a purchaser at £15 15s.

In conclusion we must express our great sorrow on finding Mr. Hewitt's well-known face so conspicuous by its absence. We are indeed sorry to hear he is poorly again, and trust it is only a passing illness, and that we shall find him at Birmingham, and find him well.

PIGEONS (by "WILTSHIRE RECTOR")
(Continued from page 466.)

Trumpeters.—First a wonderful Black; second Mottled; third Black.

Owls (English).—First-and-cup thorough English; second, save in colour, as good as first; third a Silver, a very noble bird, but bars not quite so good as second. This was a strong class, and very high commendations very numerous.

Owls (Foreign).—First-and-cup a charming White, not over-clean. All the winners were White, and I am happy to say the two classes of Owls seemed distinct—one large and fine, the other small and elegant.

Turbits (Blue and Silver).—Turbits are clearly great favourites. First-and-cup, a beautiful Silver; the extra second as beautiful a Blue, bars raven. The whole class was excellent.

Turbits (Any other colour).—I can equally praise this class. Red shouldered, yellow-shouldered, and black-shouldered birds stood before me in rare excellence.

Next followed a long lot of good Magpies of various colours.

Runts.—May I ask that these birds be provided with larger cages next year?—they literally were cramped, and could not well turn. I plead in the cause of kindness, and also the birds would look better. (Mr. Wilson, please read, and when having read make a note of.)

Flying Tumblers.—A comparatively new class, and I was delighted that the Crystal Palace admitted them, for no Pigeons have more enthusiastic admirers. First and second, pretty Yellow Mottles, which looked the real thing, but the third was too much a Short-face. 3916, a good blood-red bird.

Antwerps (Short-faced).—Many of these birds struck me as being too heavy in build and wattle. The first (Mr. Ludlow's), was quite my idea of a show Antwerp.

Next the Homing Antwerps.—Many of these racehorse Pigeons looked "ready, aye! ready." The prize pairs were beautifully matched, whether they were Red or Blue Chequers, and their colour, no doubt, guided very much the Judges; indeed, I never saw more beautiful Blue Chequers. And oh, Pouter fanciers! Chequer as well as Mealy is a beautiful colour, and deserving of culture and class.

The four pair pens.—These large pens were removed a distance from the other Pigeons, and formed a striking feature of the Show. There were sixteen of them, and they only had one fault—viz., that the cocks will fight. First-prize Trumpeters, Laced Fantails, Jacobins, and Turbits. Mr. Serjeantson showed, but not for competition, a beautiful group of Fantails. In pen 4112 was a pair of Mealy Frillbacks, an unusual colour. Perhaps more strangers paused over these pens than any others, and, indeed, they are very attractive in spite of the pugnacity of their occupants.

Any other variety, like the toast of "The Ladies," always comes last, and, like the ladies, excels in beauty; but I have seen a longer class and a prettier—because longer for it was pretty, and, like the lady in Shakespeare's *Midsummer Night's Dream*, when taunted with her shortness, replied—

"Not so short but I can reach your eyes;"

so they reached mine, not to injure them, as she meant to do, but to delight them.

Such were the Pigeons at the Palace—a goodly Show of good birds, the Selling class included; for in it were birds that at some shows would have been prize birds in prize classes. The gratification which such a Show must have afforded to young and old, gentle and simple, must have been very great. I heard hundreds express admiration. I saw young folks gazing and gazing. The schoolboy longing, no doubt, for Pigeons which his "Governor" will first object to, then grumblingly assent to, and then in his turn admire and pet.

BIRMINGHAM POULTRY SHOW.—The time is rapidly approaching for the holding of this great annual gathering in the midlands. The Hall has been thoroughly renovated, and many improvements for the comfort of visitors added. The 2177 poultry entries exhibit a large increase, and the show of Turkeys alone will exceed the total of many local shows; whilst Brahma Pootras, which a few years ago were in the Variety class, now far exceed any other sort in numbers and importance, having ten classes, forty-one prizes, six £5 ss. silver cups, and over five hundred pens. The stock and poultry arrive on Thursday and Friday next, and already the leading implement exhibitors and seedsmen are filling up their allotted spaces. The telegraph wires have been extended to the Hall; and a branch post office will be opened there previous to and during the Show. The

railway companies have announced numerous excursions from most districts, and altogether the prospects of the success of the Exhibition never looked brighter.

THE COMING BRISTOL POULTRY SHOW.

MR. CAMBRIDGE'S efforts have been crowned with success, and there is to be the annual Bristol Show. But this is not all: it is to be Bristol Show with improvements. Thus there are the following additions to the prize list: In poultry, prizes for White Dorkings, cocks any age, and for hens any age; Brown or Partridge Cochins, for cockerels of 1874, also for pullets of 1874; for White Cochins, cockerels of 1874, and pullets of 1874; for Game (Brown-breasted Reds), cocks any age, and hens any age; Houdans, cock any age, and hen any age; also there are prizes for Leghorns any variety, cock any age, hen any age. The increase in the prizes for Pigeons is also very considerable. Thus this year for Carriers, cocks bred in 1874, and hens the same; for Pouters, Black or Blue cock, and also for hen; Barbs, any colour cock over one year, and hens the same; and Barbs of 1874, cock or hen. For Jacobins, Red or Yellow, cock or hen, any age; Turbits, Red or Yellow, any age, cock or hen; prizes also for Magpies, Dragons bred in 1874, and Antwerps of this year, any variety. There are Selling classes both for poultry and Pigeons, six for the former, two for the latter. By the new rules a cock and one or more hens, or two or more hens by themselves, may be sent in the same hamper; and several pens of Pigeons may be sent in the same package, provided they are properly separated and labelled.

Thus, then, I trust the coming Bristol Show will be not only a pleasure, as it always was, but financially a success. No doubt many pens of poultry and Pigeons will be sold at so large a Show at the end of the season, when surplus stock is apt to be home to "hang in hand."—WILTSHIRE RECTOR.

THE POULTRY-KEEPER.—No. 28.

PADUAS OR POLANDS (Continued).

The feathers of the back (*fig. 136*) and those of the breast are spangled at the end and barred beyond the middle under the

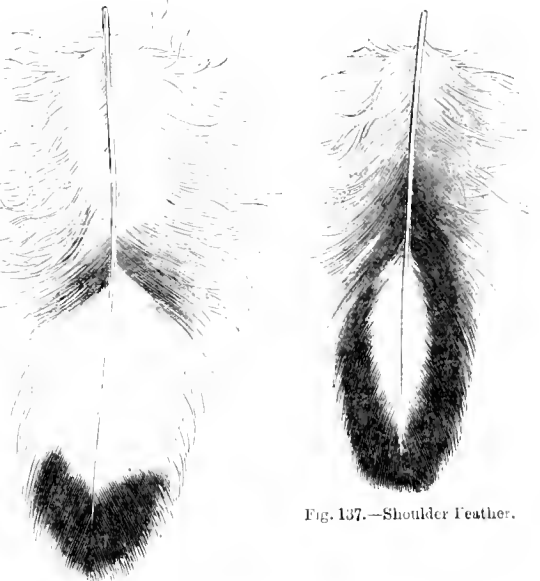


Fig. 137.—Shoulder Feather.

Fig. 136.—Back Feather.

overlapping feathers. Those of the shoulders (*fig. 137*) are white in the middle, surrounded by a deep black border. This border decreases in the covert feathers of the tail (*fig. 138*), and become slightly bordered in the large feathers of the wing and tail (*fig. 139*). The feathers of the sides and abdomen turn to down, and are of a mingled greyish colour. A collar of small, short, turned-up feathers surround the cheeks and the under part of the beak.

The eye is very large, and the pupil of a brick red. The leg is blue in all the varieties. The varieties are all alike in form.

The cock of the Golden and Silver varieties essentially differs from the hen in plumage. The crest, the hackle, the lance-shaped feathers, and the shoulders are of a variable shining

white, on which can hardly be seen some small black spots. The black characteristic spots only appear on the covert of the wings, and the large feathers of the wings have a border like those of the hen. The collar is black and very clearly marked. All the breast and under the breast should be spangled as in the hen. The small sickles are of a bronzed black, and this continues to the fluff, and in some degree to the longer feathers, until they begin to get white to the large sickles, when they are quite white and only black at the ends.

Black Cochins, but the result of some cross which will become more coloured after every moult. I, some years ago, imported from Shanghai a cock and two hens which were perfectly black, though not of a good shape; from those I have bred a great many birds and never had a red feather. The cock and pullet at the recent Show are some of the progeny, and I have been assured by residents in China that there is a perfectly black fowl common enough in Shanghai.

Disappointed exhibitors are, I know, apt to grumble. I do not, however, wish to be considered as grumbling; I am only anxious to prevent, if possible, a spurious breed from becoming common, and the true breed being again after a few years lost or given up in despair. This need not be the case if the attempt to make the breed by a cross is relinquished and pure birds sought for. My advice is, let breeders destroy every bird with the slightest tinge of a red feather, and never buy without making the strictest inquiry as to pedigree.—C. M. HOLB, *Tiverton*.

POULTRY AND BIRDS.

I HAVE just thrashed and sold at 41s. 6d. per quarter a crop of Rivett wheat, grown after white wheat, and it yielded 7½ qr. per acre, tail included. This field is open to and within 30 feet of the fowl house, from which emerge every morning some 150 head of poultry, and they have been free to roam at large on this field from the time it was sown to the day of carting the crop. As it was drilled with something under 5 pecks per acre, and as the said poultry, immediately after sowing, took possession of the field and made a most searching and continuous examination of its contents, the prospect would appear alarming to those who were inexperienced in the matter; and I confess that, in the early days of my confidence and belief in poultry, I have felt somewhat nervous as to this and the next particular fields, knowing how sundry opponents of thin sowing would triumph and rejoice over a failure of the 4 pecks per acre. Well, but there is the fact of the 60 bushels of crop per acre, and by no means the first, second, or third instance of the kind, for, however shabby and scratched the plants may appear in their early growth, their ultimate development is grand, and the thickest part of the crop is always that nearest to the fowl house. They not only cultivate the crop but manure it, just as sheep do.

But the great benefit is, that not an insect has a chance of injuring a plant, while, at the lower end of the field, less used by the poultry, there was injury from wireworm. In fact, a long and close observation of the habits of birds and poultry has convinced me that they are the farmers' and gardeners' best friends. It has been jocularly said that nothing in the shape of live stock makes so large a return as poultry do, as "for every grain they give a peck." It is interesting to watch their operations. Having, with their active claws pulverised every clod and unhoused the plant-destroyer, he is at once appropriated and converted into food for our table. Winged insects also have a poor chance with them. How neatly they "knab" the fly from his place of settlement, whether on the legs of our horses or cattle, or on the walls or boards. A sensible cart mare in my stable would not lift

a foot so long as her favourite chicken was watching for and appropriating every fly that settled on any one of her legs. I have also been amused at seeing a blackbird on the lawn making a vigorous effort to withdraw from its hole a stout worm, and tumbling over backwards by an ultimate and suddenly successful result. We should, as farmers and gardeners, remember that for probably eleven months out of twelve birds have to live upon the insect tribe, and that it is only during the ripening or ripened period that we must, by netting and other means, protect our fruit and crops. The good they do vastly exceeds the injury; I therefore strictly forbid bird-netting, and strongly advocate that there should be at least 1 per cent. of shrubbery to every one hundred acres of farm as a home for birds.—J. MECHI.

[The above is contributed to the *Farmer* by Mr. Mechi, and it is worthy of the consideration of all cultivators of the soil. Mr. Mechi is no mere theorist; we remember his farm near Tiptree Heath, the most unproductive of farms, with a soil specially difficult to cultivate. We remember the Wilkins's,

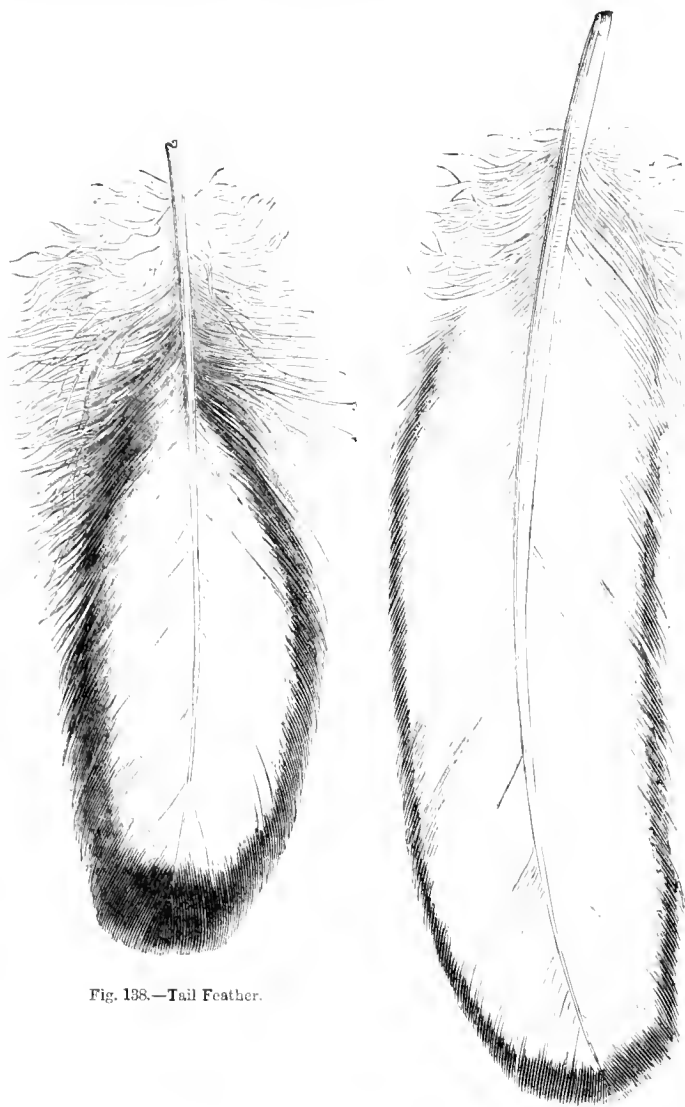


Fig. 138.—Tail Feather.

Fig. 139.—Large Wing and Tail Feather.

The Golden variety is marked with black on a bright brownish yellow ground. The Silver is entirely white. The Black is entirely black. One of the prettiest varieties is of entirely Cuckoo plumage. Of the crest the front half is cuckooed, and the back half white.

For the cuckooed cocks to be perfect they should be as well marked as the hens. The "Chamois" is of one colour, brownish yellow or speckled. The spot is clearer than the foundation of the plumage. These "Chamois" have the peculiarity that the hens are very good sitters.

BLACK COCHIN-CHINAS.

I HAVE just been reading your comments on this breed at the Crystal Palace Show and the award of prizes, from which it appears to me that judges still seem to consider that Black Cochins are the result of a cross, or they would not award a prize to birds with red feathers whilst there are in the class any without them. I maintain that those with red feathers are not

Rixs, Cheveleys, &c., but no one succeeded so well as Mr. Mechi.—Eds.]

MR. LINGWOOD'S DORKING COCKEREL AT THE OXFORD SHOW.

THE Dorking cockerel exhibited by Mr. Lingwood was disqualified by the Judges on the ground that he was an adult bird. That there was ground for such an opinion is shown by our reporters sanctioning it. That they were all mistaken we have the assurance of Mr. Lingwood himself, and he adds that he can produce six respectable witnesses who had seen the Dorkings in their early stages. Mr. Lingwood states that the birds were hatched on the 23rd of February, and we can readily understand how birds hatched thus early, and having thriven, would appear adults when eight months old.

TRIMMED HAMBURGS AT THE OXFORD SHOW.

Mr. Long's letter written to Mr. Hewitt, published in last week's Journal, I strongly contradict. Never was a more profound falsehood written respecting the trimming of his bird. I think it would have been far more prudent on the part of Mr. Long to ascertain the truth of the matter before writing such a letter to anyone; and I hope he will withdraw his statement. I have sufficient proof of the bird, if it is required, being placed in the hamper with the white on him when he was sent to Middleton Show, by parties who know the bird equally as well as myself.—THOMAS MAY.

BARRHEAD POULTRY SHOW.

This was held on the 21st inst., when the following awards were made:—

OLD SCOTCH BREED.—1 and *hc*, Mrs. Lukeman, Hamilton. 2, J. Jardine Hamilton. 3, W. Berry, Hamilton.
SPANISH.—1, J. More, Avon Braes, Hamilton. 2, T. Ewing, Alexandria. 3, J. Crawford, jun., Beith. *hc*, A. H. Gray, Waterloo, Wishaw. *c*, J. Murray, Carnforth.
DOEKINGS (Except White).—1, Special, and *c*, J. Hall, Barrhead. 2, Z. H. Heys, Barrhead. 3 and *hc*, A. J. Mather, Kilmarnock.
GAME (Black-breasted and other Reds).—1, R. Heys, Barrhead. 2, J. Williamson, Johnstone. 3, J. Nelson, Cockshaw, Hexham. *hc*, L. Casson, Ulverstone. *c*, J. Waddell, Airdrie.
GAME (Any other colour).—1 and Special, R. Heys. 2, H. Paterson, Kilsyth. 3, J. Nelson. *hc*, J. Allison, Shotts. *c*, J. Gray.
HAMBURGS (Golden-spangled).—1 and *c*, J. Crawford, Beith. 2, J. Kirkland, Stewarton. 3, A. Robertson, Kilmarnock. *hc*, J. Hamilton, Dalry.
HAMBURGS (Silver-spangled).—1, J. Smith, Stewarton. 2, Mrs. J. Cochran, Strathaven. 3, T. Black, Stewarton.
HAMBURGS (Silver-spangled).—1, H. Stenworth, Barnley. 2, A. Stirling, Barrhead. 3, R. Bruce, Bn-by. *c*, J. Stewart.
HAMBURGS (Silver-spangled).—1 and Special, P. Lynn, Coltness, Newnams. 2, H. M. Millan, Glasgow. 3, H. Kinniburgh, Glasgow. *hc*, J. Lochard, Kilmarnock.
BRAHMA POOTRA.—1, Mrs. Alston, Craighead, Hamilton. 2, 3, and *c*, D. Honeyman, Larbert.
COCHINS (Any variety).—1 and Special, J. Drinnan, Woodhall. 2 and 3, T. Bruce. *c*, W. Cochran.
POLANDS (Topped).—1 and 2, J. & A. Laird, Johnstone. 3, A. Cowan, Killermont.
FRENCH.—1 and *c*, A. Jack, Barrhead. 2, T. Fullarton, Troon. 3, J. C. Shaw, *hc*, J. Forrest, Kilsyth.
ANY OTHER VARIETY.—2, T. M. Lellan, Barrhead. 3, T. Brisbane, Barrhead.
CROSSBREDS.—1, 2, and 3, J. Pollock, Mearns. *hc*, P. Kitch. East Kilbride.
GAME BANTAMS.—1 and Special, W. Stewart. 3, J. Campbell. 3, J. Gow and Walker, Kilmarnock. *hc*, D. M. G. G. Pollock, Mearns. T. Corbett, Barrhead.
BANTAMS (Any other variety).—1 and 2, D. Kerr, Beith. 3, A. Robertson, Kilmarnock. *hc*, W. Miller, Falkirk; G. Hamilton, Neilston; J. Marshall, Airdrie.
ANY BREED.—Hens.—1, W. Lindsay, Bushy. 2, R. Heys. 3, J. Stewart. *hc*, R. Thomson. *c*, J. Forrest; A. Robertson.
Ducks (Any variety).—1, Special and 2, A. Robertson.
DUCKS (Any other variety).—1 and 2, J. Pollock, Mearns. 3, H. M. Millan, Blantyre. *hc*, J. Pollock; P. Kitch.
TURKEYS.—1, Z. H. Heys. 2, Mrs. Alston. 3, J. M. Lellan. *hc* and *c*, W. Robertson.
SELLING CLASS.—1, F. McKinlay, Glenmill, Campsie. 2, J. Borlan, Fouldhills, Kilmarnock. 3, C. Martin.

JUDGES.—Mr. James Logan, Eastshield, by Carnwath; Mr. Alexander Paterson, Airdrie; Mr. John McInnes, Broomlands, Paisley.

BURTON-ON-TRENT POULTRY AND BIRD SHOW.

THE sixth annual Exhibition of poultry, Canaries, and other cage birds was held in St. George's Hall, Burton-on-Trent, on Friday and Saturday, November 20th and 21st. There was a very good show of poultry, many fine pens of birds representing the various classes. The cage birds were exhibited in two divisions—viz., "birds hatched in 1874" and "birds of all ages," and in each division there were many fine specimens shown. The latter classes contained several very high-coloured peppered birds, exhibited by Mr. T. C. Salt, Burton. The Exhibition was held under most distinguished patronage, and was ably carried out under the auspices of a good Committee of management. The number of entries in the poultry classes reached 161, and in the Canary classes 163, forming altogether a suffi-

ciently attractive display. St. George's Hall is a well-adapted place, far better than the Town Hall, where several of the previous Burton Shows have taken place. The Canaries occupied the centre of the spacious Hall, the long stages for the birds being flanked on each side and along the bottom by double rows of pens (Turner's) for the poultry. The Committee were somewhat disappointed and grieved to hear of the indisposition of Mr. Hewitt, who was appointed one of the poultry Judges, but they obtained the kind and valuable services of W. J. Drewry, Esq., Burton, who officiated in his place. We believe the Show was well patronised. Mr. T. Newbold, Secretary, discharged his duties in a satisfactory manner. The following is a list of the awards:—

DOEKINGS.—1, W. H. Crewe, Derby. 2, E. Shaw, Oswestry. *c*, Miss Murray, Thelthorpe.
COCHINS.—*Cinnamon* or *Buff*.—1, W. H. Crewe. 2, W. J. Nash, Walsall. *hc*, E. G. Keay, Birmingham. *Any other variety*.—1, W. Clark, Nottingham. 2, E. Pryor, Welwyn. *hc*, W. Whitely, Clough; Rev. R. Fielden, Langley.
BRAHMS.—*Light*.—1, J. Hunter, Burton. 2, F. Holbrook, Derby. *hc*, H. Chawner, Uttuxeter. *c*, A. O. Worthington, Willington. *Dark*.—1, W. J. Nash. 2, Mrs. Allsopp, Worcester. *hc*, Bridgewater & Yoxall, Wednesbury. *hc*, F. Holbrook, Bridgewater & Yoxall.
FARNS.—1, W. Farrall, Burton. 2, H. Feast, Swansea. *hc*, G. W. Hibbert, Godley, Hyde. *c*, H. Chawner, jun.
GAME.—*Black Red*.—1 and Extra, J. Glassbrook, Burton. 2, Duke of Sutherland, Trentham Hall. *hc*, W. T. Everard, Ashby; C. Spencer, Thulston. *hc*, T. Gorton, Burton; E. Clavey, Burton; E. S. Gossell, Stroud. *Brown Red*.—1, W. T. Everard. 2, E. Winwood, Worcester. *hc*, Duke of Sutherland. *hc*, J. Bates, Burton; J. & E. Prince, Nantwich. *Any other variety*.—1 and Extra, E. Winwood. 2 and *hc*, E. Bell, Burton. *hc*, Duke of Sutherland. *c*, T. Bates, Burton.
HAMBURGS.—*Gold* or *Silver pencilled*.—1, A. F. Faulkner, Thrapstone. 2, Duke of Sutherland. *hc*, S. W. Hallam, Whitwick; Dr. Hall, Swadincote. *Gold* or *Silver-spangled*.—1, T. Bates. 2, S. W. Hallam. *hc*, S. Howarth, Burton.
BANTAMS.—*Game*.—1, T. Bates. 2, A. Ashley, Worcester. *hc*, S. W. Hallam. *hc*, Winfield & Andrews, Worcester. *Any other variety not Game*.—1, F. Holbrook. 2, J. Watts, Birmingham. *hc*, J. H. Law, Highgate; J. Mayo, Gloucester.
ANY OTHER VARIETY.—1, Mrs. Allsopp, Rugeley (Spanish). 2, G. Burrell, Rugeley (Malay). Extra 2, Duke of Sutherland (Black Hamburgs). *hc*, J. Pitts, Wolverhampton (Spanish).
SELLING CLASS.—1, W. H. Crewe (Black Hamburg). 2, J. M. Cooper, Burton (Dark Brahms). *hc*, E. Shaw (White Dorking); W. J. Nash; Duke of Sutherland.
CAGE BIRDS HATCHED IN 1874.
BELGIANS.—*Marked Buff*.—1, G. Bennett, Burton.
NORWICH.—*Clear Yellow*.—1, R. Cowley, Burton. 2, W. Jackson, Burton. 3, T. Bates. *hc*, C. Pratt, Burton. *hc*, A. Curtis, Burton. *Clear Buff*.—1, J. Dent, Burton. 2, R. Cowley. 3, W. Jackson. *hc*, T. Newbold, Burton.
NORWICH.—*Marked Yellow*.—1, R. Cowley. 2, J. Dent. 3, W. Jackson. *hc*, T. Bates. *hc*, T. Newbold. *c*, W. Holmes, Burton. *Marked Buff*.—1, T. Newbold. 2, W. Jackson. 3, C. Pratt. *hc*, R. Cowley. *hc*, J. Dent. *c*, A. Curtis.
NORWICH.—*Variegated Yellow*.—1, T. Newbold. 2, W. Jackson. 3, R. Cowley. *hc*, Fearn, Tisbury. *Variegated Buff*.—1, J. Dent. 2, W. Jackson. 3, R. Cowley.
NORWICH.—*Heavily variegated Yellow*.—1, T. Newbold. 2, A. Curtis. 3, W. Jackson. *c*, J. Dent. *Heavily variegated Buff*.—1, F. Bates. 2, J. Dent. 3, T. Newbold. *hc*, J. Fearn; W. Jackson.
NORWICH.—*Green Yellow*.—1, R. Cowley. 2, T. Bates. 3, W. Jackson. *Green Buff*.—1, W. Holmes. 2, W. Jackson. *Disqualified*, J. Dent.
NORWICH.—*Crested Yellow*.—1, W. Watson. 2, A. Curtis. 3, W. Holmes. *hc*, T. Newbold. *Crested Buff*.—1, C. Pratt. 2, W. Holmes. 3, W. Watson. *hc*, T. Newbold. *hc*, W. Jackson. *c*, G. Bennett.
CINNAMON.—*Yellow*.—1, J. Fearn. *Buff*.—1, T. Newbold. 2, J. Fearn.
LIZARDS.—*Golden spangled*.—1, J. Fearn. 2, W. Jackson. *Silver-spangled*.—1, W. Jackson. 2, J. Lacey, Burton.
GOLDFINCH MULES.—*Jouque*.—1, A. Curtis. *Nealy*.—1, A. Curtis. 2, T. Newbold. 3, J. Fearn. *hc*, W. Jackson.
ANY OTHER VARIETY OF MULE.—1, A. Curtis.
CAGE BIRDS OF ALL AGES.
BELGIANS.—*Marked Buff*.—1, G. Bennett.
NORWICH.—*Clear Yellow*.—1, 2, 3, and *hc*, C. J. Salt, Stapenhill. *hc*, W. Jackson; W. Gretton, Burton. *c*, G. Bennett. *Clear Buff*.—1, 2, 3, and *hc*, C. J. Salt. *hc*, J. Dent.
NORWICH.—*Marked Yellow*.—1, C. J. Salt. 2, J. Dent. 3, A. Curtis. *Marked Buff*.—1, 2, 3, and *hc*, C. J. Salt.
NORWICH.—*Variegated Yellow* or *Buff*.—1 and *hc*, C. J. Salt. 2, T. Bates. 3, W. Jackson. *hc*, W. Gretton. *Green Yellow* or *Buff*.—1, W. Jackson. 2, W. Gretton.
NORWICH.—*Crested Yellow*.—1, T. Bates. 2, J. Watson. 3, A. Curtis. *Crested Buff*.—1, C. Pratt. 2, F. Bates. 3, G. Bennett. *c*, A. Curtis.
CINNAMON.—*Jouque* or *Buff*.—1, 2, 3, and *hc*, C. J. Salt.
PAIR BREEDING BIRDS, MATCHED FOR BREEDING.—1, W. Jackson. 2, W. Gretton. 3, R. Cowley.
GOLDFINCH MULES.—1, A. Curtis. 2, J. Watson. 3, J. Fearn.
GOLDFINCHES.—1, A. Curtis. 2, R. Cowley. 3, W. Gretton.
BRITISH BIRDS.—*Open competition*.—1, T. Newbold (Thrush). 2, T. Peck, Burton (Bullfinch). 3, Mrs. Fogg, Burton (Thrush). *hc*, W. Jackson (Bullfinch); J. Winfield, Burton (Starling); J. Dent (Thrush); J. Cotton, Burton (Blackburn). *hc*, J. Cox (Dove).
JUDGES.—*Poultry*: Mr. E. Lowe, Comberford, and Mr. W. J. Drewry, Burton-upon-Trent. *Birds*: Mr. G. J. Barnesby, Derby.

THE SOUTH OF ENGLAND AND ISLE OF WIGHT ASSOCIATION have a show of Poultry, Pigeons, Rabbits, and Cage Birds at Portsmouth on the 8th, 9th, and 10th of December. The prizes are liberal; but to put all the varieties of Poles into one class and all the French varieties into another are great mistakes. No judge can give awards satisfactorily to such mixtures.

PROPOSED POULTRY AND CAT SHOW FOR TUNBRIDGE WELLS.—A number of gentlemen have decided upon forming this Show. At a meeting of the promoters, under the presidency of the Hon. F. G. Molyneux, the Right Hon. the Earl of Abergavenny, Viscount Nevill, the Marchioness of Camden, Sir David L. Salomons, Bart.; Col. Hassard, C.B.; Montague D. Scott, Esq., M.P.; G. B. Gregory, Esq., M.P.; Lord George Pratt, &c., consented

to become patrons. An influential working and general Committee was formed, and Mr. Apsley Smith, who has done so much to popularise the poultry department of the Kent and Sussex Agricultural Show, held in October at Tunbridge Wells, was appointed Hon. Secretary and Treasurer. The Show, which will be for poultry, Pigeons, Rabbits, Cats, and Cage Birds, will be held on January 21st, 22nd, and 23rd, and prizes and cups to the value of £200 will be offered for competition.

KILMARNOCK ORNITHOLOGICAL SHOW.

(From a Correspondent.)

The twenty-third Exhibition was held in the Corn Exchange on the 13th and 14th inst.

The *Spanish* were a remarkably good class. The first and second were chickens, first-rate in quality, and had every appearance of having been bred in the same yard. *Brahmas*, Any colour.—In this class many of the hens and pullets were good. A few good old cocks were also exhibited, but none of these had finished their moult. In cockerels there were few good ones. Vulture hocks were very common in this class. In *Cochins* Mr. G. H. Procter's grand well-known birds took the first and extra prize. The remainder of the class were not good. Silver-Grey *Dorkings* were a beautiful class. The Coloured *Dorkings* were also nearly every pen good. *Game*, Black or Brown Reds, were a large class. The prize birds were all good, but many hens in this class were only of medium quality. *Game*, Any other variety, were a good class. The first and second-prize were Duckwings, and very beautiful. The next class was for undubbed *Game*; these were a motley group, and, with the exception of the first, were very indifferent birds. The *Hamburgh* classes were well filled, there being many fanciers of them in the neighbourhood. The Golden-spangled were very good. The Golden-pencilled had thirty-four entries, and contained many good cockerels; but many of the pullets were deficient in fineness of pencilling. The Silver-spangled class was also a large one, and contained many very excellent birds. The Silver-pencilled class was far the weakest class of *Hamburghs*. *Poland* and *Orice-Cours* were exhibited together; the *Polands* received the most favours. *Scotch Greys* were a grand class. The cock in the first pen we believe was in the first pen last year; he is a grand fellow. There was a class for *Malays*, but they only mustered three entries; all were good. Any other distinct variety was a grand class; *Houdans* first, *Andalusians* second, and *Sultans* third; the fourth a grand pair of *Silbies*.

Of *Game Bantams*, Black and other Reds, there were fifty-three entries; many of the birds excellent. The cockerel in the second pen was a gem, but suffering from recent dubbing. *Game Bantams*, Any other than Reds, were also a grand class. The first were a beautifully-coloured pair of Duckwings. There were several other first-rate pens in the class. Of the undubbed *Game Bantams* the winning birds were good. Black and White *Bantams* were a good class, first and second being Blacks; third a nice pair of Whites. The Sebright *Bantams* were divided into two classes—Gold or Creamy Silver, and Silver Sebrights, clear white ground. Both classes were remarkably good, and had quite a host of admirers. In *Ducks* the *Rouens* were a grand class. The Any variety class was also good.

PIGEONS were a very large show. All the eight classes of *Pouters* were wonderfully good. *Carrier* cocks were also splendid. Young *Carriers* were a beautiful class. *Fantails* had thirty-two entries, many of the birds extremely beautiful in style and action. *Jacobins* were a large class of fifty-four entries, and many of the birds were very good. There was also a nice exhibition of singing birds and Rabbits.

(From another Correspondent.)

The success of this undertaking far exceeded the most sanguine expectations of the Committee. Notwithstanding the large space at their command, the Committee, we understand, were forced to refuse upwards of fifty entries in poultry and Pigeons. We give but a cursory glance at the poultry department.

The first class in the Show was *Spanish*, which was very well represented by twenty-six entries. The birds were in fine order; another fortnight would almost have perfected their plumage. We were glad to see such a fine array of those elegant birds, which stood out in bold contrast with their semi-shapeless neighbours, the *Brahmas* and *Cochins*. Of the latter class there were several pens of very large birds in fine plumage. The *Dorking* classes were small. The *Game* were well represented, particularly the Black-breasted and Reds. The special feature in this department was the *Hamburghs*. Golden and Silver-spangled, Golden and Silver-pencilled, and Blacks stood a hundred pens strong. In each of those classes were many beautiful birds, marked to perfection, and they gave the Judge no small trouble. The *Bantam* class, as usual at this Show, was a show of itself; 188 pens contained the various classes—viz., Black-breasted Reds, Variety, Black, White, Golden and Silver Sebrights. Amongst the *Game* birds were some most

elegant specimens, very gamey-like and graceful in their motions.

The *Aylesbury* and *Rouen Duck* classes were very well represented, and contained some remarkably large and fine specimens. In the Variety class of Ducks were several pens of very beautiful *Mandarins*, *Carolinas*, &c. The arrangements in this department were certainly most complete—roomy pens, ample passages, and good light.

PIGEONS.

This department was most successful, and has year by year been advancing to the magnitude of our city shows. The Exchange Hall was, as usual, filled, and for the first time two tiers had to be resorted to for the smaller birds, as well as the use of the gallery.

The *Pouters* amounted to 125 entries, and a finer collection of those birds has not been seen for years. Black and Blue cocks stood first in order. The first-prize was a Black, very handsome in form, displaying a well-formed limb; second a good Blue, rather heavy; third also a Blue, somewhat out of order; fourth also a good Blue, and of considerable merit. Red, Yellow, or Mealy Cocks.—First and special a beautiful Red of the old-fashioned style and colour, long in feather and limb; second also a good Red, but rather heavy in style, though well marked; third also a Red of fair markings; fourth a Yellow, evidently a young bird of fine style and limb. Mr. Mitchell's Yellow highly commended was evidently past his showing days. Any other colour Cocks.—First, second, third, and fourth were Whites, all very fine birds, the first nearly perfection in shape. Black or Blue Hens.—First and special a Blue, a very fine bird in every respect; second also Blue, a good bird; third a Black, well marked, but rather heavy; fourth Blue, a fine, handsome bird, but much too gay in the wing. Red, Yellow, or Mealy Hens.—First, second, third, and fourth Reds. First was a bird of unusual colour, and very handsome in style. In this class the Meals were completely put out, having to give way to the standard colours. One bird in this class, a Mealy shown by Mr. Mitchell, was perfection in form, and nearly so in markings. Surely there ought to be a class for Meals! Hens, Any other colour.—First, second, and third all Whites, handsome birds; fourth a Chequer, a fine bird, evidently young. Cocks bred 1874.—This class contained many birds which will, no doubt, be heard of again. Hens, Any colour, bred 1874.—This was a large and fine class of birds; many of them being young were not in show, but will be certain to command their places in another year.

Carriers.—Cocks any colour were a large and very fine class, the awards seemed to us to be well given. First and special was certainly a magnificent bird of Dun colour, and the best Carrier in the Show; second also a Dun, a fine bird; third a Black, had been a fine bird but was sadly out of order. Hens, Any colour.—First a very fine Dun; second a handsome Black, rather fine in bill; third a Black; fourth also Black, a good bird. Young birds bred in 1874.—This was a large class, and all the winners were birds belonging to local exhibitors. The English exhibitors certainly did not forward their best specimens, or they would not have been so completely beaten, but we understand that one or two English specimens did not arrive in time; if they had, the scale might have been turned. The Kilmarnock fanciers have for long been in the Carrier fancy.

Short-faced *Tumblers*, Any colour.—This was a very good but not large class. The Judge here seemed to have gone more upon colour than the shortness of face, and given the prizes accordingly. The second-prize, a Kite, we think ought to have stood first, being really the most perfect Short-faced bird in the class. *Barbs*.—This was a large and good class. First a very fine Black, fine head and wattle, and looked as if this were his first appearance for the season; second a very good Dun; third and fourth Black, very good, but we think there were others in the class which ought to have taken their places. Young *Barbs* in pairs, Any colour.—A small but good class. First Reds in very bad order, one of them showing the white feather; second we think should have stood first; the others poor. In this class were entries too late, which might have turned the tables. *Trumpeters* were a large class, containing mostly imported birds or birds bred from such. There was a great show of the rose and crown, but we think the Judge did not give due weight to the feet; many of them being very lightly feathered. *Fantails*, Any colour.—A splendid class of birds mostly of the Scotch Fancy, small and full of motion. All the honours were taken by Scotch breeders. The remaining classes will be noticed next week.

SPANISH.—Extra 1, W. McIntyre, Ochiltree. 2, R. Reag, Dalry. 3, J. Poulton, Bristol. 4, H. Beldon, Gt. Stock, Bingley. *hc*, R. Wilkinson, Early, Skipton. 5, J. More, Hamilton. 6, W. Nelson, Johnstone. 7, W. Wallace, Auchincraig. 8, R. Reag, A. Walker. 9, A. Robertson, Kilmarnock. 10, J. Armour.

IRISHIA POUTERS.—Extra 1, R. Maxwell, Dumfries. 2, W. Marshall, Bishopriggs. 3, W. Hughes, Glasgow. 4, A. Robertson, *etc*, H. Smith, Irvine. 5, W. Hughes. 6, N. S. Temple, Hexham. 7, G. Glatby, Meigle. 8, W. Harcourt, Buncup. *hc*, H. Wilkinson. 9, T. Pye, Lancaster. 10, T. Rames, Stirling. A. C. Russell, Cardross.

COCHIN-CHINAS.—Extra 1, G. H. Procter, Durham. 2, T. Fullarton, Troon. 3, and 4, T. Bruce, Bushy. *hc*, R. Maxwell. 5, J. Wyse, Falkirk. 6, Mrs. W. Steven. 7, W. M. J. Paton, Broughty Ferry. 8, Mrs. C. E. Taylor, Montrose. 9, J. Burns, Dundee.

DORKINGS.—*Silver-Grey*.—1, A. J. Mutter. 2, Capt. Lyon, Kirkcubright. 3, W. Murray, Dalmellagh. 4, J. Fotheringham, Stirling. *hc*, Z. H. Heys; T.

Smillie, jun. c, Z. H. Heys. *Coloured*.—Extra 1, G. S. Robb, Leslie. 2, A. Gibb, Ayr. 3, A. J. Mutter. 4, J. Turnbull, Larbert. *hc*, A. J. Mutter. 2, A. Gelladly. c, J. Bunce, Linnithgow. 3, Ferguson. *White*.—1 and 4, J. Pettigrew, Dalmellington. W. Brown. 3, W. Arnot, Dalmellington.

GAME.—*Black-breasted or other Reds*.—Extra 1, C. Jamieson, Forfar. 2, H. W. Hutchison, Kirkcaldy. 3, J. A. Mather, Dumfries. 4, J. Nelson, Hexham. *hc*, J. Chester, Nantwich; J. Nelson; W. Ormerod, Todmorden; J. A. Mather; c Jamieson; H. W. Hutchison; J. & C. Sheddin, Glasgow. c, G. C. Wilson, Milnthorpe West; R. Stewart, Blair Adam; E. S. Godsell, Stroud; H. Beldon. *Any other variety*.—1, Z. H. Heys. 2, J. A. Mather. 3, Howarth & Lever, Woodford, Eury. 4, H. L. Horne, Airdrie. *hc*, W. Nelson. c, J. Paton, Galston. Mrs. E. Freer, Kirkcaldy. *Undubbed variety*.—1, H. L. Horne. 2, J. A. Mather. 3, G. C. Wilson. 4, H. W. Hutchison. *hc*, W. Ormerod.

HAMBUCKS.—*Golden-spangled*.—1, 2, and Extra 2, G. J. Duckworth, Church. 3, H. Beldon. 4, J. Kirkland. *hc*, A. Ryeg. c, A. Robertson; W. Meanley, Birmingham. 3, Crawford. *Golden-pencilled*.—Extra 1 for hen and 4, G. J. Duckworth. Extra 2 for cock, W. Driver, Kenleigh. 3, H. Beldon. *hc*, J. G. Walker, Sunderland. 2, W. Dixon, Derby. 3, G. Caithness, Carnoustie; D. Gilmour; W. Linton, Selkirk; T. Black, Stewarton. *hc*, W. Speakman, Nantwich.

HAMBUCKS.—*Silver-spangled*.—Extra 1, H. Beldon. 2, H. Stansworth, Burnley. 3, G. J. Duckworth. 4, H. Stansworth. *hc*, J. Long, Bromley Common; W. Husband; J. M'Andrew, Carnoustie. c, R. Bruce. *Silver-pencilled*.—1, H. Beldon. 2, and Extra for cock, H. Smith. 3, J. Long. 4, J. Borland, Kilberchan.

HAMBUCKS.—*Black*.—1, H. Beldon. 2, H. Robinson, Baildon. 3, J. Long. 4, W. Wilson. *hc*, Stott & Booth, Hildesheim Brook, Eury.

HOLLANDS OR CREVE-CEURS.—Extra 1, H. Beldon. 2, A. M'Lelland, Barrhead. 3, J. Taylor, Montrose. 4, Mrs. J. Laird, Johnstone. *hc*, G. W. Hibbert, Godley, Hyde; A. Jack.

SCOTCH GREYS.—1, T. Wallace, Loans. 2, D. Kerr, jun., Park, Beith. 3, A. Gibb. 4, J. Fulton, Beith. *hc*, T. M'Murtrie, Tawthorn Toll; J. M'Quillan, c, R. M'Lelland, Ayr.

MALAYS.—1, R. Hawkins, Senham. 2, J. S. Rooth. 3, Rev. H. A. Fairlie, Kirkcubrecht. *Chickens*.—1, R. Hawkins. 2 and 3, Rev. H. A. Fairlie.

ANY OTHER VARIETY.—Extra 1, J. Lambie, New Cumnock (Hondans). 2, Rev. H. A. Fairlie. *Archangels*.—1, G. Anderson, Accrington (White Sultans). 4, Master A. Frew, Sluichartow, Kirkcaldy. c, H. Wilkinson (Hondans).

GAME BANTAMS.—*Black-breasted or other Reds*.—Extra 1, G. Bell, North Seaton, Morpeth. 2, R. Youll, Sunderland. 3, R. Bishop, Carnforth. 4, A. Crawford, Beith. *hc*, J. Mayo, Gloucester. *hc*, Z. H. Heys; W. Henderson; J. Nelson; A. Gibb; J. Scouler; A. Kennedy, Kilbirnie; J. Hine. c, G. K. Scobie, Dunfermline; W. Grice; J. M'Gawn.

GAME BANTAMS.—*Any other variety*.—1, J. Nelson. 2, R. J. Hartley. 3, J. Seton. 4, T. Barker. *hc*, D. Hunter, Sunderland. *hc*, J. Hunter; J. Nelson; R. White, Cockshaw, Hexham; J. R. Gilgoun, Crossgates, Fife; W. Rogers, Sunderland; G. Riley, Accrington.

GAME BANTAMS.—*Undubbed, any variety*.—1, T. Ferguson, jun. 2, T. C. Newbit, Epworth. 3, T. Barker, Burnley. 4, W. F. Addie, Preston.

BANTAMS.—*Black or White*.—Extra 1, W. H. Shackleton, Bradford. 2, C. E. and J. G. Illingworth, Hightown, Normanton. 3, J. Marshall. 4, D. M'Lauren. *hc*, H. Beldon. *hc*, Milner & Reamlan; R. H. Ashton, Mottram (2); Mrs. W. Shaw; T. Cropper. c, Miss J. M. Frew.

BANTAMS.—*Golden or Creamy Silver Shright*.—1, A. Millar, jun. 2, J. Millar. 3, W. Richardson, York. 4, J. Taylor. *hc*, W. Richardson; T. B. Carver, Langthorpe, Broughbridge; M. Leno, Markyate Street. c, J. W. Lloyd (2).

BANTAMS.—*Silver Shright, Clear White Ground only*.—1 and Extra, A. Robertson. 2, J. W. Lloyd, Kingston. 3, J. Paton. 4, Miss M. S. Millar. *hc*, J. Mayo.

SELLING CLASS.—*Any variety of Bantams*.—1, T. Barker (Game Bantams). 2, D. M'Lauren (Black Bantams). 3, W. Innie, Torrance, Kilwinning (Scotch Greys). 4, R. H. Ashton (Black Bantams).

SELLING CLASS.—*Any variety except Bantams*.—1, A. J. Mutter (Dorkings). 2, W. Greenshields (Spanish). 3, W. Jardine, Millburn, Tarbolton (Golden-spangled Hamburgs). 4, G. Willison, Kilmarnock (Brahmas).

DUCKS.—*Aylesbury*.—Extra 1 and 2, A. Robertson. 3 and 4, Z. H. Heys. c, W. Wallace. *Rouen*.—1 and 3, J. Nelson. 2, J. A. Mather. 4, Capt. Lyon. *hc*, J. Pollock, West Linton, Nettleton. *hc*, A. Robertson; R. G. Mulhgan; R. White. *Any other variety*.—1, H. B. Smith, Broughton, Preston. 2, Mrs. W. Shaw. 3 and 4, H. B. Smith. *hc*, R. H. Ashton; J. Johnstone, Sunderland (2).

GESE.—1, W. G. Mulligan. 2, H. M'Lelland. 3, J. Bunce.

TURKEYS.—1, Rev. H. A. Fairlie. 2, Misses Stirling, Craigie. 3, G. H. Guthrie.

PIGEONS.

POUTERS.—*Black or Blue*.—Cock. —1, J. Mitchell, Glasgow. 2 and 3, J. M'ulloch, Uddingston. 4, D. Lawrie. *hc*, R. Crow, Larkhall. c, A. N. Bryce, Edinburgh. *Hen*. —1, J. M'ulloch. 2, R. W. Bryce, Edinburgh. 3, W. Ridley. 4, J. Mitchell. *hc*, E. Beckwith. c, H. Thomson.

POUTERS.—*Red, Yellow, or Monty*.—Cock. —1 and 2, J. M'ulloch. 3, E. Beckwith, Monkwell, London. *Hen*. —1, J. M'ulloch. 2, J. Mitchell. c, A. Wintour, Edinburgh. *Hen*. —1, J. M'ulloch. 2, W. Ridley. 3, J. S. & A. Robb, Gabserton, Alloa. *hc*, J. Mitchell. c, J. M'ulloch.

POUTERS.—*Any other colour*.—Cock. —1, W. Ridley. Hexham. 2, J. M'ulloch. 3, J. Forest, Hamilton. 4, E. Beckwith. *hc*, A. Dunleavy, Glasgow. c, J. Paton. *Hen*. —1, W. Ridley. 2, J. M'ulloch. 3, A. Anderson, Trinity, Edinburgh. 4, J. Mitchell. *hc*, J. Day, Edinburgh. c, H. Davies, Kilbirnie.

POUTERS.—*Any colour*.—Young Cock. —1, 2, and 4, J. M'ulloch. 3, R. Crow. *hc*, J. Day. c, W. Ridley. *Young Hen*. —1 and 2, J. Mitchell. 3, R. Crow. 4, J. M'ulloch. *hc*, W. Ridley. c, D. Lawrie.

CARRIERS.—Cock. —Extra 1, W. Ridley. 2, S. D. Baddeley, Hereford. 3, H. Yardley, Birmingham. 4, E. Beckwith. *hc*, A. Hutchison; J. M'Cræ; E. Beckwith; J. & W. Towerson, Egremont. *Hen*. —1, S. D. Baddeley. 2, W. Ridley. 3, G. Brown. 4, H. Bankhead. *hc*, H. Yardley.

CARRIERS.—*Young Cock or Hen*.—1, J. Ross, East Gatehead. 2, H. Bankhead. 3, D. Robertson. 4, D. Munn. *hc*, G. Brown. *hc*, J. Ford, Monkwell Street, London; H. Bankhead; E. Beckwith.

TUMBLERS.—*Short-faced*.—Cock or Hen. —1 and Extra, E. Beckwith. 2, D. Brash. 3, H. Yardley. 4, J. Ford. *hc*, Miss M. S. Millar; R. Crow; E. Beckwith (2).

BARDS.—Cock or Hen. —1, E. Beckwith. 2, J. E. Spence. 3, A. N. Bryce. 4, J. Lamont, jun., Edinburgh. *hc*, H. Yardley; W. Brydone, Langton Malns, Danse. 3, Crow. *Young Pair*.—1, J. Glen, High Bessyhill, Cambuslang. 2, D. Lawrie. 3, J. R. Kennard, Helensburgh. 4, J. Smart, Montrose.

TRUMPETERS.—Cock or Hen. —1, A. A. Vander Meerzsch, Tooting, London. 2, J. Lederer, Booter. 3, J. & W. Towerson. 4, G. Ure, Broughty Ferry. *hc*, J. & W. Towerson; A. A. Vander Meerzsch.

FANTAILS.—Cock or Hen. —1, Master K. Blair, Johnstone. 2, Cumming and Fleming, Beith. 3, A. Smith, York. 4, W. & A. Crawford, Beith. *hc*, J. F. Loversidge, Newark; W. & A. Crawford; J. Main, Johnstone; Miss I. Blair, Thorn, Johnstone.

JACOBS.—Cock or Hen. —Extra 1, W. Brydone. 2, J. A. Gilmour. 3 and 4, A. A. Vander Meerzsch. *hc*, A. N. Bryce (2); J. Pyper, Belfast (2); J. Ferguson; J. A. Gilmour.

TURBITS.—1, W. Brydone. 2, A. Angus, Galston. 3, M. S. Temple. 4, J. G. Orr, Beith. *hc*, R. Brown; J. G. Orr; J. Muir; M. S. Temple.

OWLS.—*English*.—Extra 1 and 2, W. Ridley. 3, T. Foster. 4, A. Yuill, Glasgow. c, A. N. Bryce; W. & R. Davidson, Montrose.

TEMELEAS.—*Self-coloured, not Short-faced*.—Special 1, W. C. Cassels, Hamilton. 2, J. Glen. 3, K. W. Bryce. 4, W. Ridley. *hc*, B. Douglas; W. Millar; W. I. Martlebeck, Birmingham. *hc*, J. Glen; Cumming & Fleming; W. M'Kinlay, Kilmarnock; R. Cameron.

TEMELEAS.—*Blue-barred or any other colour, not Short-faced*.—1, J. G. Orr. 2, H. Fulton, Beith. 3, J. G. Orr. 4, J. Glen. *hc*, J. Kerr; J. Ford.

BEARDS OR BALDS.—*Long or Short-faced*.—1, W. Brydone. 2, W. Ridley. 3, W. M'Kinlay. 4, J. Kerr. *hc*, H. Yardley; J. Glen; H. Smith; J. G. Orr; E. Beckwith.

COMMON.—1 and 2, J. F. Cunningham, Beith. 3, A. Gray. 4, W. Mackie, Tarbolton.

NUNS.—1, J. Lamont, jun. 2, J. Clark. 3, J. Cargill. 4, A. Duthie.

ANY OTHER DISTINCT VARIETY.—Special 1, W. Brydone (Foreign Owls). 2, H. Yardley. 3, E. Lee, Nantwich (Dragoons). 4, T. Foster (Swallows). *hc*, A. N. Bryce (Dragoons); A. Duthie (Black Magpies); A. Anderson (Archangels); A. Jackson, Chequerbent, Bolton (2); J. & W. Towerson (2); H. Beldon. c, William D. Glass. 3, J. Lambie, New Cumnock. 2, D. Lawrie. 3, W. & A. Crawford. 4, J. & W. Towerson. *hc*, A. N. Bryce; c, K. Kilgour; J. Galt, Kilburnie.

CANARIES AND CAGE BIRDS.

CLEAN YELLOW.—Cock. —1, W. Campbell. 2, G. Grant, Bridgeton, Glasgow. 3, R. Crawford. 4, T. Vallance, Glasgow. *Hen*.—Extra 1, R. Byron, Dalry. 2, R. Crawford. 3, D. Dick. 4, D. Reid.

CLEAN BUFF.—Cock. —Extra 1, W. Paterson, Perceiton. 2, R. Baxter. 3, W. Adams. 4, D. Kilbirnie. *Hen*.—1, D. Holden, Irvine. 2, T. Vallance. 3, R. Paterson. 4, J. Graham.

PIREAL YELLOW.—Cock. —1, M. Adam, Ayr. 2, R. Millar. 3, T. Jamieson. 4, H. Adair, Crookedholm. *Hen*.—1, T. Vallance. 2, J. M'Lelland. 3, A. Kelly, Paisley. 4, R. Byron.

PIREAL BUFF.—Cock. —Extra 1, J. Kerr. 2, T. Vallance. 3, R. Brydon. 4, W. Thom, Stewarton. *Hen*.—Extra 1 and 4, A. Kelly. 2, A. Borland. 3, R. Paterson.

MULE.—*Goldfinch Yellow*.—1 and 2, J. Calderwood, Stewarton. 3, D. Young, Kilmarnock. *Goldfinch Buff*.—1, J. Calderwood. 2, A. Anderson.

GOLDFINCH.—1, T. Conn, Kilwinning. 2, A. M'Dowall, Dalrymple, Girvan. 3, T. Revie.

SELLING CLASS.—Cock. —Extra 1, D. Holden. 2, A. Borland. 3, R. Calderwood. *Hen*.—Extra 1 and 3, D. Dick. 2, R. Buntine.

HOME OR FOREIGN BIRDS, NOT INCLUDED ABOVE.—1 and *hc*, Mrs. W. Shaw (Cockatoo and Parrot). 2, Mrs. J. M. Wilson, Kilmarnock (Australian White Cockatoo). 3, T. Barrowman (Parakeet).

RABBITS.

ANY FANCY VARIETY.—*Buck or Doe*.—1, E. J. Fell (Spanish Lop-ear). 2 and 4, W. M'Quillan, jun., Galston (Lop ears). 3, J. M. H. (Hutchinson Himalayan). **COMMON**.—*Buck or Doe*.—1, J. Kirkland. 2, D. Smith. 3, J. Rankin. 4, J. Lochhead.

JUDGES.—*Poultry*: Mr. Richard Teebay, Fulwood, Preston. *Pigeons*: Mr. James Huie, Glasgow; Mr. T. J. Charlton, Bradford. *Canary Birds, &c.*: Mr. Samuel Brown, 100, West Street, Calton, Glasgow; Mr. Robert Crawford, Bankhouse, Kilbirnie; Mr. Robert Calderwood, Kilmarnock; Mr. John Mair, Kilmarnock.

PIGEONS AT NEWCASTLE-UPON-TYNE SHOW.

This was a success, not only as regards the large number of entries in almost every class, but the very satisfactory way in which nearly one hundred prizes, and about double that number of commendations, were awarded. It was an agreeable disappointment to me to find, that instead of my usual criticisms on the judging, it is merely requisite to give a general description of the winning birds.

Blue or Black Pouter cocks stood first on the list. The first prize and cup were awarded to a well-known Blue bird, although he stood between two very grand Blacks. The second, also a Blue, was perhaps a little more slender, similar in markings, yet wanting in crop; but were it in the hands of some, or oftener exhibited, it would show to greater advantage. In hens a large Blue was first; but I had a great liking for the second-prize hen, also a Blue, having grand style and markings, yet not so clear in colour. The commendations in both classes were well bestowed.

Red or Yellow cocks came next. A good Yellow was first, with plenty of limb and length of feather, but poorly marked. The second, a Red, was very fair in all points, a good blower, and always showing to great advantage. The hens were average birds; first a Red, measuring well, but faulty in plumage, Yellow taking second, and I rather preferred this to the former bird, being tighter in feather, and exhibiting herself well. A very-highly-commended bird was close upon them with quality in every respect. In the classes for Any other colour, in cocks I found a dashing White first, showing every point asked for. The second prize, although given to a true "Any other colour," might have been better bestowed upon either of the two highly commended birds. In hens of this questionable colour the prizes were well awarded to good Whites, and no fault could be found with the commendations. A word of advice to the disappointed: I would mention that many good Pouters exhibited, and not realising the expectations of their owners, would perhaps have done better if they had been trained more to the show pen, and asked to appear in their best attitude.

Carriers.—Black cocks consisted of half a dozen very good specimens. In spite of a deformed wing, the Judges thought a bird good enough for the first prize. My opinion was with the majority—that the bird ought to have been disqualified, especially when a first-rate bird in the next class was passed over for a little blindness of one eye. The second prize was awarded to a really good bird, only beaten by a little more size of eye; but surely a damaged bird ought not to be placed before a first-class bird in every respect. The first-prize Black hen, although a little ragged, possessed excellent head, beak, and wattle properties, and when in full feather is a fine specimen of an English Carrier. In Any other colour, cocks, Duns took both prizes. Although the first-and-cup bird was much admired for its perfections, I would not have complained had the awards been reversed; in addition to being equal in points, the second-prize

bird was by far the better in colour. In hens the first pen was a little the better in eye, yet the second was superior in colour. One or two good birds were highly commended.

Passing on from birds of the past and present, we get a glimpse of the future, and behold youthful promise very fairly developed—a strapping fellow full of vigour and very even in head points, showing a great contrast between himself and others; this and the second-prize birds were Duns.

Dragons, Blue or Silver, were a very large class, so large that the Committee could have afforded to have given an extra prize or two; if even only a third of 5s., there would still have been left £5 on the class. The first was a Blue, well made, with beautiful black bars, and a proper blue rump; second a Silver of a very fine soft colour, and well proportioned. A few commendations were given, yet many very good birds were unnoticed. Yellow or Red.—The former beat the latter, both being first-rate birds; but so good was the class that almost every bird was deserving of a prize. In the class for Any other colour a Grizzle beat a White. These excepted, the class was nothing extra.

Almond *Tumblers* came next under notice, and a very fair collection they were—ten birds, with nearly every property first-class. The first-and-cup bird and the very highly commended one were well broken, the former beating the latter and the second pen in beak and head points. Almond hens were a small class, and only contained three really good birds, properly placed. Second very charming in colour. Tumblers, Any other colour, comprised very good head-and-beak birds. First a little gem of a Kite; the second a Black Mottle, standing between two much superior birds, a Yellow Mottle being one, which was not mentioned. The hens were a very fair class, yet the Judge again appeared to have forgotten that the class was more for the head-and-beak birds than for the best Kite or Mottle. Those low-headed and old-fashioned birds are of no use against good head-and-beak birds. In Tumblers of this year a nice little Red was first, and Yellow Mottle second.

Barbs, cocks, any colour, a very grand Dun had an easy victory, and a Black second; only two more worthy of note. In hens it was similar; a Black first and a Yellow second, the others only middling.

In Foreign *Owls*, Blue or Silver, Blues of course took both prizes. White or any other colour proved a larger and better class; White first and Black second.

Trumpeters, Mottled, first-and-cup Dark, yet wanting in colour and feet feather. The second and highly-commended birds left little to choose between, the former having the larger rose, and the latter the better feet feathers. Four very good Blacks were in the "other variety" class, the first pen being excellent in feet.

Fantails, White, an excellent class, the same bird winning that has been, I believe, either first or second for four or five years. Many others with large and well-spread tails took the other honours, yet some were coarse and wanting carriage. Any other colour, a small Blue was first, and a large coarse Silver with ragged tail second, possessing nothing but colour to recommend it.

Jacobins, Red or Yellow.—The class was large, but many very indifferent birds were shown; about a dozen, however, were pretty fair, consisting of three or four good Yellows, and amongst the remainder was a neat little Red hen, taking the first prize and cup. She appeared to strike the eye of all by her closeness of chain and compact appearance. The second-prize bird had a good hood and chain with a nice short beak, yet lacking freshness of plumage. In Blacks some half-dozen decent birds contested. First a little hen, good in all points; second a very rich-coloured and good-chained bird, rather coarse, but well cut. One or two good birds were highly commended. The class for Any other colour contained, in addition to Whites, three Blues and one Silver, Whites taking the prizes; first large, second a little marked.

Turbits, Red or Yellow, a good class. First a Yellow, well furnished; second Red, small and better colour. Any other colour a very fair class. First Silver, being very fine and soft in colour, and well deserving its position, although a Black late arrival, had it been in time, would have very much questioned the Silver's honours. Second a Blue—small, clean, and neat. Others, well-frilled and clean-cut, were highly commended. Red or Yellow, rare specimens of this class took the first and second prizes; both birds were Yellow. Any other variety, a poor class; first and Black second.

English *Owls* were a very large class, and many grand birds, Silvers proving superior to Blues.

The other classes—*Maggies*, *Nuns*, *Antwerps*, common *Tumblers*, and the Variety class, did not call for any special comment.

Although I have entered at some length into many classes, I must not omit to mention that this liberal-minded Committee, for such it is when it is remembered that they who are all Pigeon fanciers, actually give classes for poultry, Canaries, and British birds, and that, notwithstanding the discouragement of last year, they are now in such a financial position as many a society would envy. It was indeed pleasing to me to notice the many

greetings of good old fanciers who perhaps had not seen each other for at least a twelvemonth; and the fact that at one time on the opening day I could count at least a score of good Pouter fanciers speaks a deal for that breed, and that it must be well heard of in this locality in the future.—IMPARTIAL.

HIGH-FLYING TUMBLERS.

AMONG the numerous fancies peculiar to Pigeon-keeping in America there is a very interesting and amusing one that has been sadly neglected; it is that of flying Tumbler Pigeons. By that I mean training them to fly high and stay up for hours. Several years ago quite a number of breeders in this city kept a flight of such birds, but I believe the fancy has entirely departed, until to-day there is not a good flock of high-flyers to be found. I am told by an old fancier from across the seas that in the city of Vienna, Austria, some years ago twenty thousand birds were kept for this especial purpose, and in the early morning hours of a clear day the sky would be filled with these encircling flights of Pigeons. On the housetops would be seen the different owners watching the evolutions of their respective flocks, marking here and there a defective bird, as one not entitled to good company, but only fit for boys or the spit, and again praising the performance of some extraordinary member of the flock. The variety known as Balda is the favourite of fanciers of this sport, and it does not matter as to colour if the bird is short or pleasant-faced, clean cut, and of good staying qualities.

In the matter of tumbling authorities differ, some favouring birds that tumble as they rise and fall, others claiming that they must not tumble or they will bring down the flight. In raising a flight of Tumblers one wants to be particular if it is the bald-headed variety, and mate only well-marked and good-coloured birds, as this is one of their attractions; if their flying qualities are known, good flyers should also be mated together, for if one is an indifferent flyer and the other a good one, the weaker of the two will have a tendency to injure the flying qualities of the other by inducing it to settle or fly low. This raising of a good flight of high-flyers is not the work of a day or month, but it is only attained after many months of patient watching and experimenting.

The room in which they are kept should be furnished with an area or trap for letting the flight loose, and also furnished with loopholes and bolt-wires, so arranged that although they will allow a Pigeon to enter, it cannot get out unassisted. The loft should be made as attractive for them as possible, by furnishing it with plenty of clean water, feed, gravel, and rock salt, or salt cat, so that when they are let out they may give all their attention to flying, and not be searching around for something to gratify their appetites; a dish for bathing should also be provided, that their plumage may be in fine clean condition; in fact, every want should be supplied, and their home be made as attractive as a Pigeon-loft can be. It is a peculiarity of these birds to fly to a great height, and it is necessary for the fancier to be present when they are let out, that he may know each individual bird, and mark those for breeding and laying that rise to the greatest height. Thus, by careful selection from his young stock, he can establish a flight of a dozen or so birds that will cheer his heart and do him great credit.

But we will suppose the fancier has worked patiently for years, and has finally established a respectable flock. We go with him some bright May morning to the home of his feathered favourites; they have learned his step so well that, as soon as we reach the entrance, and before the door is opened, we can hear their delighted fluttering; they well know that the hand that turns the key in the lock never comes except it brings them some dainty to feast on. This time their treat is canary seed, and as their master scatters it around they eagerly seize it, and never leave off the search until every grain is devoured. But we have come to give them a fly. At this time of the day they know what the visit means, and as soon as the trap is opened they are ready and off. As I have said, it is a morning in May, the air soft and balmy, the skies bright and clear, unchecked even by a passing cloud. The birds feel the influence of the invigorating air, and rise in circles higher and higher, their bright clean plumage glistening in the sunlight, their peculiar markings showing to the greatest advantage. Now one throws a somersault, but it is so neatly done that he never leaves the flight; again, another shows his agility, and so they keep soaring and tumbling, and yet all so close together that your pocket-handkerchief could cover them; but your neck begins to ache from so constantly gazing upward, and you turn to earth awhile to relieve the strain upon it.

In commenting on the qualities of the favourite birds an hour slips away, and when you again turn your eyes heavenward nothing but empty space meets your gaze. Where are they? What has become of them? Have they settled on some neighbouring roof? No! you look again, and away up as far as you can see, a number of glistening specks greet your eyes, and as you continue to look the forms of the birds descending come

distinctly into view; down they gradually come, circling and tumbling as before, until, with one last tumble and pitch, they settle all about you, showing a little appearance of fatigue as the high-mettled racehorse after a two-mile heat. They rush for the loopholes, are soon inside, and attacking the food provided for them with appetites such as only such exercises can give. Here, in their loft, they remain confined until the usual hour for morning exercise comes round again, when, if the weather is bright and clear, they are indulged with another fly.

In flying birds care should be taken not to allow a hen out that is just about laying, nor if a pair has eggs, to allow both to fly together, as they may fly so long as to allow the eggs to get cold. Or, again, if it is the morning when you let them fly, and the pair go out together, the cock will be likely to leave the flight after flying a short time, and come back to the nest; his doing so will be very apt to cause the whole flight to settle. I should greatly like to have this amusement become general, and to all lovers of this fancy can truly say, nothing in this way can give you more pleasure than in training and watching a flock of high-flying Tumblers.—BLUE JACOBIN.—(*American Fanciers' Journal*.)

MESSENGER PIGEONS.

One lesson taught by the war between France and Germany was the value of well-trained Carrier Pigeons in all besieged cities, and both countries are now taking steps to procure a good supply. The Germans have established Pigeon stations at Hamburg, Metz, Berlin, Cologne, and the fortresses of Magdeburg, Wesel, and Minden, and the Government has stimulated the creation of Pigeon-flying clubs, one of which, ironically called "The Concordia," has recently flown a number of birds from Paris to Cologne, so that they might know their way in case of an emergency. Several of those Pigeons flew the distance in seven hours, thus attaining a very high rate of speed, but it must be added that the Germans have purchased the best Carriers procurable in Belgium. At a sale in Brussels the other day sixty Pigeons realised four thousand francs, or two and a half guineas each, the whole of them being bought for Germany. In France, upon the other hand, M. Geoffroy St. Hilaire, the Director of the Jardin d'Acclimatation, has induced the Minister of War to sanction the establishment of a "military dovecote," which is to contain some 450 Pigeons, provided by two of the most successful breeders in Belgium. A sum of money has been placed at M. St. Hilaire's disposal, and with the progeny of these birds he will soon be in a position to people the dovecotes which are to be placed in all the chief fortresses of France. The Pigeons will also be trained to fly distances of three or four hundred miles, and each Pigeon will be made to travel in different directions; for as a postal messenger in time of war he must be able to fly to any point of the compass. Experience shows, however, that the Carrier can easily be trained to do this, for M. Perre de Roo, the great Belgian breeder, relates an instance in which he brought eight Pigeons from Antwerp, and let them loose at Greenwich. After wavering in their flight for a few minutes they went off in the direction of London, and M. de Roo never expected to see them again; but he received a telegram from Antwerp a few hours later to say that they had all returned to their dovecote, and these were Pigeons that had never crossed the sea before.—(*Daily News*.)

YORK AND DARLINGTON CANARY SHOWS.

At the York show-room I found a much better collection of birds than I expected. To the credit of Mr. E. Todd and a willing, painstaking, practical Committee, every arrangement had been made for the comfort of the 230 specimens entrusted to their care, and likewise of the visitors who were admitted to the show-room at about midday, or soon after the judging had been concluded. The Show was held in the Corn Exchange, and extended over two days, the 10th and 11th inst.

The classes commenced with *Belgians*. Any variety, but there was nothing of a very sensational character. Mr. T. M. Reid's Yellow was a tolerable good bird, showing best for points. Messrs. Orme & Ashley exhibited a very fine Clear Yellow *Norwich*, which gained a first, having good bloom throughout. Still, I have seen a better-coloured bird this season. Messrs. W. & C. Burniston were well in for a second prize. The two very highly commended birds of Mr. Adams, and the one (20), exhibited by Mr. Pope, were all fine. There were a mixed lot of *Clear Buffs*, which were not altogether to my satisfaction, and not nearly so good as those which were shown at Darlington a day or two afterwards. The *Evenly-marked* and *Ticked* classes contained some capital birds. There were twenty-nine Crested birds in both classes, but the Buffs had the best of it. A few good *Lizards*, both Gold and Silver-spangled, were on the stages. No. 112 (Gold-spangled), exhibited by Messrs. Burt & Blemstone, would have looked much better had it not been clipped in the back part of the cap feathers. In the *Cinnamon* classes Mr. Adams exhibited some high-coloured birds, and gained three

prizes out of four. Mr. Smith won a second in Buffs. *Yorkshire* birds were present in strong force. Mr. Stewart gained a first in Yellows with a fine bird; Mr. Myers being in close attendance for the second place. The latter exhibitor also deservedly won first honours in Buffs. Uneven-marked *Yorkshire*—Mr. Belk first, Mr. Hawman second, both good.

In the *Auy* other variety class Mr. Garbutt exhibited an immense Buff Copy-crested bird. First prize was accorded to it, and second to a Scotch Fancy. It is somewhat amusing to find those who are in the dark with respect to this particular kind of bird terming them Belgians. In the Selling class Messrs. Orme & Ashley were at home for a first prize. Class 19 (sixes), nine entries, T. Cleminson first, J. Calvert second. Mules were pretty good, both Marked and Dark. There were eighteen Goldfinches, but Mr. Cox won first, Mr. West being second. The first-prize Bullfinch belonged to Mr. Lister, and the second to Messrs. W. & C. Burniston, who also took a first prize with a capital Brown Linnet, sixteen others standing behind. Mr. Carrick was second with a tolerably good bird.

What would old "Isaac of York," the Jew familiar to all readers of "Ivanhoe," have thought, had he in his day witnessed such living golden specimens of Canaries as were shown in the Corn Exchange, York?

But I must be thinking of Darlington, where I found myself wrapped-up in the "Fleece," a very appropriate and acceptable term, for the weather had changed to thorough winter. After a dreamy night about high-colour and high-shouldered birds, I awoke to find the ground covered with snow—certainly not very deep, but it brought to my mind something in the nursery-rhyme style I had learned about "the fleece as white as snow," rhyming with some such words "sure to go." Well, I was quite ready to go, for unless I visited the Mechanics' Hall, Darlington, to see what sort of birds there were, I should know very little concerning them. The total number of entries reached 426—a goodly array certainly, made-up of the best specimens that could be sent. Such a display of Belgians has not been seen for many a day, Mr. Rutter being present with a dozen (not ten), all on this occasion being conveyed to the Show by himself. Whether anyone else had an "interest in one," is not for me now to say. There is no telling what future events may bring forth.

In taking a survey of the birds generally, I found some of the best specimens I had every witnessed, especially the *Norwich* birds. In Classes 1 and 2 Mr. Rutter took four prizes with wonderfully good birds, being first and third in Yellows, and first and second in Buffs. Mr. Rutter's other birds gained high commendations; but it would extend the report too much to enumerate other than the highest prizetakers. Mr. R. Hasman took a good second, getting-in cleverly betwixt Mr. Rutter's pair. Sergeant-Major Paxton won a good third in Buffs. In the next six classes for Clear Yellow, Clear Buff, Evenly-marked Yellow, Evenly-marked Buff, Ticked Yellow, and Ticked Buff, Mr. Adams, of Coventry, won twelve prizes out of eighteen. His birds were a sight alone worth witnessing. Messrs. Mackley took three thirds, Messrs. Brown & Gayton a first, Mr. G. Cox a second, and Messrs. Moore & Wynn a third. This is something like disposing of the *Norwich* classes. The prize list will afford all particulars. In the Crested classes there were a number of fine birds shown, but as is usually the case, the Buff-crests were the most showy. Messrs. Mackley's first Buff was a bird much to be admired.

In the four classes of *Lizards* there were several first-class birds exhibited, but still they are not so good generally as I have seen on many previous occasions. A great mistake was committed through some of them having been moulted upon the pepper diet. Instead of improving them it spoils the appearance of the feathers. There were very few birds in the two first classes that could be called at all perfect, being open-backed, bad-spangled, or otherwise deficient. Messrs. Cleminson and Ellerton won the two highest honours with birds of good form and well backed-up in spangles and caps. Mr. Ritchie took first honours with a good Silver, he having also won third in Golds. Mr. Bunting showed well-up for second in Silver-spangled, it being by great odds the best hen out this season. This was admitted by competent judges. The same bird has won several prizes at other shows. Mr. Fairbrass, of Canterbury, exhibited the best bird by far in the Broken-cap classes, which bird, no doubt, will be heard of again.

The *Cinnamon* prizes nearly all fell to Mr. Adams. Messrs. Moore & Wynn took third in Buff *Cinnamon*. Mr. Stewart repeated his York victory with a fine *Yorkshire* Yellow; Mr. Stevens being second. Messrs. Oliver & Holdsworth were first in Buffs. There was some trouble experienced over the *Yorkshire* Evenly-marked birds, which proved not to be so even as they ought to be. In Class 19 (No. 233), a bird exhibited by Mr. Belk had been much plucked on the right shoulder, between the shoulder and neck. In Class 20 (238), Evenly-marked Buff *Yorkshire*, a bird exhibited by Mr. Thackrey was tested and found to be painted, on the right eye in particular. The bird appeared to have beautiful eyes and splendid finish until the paint was removed.

Surely this could not have been the same bird as exhibited at Norwich. No. 240, in Class 20, also was proved to have had some of the feathers in the right wing cut off nearly close, the stumps of the pinions showing them to have been white feathers clipped off from amongst the dark ones, so as to give the smaller flight feathers in the wing a more even appearance. The bird was shown by Mr. Belk.

There were several good birds exhibited in the Any other variety class, and a very noticeable feature was the "sixes." Messrs. Mackley won an easy first with a beautiful lot of Jonques (Norwich). In the Goldfinch Mule class Mr. Bunting was first with a good one, a previous winner; Mr. Tenniswood being second with another previous winner. Mr. Cooper of Middlesborough, was third with a very deserving specimen, it being in splendid trim, marked on each eye and wing, and having a perfect clear tail. There were a few good Dark Mules, Mr. Hawman of Middlesborough being the principal winner. Class 27, Foreign Birds, Mr. Bunting was first with a fine King Parrot; second Miss E. Bowes with a Red-crested Grey Cardinal; and Mr. Calvert third with a Rosella Parakeet. Many capital Goldfinches and Linnets were shown, but Bullfinches were not so good. In the Any other variety of British birds, Mrs. E. Wallace was second with a Jay; the first-prize being the Starling, a winner of many prizes, shown by Messrs. Fryer & Holt. There was likewise a well-filled Selling class, no less than thirty-eight specimens.

The manner in which the Darlington Bird Show had been conducted admitted of no two ways of thinking. The temperature of the hall containing so many valuable specimens was studied, and the birds were well looked after. The Secretaries, Messrs. Watson and Stewart, and the Committee, appear to be the men in the right place. I left Darlington with that impression.—AN EYE-WITNESS.

Subjoined are the awards.

YORK.

BELGIANS.—1, T. M. Reid, Halifax. 2, L. Meinecke, Hull. *vhc*, J. Fawcett, Barnaby; R. Hawman, Middlesborough. *hc*, R. D. Waite, Malton; L. Belk, Dewsbury; J. Calvert, Bootham. *c*, R. J. Pope, Brighton; S. Bunting, Woodlark.

NORWICH.—*Clear Yellow*.—1, Orme & Asbley, Derby. 2, W. & C. Burniston, Middlesborough. *vhc*, J. Adams, Coventry (2); R. J. Fone, *hc*, J. Swain, Pickering; W. Smith, Birmingham. *c*, W. H. Batchelor, Whitby. *Clear Buff*.—1, W. Smith. 2, J. Adams. *vhc*, J. Adams; S. Roberts, Derby; W. H. Batchelor; T. M. Reid; G. Cox, Northampton.

NORWICH.—*Evenly-marked Yellow*.—1, W. Smith. 2, G. Cox. *vhc*, T. Clemenson. *Evenly-marked Buff*.—1, J. Adams. 2, T. Clemenson. *vhc*, G. Cox; Martin & Griffin, Northampton; W. Clarkson, Hull; Quin & Son, *hc*, J. Goode, Leicester.

NORWICH.—*Ticked or Unevenly-marked Yellow*.—1 and 2, J. Adams. *hc*, Doman & Allen, Nottingham. *c*, G. Herbert, Alcester. *Ticked or Unevenly-marked Buff*.—1, T. Tenniswood, Middlesborough. 2, J. Adams. *vhc*, J. Adams; S. Roberts. *c*, J. Swain.

NORWICH.—*Clear or Marked, Dark-crested, Yellow*.—1, G. Cox. 2, W. J. Hampton, Darlington. *vhc*, S. Roberts; Doman & Allen. *Clear or Marked, Dark-crested, Buff*.—1, Doman & Allen. 2, G. Cox. *vhc*, Doman & Allen; Garnett & Smith; York. — Briskham, York; W. J. Hampton. *hc*, R. Hutchinson, Hull; W. Howard, Harrogate; Martin & Griffin; J. Green, York.

LIZARD.—*Golden-spangled*.—1, Clemenson & Ellerton. 2, Holdsworth & Oliver, Harrogate. *vhc*, R. Hutchinson, Kirmooroad; T. M. Reid; J. Swain, Darlington. *hc*, S. Bunting. *Silver-spangled*.—1, T. M. Reid. 2, W. & C. Burniston. *vhc*, R. Hutchinson; Burt & Blenstone, Manchester; S. Bunting; Petty & Cuss, York. *hc*, R. D. Waite; Clemenson & Ellerton.

CINNAMON.—*Jonque*.—1 and 2, J. Adams. *vhc*, R. J. Pope; G. Cox. *hc*, Martin & Griffin; R. Triffitt, York. *Buff*.—1, J. Adams. 2, W. Smith. *vhc*, R. J. Pope; Martin & Griffin (2). *c*, R. Simpson, Whitby.

YORKSHIRE.—*Clear Yellow*.—1, R. J. Stewart, Darlington. 2, J. Myers, Baildon. *vhc*, J. Thackrey, Bradford; J. Fawcett; J. Calvert. *hc*, Holdsworth & Oliver. *Clear Buff*.—1, J. Myers. 2, J. Fawcett. *vhc*, Holdsworth & Oliver; J. Myers; J. Calvert. *hc*, G. Grant, Beverley; Turner & Ellison, Dewsbury (2).

YORKSHIRE.—*Evenly-marked Yellow or Buff*.—1, L. Belk. 2, R. Hawman. *vhc*, T. Tenniswood. *c*, T. M. Reid; L. Belk. *hc*, R. D. Waite; J. H. Shepherd.

ANY OTHER CLASS OF CANARY.—1, J. Garbutt, Great Ayton. 2, J. Smeaton, Berwick-on-Tweed. *vhc*, W. & C. Burniston; J. Adams; J. Smeaton; J. Fawcett; L. Belk; R. E. Triffitt. *hc*, J. Shackleton; Burt & Blenstone; J. Myers; Quin & Son; R. E. Triffitt.

SELLING CLASS.—1, Orme & Asbley. 2, W. H. Batchelor. *vhc*, J. Adams; S. Roberts; Orme & Asbley (3); W. Clarkson, *hc*, R. Simpson; J. Thackrey; T. Clemenson; G. Cox. *c*, Martin & Griffin; Clemenson & Ellerton.

CAGE OF SIX CANARIES, IN VARIETY.—1, T. Clemenson. 2, J. Calvert. *hc*, J. Dawes, Scarborough. *c*, R. Reed, Walmgate; Garnett & Smith; Petty & Cuss.

GOLDFINCH MULES.—*Marked*.—1, W. & C. Burniston. 2, S. Bunting. *vhc*, W. Lister, Malton; Harland & Son. *Dark*.—1, G. Cox. 2, S. Bunting. *hc*, J. Shackleton; R. Hawman; J. Goode. *c*, W. Lister.

BRITISH BIRDS.

GOLDFINCH.—1, G. Cox. 2, H. West, Darlington. *vhc*, J. H. Shepherd; Garnett & Smith. *hc*, J. Rookledge; W. & C. Burniston; T. Tenniswood. *c*, W. Carrick.

BULLFINCH.—1, W. Lister. 2, W. & C. Burniston. *hc*, C. Hodson; Burt & Blenstone; H. Garbutt, Great Ayton; J. Calvert.

LINNET.—1, W. & C. Burniston. 2, W. Carrick. *hc*, H. West; R. D. Waite; W. & C. Burniston; J. Butterworth. *c*, J. Cudall.

JUDGE.—Mr. G. J. Barnesby, Derby.

DARLINGTON.

BELGIAN.—*Clear, Ticked, or Variegated Yellow*.—1 and 2, J. Rutter, Sunderland. 2, R. Hawman, Middlesborough. *vhc*, W. Bulmer, Stockton; J. Rutter (2); Sergeant-Major Paxton, Ulverston. *hc*, J. Hart, Stalybridge (2); J. Rutter (2); S. Tomlin, Baston. *Clear, Ticked, or Variegated Buff*.—1 and 2, J. Rutter. 2, Sergeant-Major Paxton. *vhc*, W. Bulmer; J. Moffat, Ulverston; J. Rutter (3); J. Moorhouse, Bradford. *hc*, J. Hart; J. Moffat; J. Rutter. *c*, J. Sumnerhill; W. Bulmer.

NORWICH.—*Clear or Jonque*.—1 and 2, J. Adams, Coventry. 3, G. & J. Mackley, Norwich. *vhc*, C. J. Salt, Burton-on-Trent; J. Adams; Orme & Asbley, Derby. *hc*, C. J. Salt (2); G. & J. Mackley. *c*, C. J. Salt; W. Simpson, Cockerton. *Clear Buff*.—1 and 2, J. Adams. *vhc*, G. & J. Mackley; J. Adams. *hc*, C. J. Salt; G. Cox, Northampton. *c*, C. J. Salt.

NORWICH.—*Jonque, Evenly-marked*.—1, Brown & Gayton, Northampton. 2, J. Adams. 3, Moore & Wynn. Northampton. *vhc*, T. Clemenson, Darlington; G. & J. Mackley (2); Moore & Wynn; G. Cox. *hc*, C. J. Salt; Sergeant-Major Paxton; J. Adams. *Buff, Evenly-marked*.—1, J. Adams. 2, G. Cox. 3, G. & J. Mackley. *c*, J. Salt; G. & J. Mackley; J. Adams.

NORWICH.—*Ticked or Unevenly-marked Jonque*.—1, 2, and 3, J. Adams. *vhc*, G. & J. Mackley. *hc*, Moore & Wynn. *Ticked or Unevenly-marked Buff*.—1, 2, and 3, J. Adams. *vhc*, Clark & Newton, Nottingham; C. J. Salt (2); G. & J. Mackley. *c*, J. Calvert, Bootham, York.

NORWICH.—*Any variety of Crested Yellow*.—1, R. E. Triffitt, York. 2, W. J. Hampton. 3, Clark & Newton. *vhc*, Clark & Newton; Brown & Gayton; G. & J. Mackley; G. & J. Mackley, Cockerton. *c*, Doman & Allen, Nottingham. *Any variety of Crested Buff*.—1, G. & J. Mackley. 2, R. Hawman. 3, G. Cox. *vhc*, F. J. Knages, Newcastle; Doman & Allen; G. & J. Mackley; S. Bunting, Derby; Moore & Wynn; Martin & Griffin, Northampton. *hc*, W. J. Hampton; J. Rutter; Thompson & Mount, Lancaster; G. Cox. *c*, R. E. Triffitt.

LIZARD.—*Golden-spangled*.—1 and 2, Clemenson & Ellerton, Darlington. 3, R. Ritchie, Darlington. *vhc*, T. W. W. Fairbrass, Canterbury (2); Oliver & Holdsworth, Harrogate; R. Rutter. *hc*, J. N. Harrison; G. Tuckwood, Nottingham. *c*, G. Tuckwood & S. Bunting. *Silver-spangled*.—1, R. Ritchie. 2 and 3, S. Bunting. *vhc*, G. Tuckwood; R. Ritchie; J. N. Harrison. *hc*, T. W. W. Fairbrass (2).

LIZARD.—*Golden-spangled, with Broken Cap, or Pied Wings or Tail*.—1 Clemenson & Ellerton. 2, S. Bunting. 3, T. W. W. Fairbrass. *vhc*, R. Ritchie. *hc*, Clemenson & Ellerton; R. Ritchie. *c*, G. Tuckwood. *Silver-spangled, with Broken Cap, or Pied Wings or Tail*.—1, T. W. W. Fairbrass. 2, R. Ritchie. 3, T. Clemenson. *vhc*, G. Tuckwood; R. Ritchie. *hc*, S. Bunting; J. N. Harrison. *c*, Clemenson & Ellerton.

CINNAMON.—*Jonque*.—1, 2, 3, and *vhc*, J. Adams. *hc*, C. J. Salt; J. Calvert. *Buff*.—1 and 2, J. Adams. 3, Moore & Wynn. *vhc*, J. Adams (2); G. Cox. *hc*, C. J. Salt.

YORKSHIRE.—*Clear Yellow*.—1, W. J. Stewart, Darlington. 2, J. Stevens, Middlesborough. 3, L. Belk, Dewsbury. *vhc*, J. Thackrey, Bradford; M. Toms, Darlington; H. Garbutt, Great Ayton. *hc*, Oliver & Holdsworth; J. Wilkison, Great Horton; W. Hutton, Baildon. *hc*, J. Cooper, Middlesborough. *Clear Buff*.—1, Oliver & Holdsworth. 2, G. Gott, Shipley. 3, W. Hutton. *vhc*, L. Belk; Clemenson & Ellerton. *hc*, W. Lickley, Ripon. *c*, Lennox & Renwick, Gateshead.

YORKSHIRE.—*Evenly-marked Yellow*.—1, J. Brook, Little Horton. 2, W. & C. Burniston, Middlesborough. 3, J. Wilkison. *vhc*, F. Tritscher, Harlepool. *hc*, J. Thackrey. *c*, W. Cotton, Middlesborough. *Disqualified*, L. Belk (chipped on right wing). *Evenly-marked Buff*.—1, J. Wilkison. 2, J. Hawman. 3, F. Tritscher. *Disqualified*, J. Thackrey (chipped on right eye); L. Belk (chipped on right wing).

YORKSHIRE.—*Ticked or Unevenly-marked Yellow or Buff*.—1, M. Holroyd, Great Horton. 2, W. Hutton. 3, M. Corner. *vhc*, G. Gott; G. Cooper, Darlington; W. Carrick, Middlesborough. *c*, Lennox & Renwick; Oliver & Holdsworth; J. Stevens.

CANARY.—*Any other variety*.—1, J. Brook. 2, T. Tenniswood, North Aeklam (Cinnamon marked). 3, C. J. Salt (Broken Buff Cinnamon). *hc*, C. J. Salt (Broken Buff Cinnamon); W. Bulmer (Coppiv); W. Cotton (Coppiv); W. & C. Burniston; J. Adams (Marked Cinnamon); W. Hutton; Fryer & Holt, South Stockton. *c*, R. Pearson, Wubthly.

CAGE OF SIX BIRDS.—1, G. & J. Mackley. 2, Clemenson & Ellerton. 3, T. Clemenson. *vhc*, J. Rutter; J. Adams.

GOLDFINCH MULE.—*Any description except Dark*.—1, S. Bunting. 2, T. Tenniswood. 3, J. Cooper. *vhc*, T. Alceby, Durham; H. Nevison, Willington; Hampton & Chamberlain; S. Bunting; K. Pearson; H. Thompson & Mount. *Dark Jonque or Buff*.—1, R. Hawman. 2, G. Cox. 3, J. Wilkison. *hc*, F. A. Parker. *c*, S. Bunting.

FOREIGN BIRDS.—*Any variety, including Parrots, Parakeets, Pheasants, Larks, &c.*.—1, S. Bunting (King Parrot). 2, E. Bowes, Darlington (Red-crested Grey Cardinal). 3 and *vhc*, J. Calvert (Rosella and Australian Parakeets). *hc*, W. Hampton (Parrot); W. Hodgson (Parrot); Miss C. Bowes, Darlington (Budgerigars); T. Iddison, Darlington (Parakeet). *vhc*, T. Tenniswood. *hc*, R. Hawman. 2, H. West. 3, S. Bunting. *vhc*, T. W. W. Fairbrass; H. Nevison; W. & C. Burniston; W. Carrick. *hc*, J. Cooper. *c*, F. A. Parker, Burton-on-Trent.

BROWN LINNET.—1, J. Bage, Middlesborough. 2, T. Allenby. 3, W. Carrick. *vhc*, J. Bage; H. Nevison; S. Bunting.

BULLFINCH.—1, Withheld. 2, J. Rowland, Skilton-by-the-Sea. 3, H. Nevison.

BRITISH BIRD.—*Any other variety*.—1, Fryer & Holt. 2, Mrs. E. Wallace, Darlington (Jay). 3, H. West, Darlington (Starling). *vhc*, T. Iddison (Starling); Mrs. E. Wallace (Starling). *hc*, Rev. G. Herbert, Bilford (Reed Bunting); O. A. Watts, Brixton (Blackcap); W. & C. Burniston. *c*, G. Cox.

SELLING CLASS.—1, T. Clemenson. 2, Moore & Wynn. 3, J. Adams. *vhc*, G. Cox. *hc*, Clemenson & Ellerton; Orme & Asbley (4). *c*, Clark & Newton; W. & C. Burniston; Clemenson & Ellerton; T. Clemenson; Martin & Griffin; Moore & Wynn.

SPECIAL EXTRA PRIZES.

For the best bird in classes 1 and 2, J. Adams.
For the best bird in classes 3 to 8, J. Adams.
For the best bird in classes 9 and 10, G. & J. Mackley.
For the best bird in classes 11 to 14, Clemenson & Ellerton.
For the best bird in classes 15 and 16, J. Adams.
For the best bird in classes 17 to 21, W. J. Stewart.
For the best cage of six, G. & J. Mackley.
For the best bird in classes 22, 23, and 24, S. Bunting.
For the best bird in classes 25 to 31, Fryer & Holt.
For the best bird in class 32, T. Clemenson.

JUDGE.—Mr. G. J. Barnesby, Derby.

SNEINTON (NOTT'S) CANARY SHOW.

On Saturday and Monday, the 21st and 23rd inst., a very good Show, being the annual one of the Nottingham Bird Society, took place at the Albion Hotel, Sneinton, Nottingham. The birds exhibited were almost solely confined to the Norwich breed, of which there were nine classes, and two classes for Lizards. The Exhibition proved an entire success, and was well patronised. The Honorary Secretary, Mr. A. Duke, with the assistance of a good working Committee, deserve all praise for their exertions. During the morning a dense fog prevailed, and judging was somewhat delayed, the public not being admitted (aye, not even the members of the press) until about one o'clock. Every facility was then rendered to the press in gaining the requisite notes, which proved to be a somewhat better plan than dodging about the elbows of a Judge during the discharge of his duties; this with numberless questions asked (especially if the "chief" taking notes is not well up), causes considerable delay.

There were many good specimens of the Clear Yellow, Clear Buff, and Marked, and Crested Norwich birds in the Show; the

prize birds in the two former classes especially being all that could be desired. They certainly were not so high-coloured as some exhibited at many of the previous shows, but for breeding purposes they were equal to anything. Considering that the first high-coloured birds originated from Nottinghamshire, I fully expected seeing something sensational.—AN EYE-WITNESS.

The following are the awards.

NORWICH.—*Clear Yellow*.—1 and 3, A. Duke. 2, E. Horsley. 4, W. Greaves. *Clear Buff*.—1 and 3, A. Duke. 2, W. Greaves. 4, J. Parr. *Ticked Yellow*.—1, J. Greaves. 2, H. Roe. 3, J. Baxter. 4, F. Nevett. *Ticked Buff*.—1, A. Duke. 2, F. Nevett. 3, J. Parr. 4, H. Roe. *Variegated or Even-marked Yellow*.—1, T. Clarke. 2, A. Duke. 3, T. Smeeton. *Variegated or Even-marked Buff*.—1, T. Clarke. 2, T. Smeeton. *Crested Yellow*.—1, G. Doman. 2, W. Elliott. 3, E. Horsley. 4, E. Garton. *Crested Buff*.—1, G. Doman. 2, W. Elliott. 3, E. Garton. 4, H. Flower.

LIZARDS.—*Golden-spangled*.—1, T. Smeeton. *Silver-spangled*.—1, T. Smeeton. *Selling Class*.—1, W. Greaves. 2, A. Duke. 3, E. Garton. 4, W. Elliott.

JUDGE.—Mr. G. J. Barnesby.

THE WASHING OF CAGE BIRDS FOR EXHIBITION.

(Continued from page 373.)

In continuing the remarks upon the subject of washing and preparing birds for show Mr. Barnesby says, "One advantage is to get through the operation as speedily as possible, keeping the birds warm the whole of the time. Do not have the water beyond blood heat for fear of injuring them, and previous to washing place in each bowl a small piece of soda (the size of a French bean), which assists in getting the dirt well out of the feathers. It will occupy about six or eight minutes to wash each bird, and from twenty minutes to half an hour drying. Have a good fire to dry with, but be careful not to place the birds too near for fear of burning them. When one is washed and placed in the drying cage proceed to operate upon another. As you find the first washed become dry, transfer them to another cage; this will prevent the early-washed birds from soiling the others, and will afford more room in the drying cage for the remainder. One drying cage will be sufficient for a dozen or upwards to become dry in." The foregoing extracts will suffice to convince fanciers that the washing process information is not just dawning forth.

In my earlier days of bird-breeding I well recollect an ardent lover of one of the choicest of breeds (the London Fancy) writing me stating it was "washing day" with him. I was temporarily in the dark as to what he meant. I must admit I didn't see it all at a glance, but I afterwards found out, and let someone else know. I often think I've a happy knack of letting out the secrets of the fancy. And why not? If men are straightforward and honest and pay their way to the very shilling (I was going to say farthing, but shilling will do), why should they be kept in the dark? I believe in getting possessed of as much knowledge as possible respecting the fancy, and not confining the matter to a few. The fancier above alluded to used to operate with the washing process never less than a week before he exhibited his birds. Now, I do not altogether fall in with this. Three days beforehand I think a nice time, for, if washed a week before showing, the birds' feathers will become contaminated with the smoky accumulations in the atmosphere.

Mr. Barnesby again states, "Birds kept in the country away from the smoke of a town very rarely require so much cleansing; but keep them how you may in a neighbourhood where there is much smoke, you cannot, even with close covering-up, prevent birds becoming soiled and dirty in plumage."

I have known fanciers wash their birds just prior to sending them off for show, but this is trying nature too much. By all means allow the birds time to recover from the effects of "soap in my eyes," as I have heard my youngsters announce to those who have been washing them. Three days beforehand is a nice period, and then you can have a little time to spare to give the birds a cold bath, which tends to place their feathers "as they were." Before placing your birds in the already cleaned and prepared show cages, see that there is no dust whatever in the cages; let them be as clean as pinks, and then you will not feel annoyed by seeing the foreheads and the end of the wings and tails soiled. This is all of vast importance in assisting you to win with your birds. Light-plumaged birds will soon show you the ill effects of being placed in dusty cages. Whilst the birds are in the show cages, prior to being safely packed up for departure keep them slightly covered over with some light cloth. Your wives, no doubt, will be able to assist you in this respect, especially if you treat them kindly, and make them a suitable present out of the winnings—if any.—A FANCIER.

MR. D. STEWART.—We regret to have to record the death of Mr. Daniel Stewart, of Perth, which took place on the 8th inst. Mr. Stewart was one of our best Scotch fanciers—one of the old Scotch Pouter breeders—and he was most successful. He was also for many years a breeder of Canaries of the "Scotch fancy," was long celebrated for his fine birds, and generally carried off the highest honours. Mr. Stewart was one of the most unassum-

ing men we ever knew, slow to bring himself into notice, always ready to listen and learn. His kind gentle manners and naturally amiable disposition endeared him to all who knew him, and his clear and sound judgment were always at the service of his friends. Mr. Stewart has been taken away, much regretted by his friends in the fancy, as well as by a large circle of others, and happily prepared for the great change.

NORWICH AND EAST ANGLIAN BIRD SHOW.

THE Norwich Show was an exceedingly fine one, bringing together many of the best birds in the country. The Exhibition, which was held in St. Andrew's Hall by the kind permission of the Mayor of the city, was the largest for cage birds yet held this season, no less a number than 840 birds having been entered for competition. Mr. Jacob Mackley proved himself to be a very able Secretary.

To attempt to enter fully into the merits of all the prize specimens, now that there are so many exhibitions being held, would occupy more of our space than we can well spare. Suffice it to say that the Canary classes of the Exhibition were well filled, the first twelve classes of the various breeds of Norwich being tenanted with 209 birds. There were twenty-one Belgian specimens, thirty-three Lizards, thirty-five Yorkshires, twenty-four Manchester Copsy or Plain Heads, thirty-two Cinnamons, forty-six Mules, the remaining classes being devoted to groups of six birds in each cage—British birds, birds of passage and migratory birds, foreign birds, a Selling class, with upwards of eighty in it, and fourteen cages containing stuffed specimens. Altogether the number of classes extended to over eighty. From this some idea may be formed of the magnitude of the Show. Messrs. G. & J. Mackley, of Norwich, alone entered 164 birds, and they were the winners of the silver cup presented by the Mayor of the city. Mr. J. Adams, Coventry, entered twenty-six; Messrs. Athersuch & Son, Coventry, twenty-one; Mr. Walter, Winchester, twenty; Mr. F. Alden, Norwich, seventeen; Messrs. Provart and Willis, seventeen; Mr. W. B. Hovell, Norwich, twelve; besides numerous others who brought up the rear in a very spirited manner. Although Messrs. Mackley Brothers entered so largely in the Norwich classes, Mr. Adams held his ground wonderful, but he was defeated by a majority of twenty-three points for the cup. Messrs. Athersuch & Son also exhibited many first-class birds, and obtained several high honours. In the Crested Norwich classes Messrs. Mackley were the principal winners, and these birds assisted chiefly in winning for them the special prize. There were a few good Belgians exhibited, and some excellent Lizards likewise. The eight prizes in the Cinnamon classes all fell to the lot of Mr. Adams. The Mules alone were worth seeing, many of the choicest specimens in the kingdom gracing the stages. The chief prizetakers were Messrs. Hawman, Hampton & Chamberlin, Wilkinson, Spence, Hutton, Stevens, Goode, and others. In the group of six Norwich Canaries, Messrs. Mackley took first, second, and third prizes. In the Lizard sixes there was no competition. The catalogue and prize list, which reflects credit on all who had the arranging and printing of it, was issued in good time for post (a most essential matter), thus preventing any disappointment to the exhibitors, and saving annoyance, extra expense, and correspondence to both the Committee and Secretary. The Exhibition was well backed up with a long list of patrons, and possessed an able and practical Committee of Management.

CURE OF CHICKEN CHOLERA.—Take of essence of Jamaica ginger one table-spoonful and put it into enough of water to mix into dough one quart of meal, and feed three times daily. The essence of ginger can be procured of any druggist. This is said to be unfailing.

BYGONE BEE-KEEPING.

I WAS brought up and lived until twenty-four years of age in a small hamlet in Shropshire, where there were from thirty to forty cottages within a radius of about half a mile, every occupier of which kept bees. The householders were chiefly labourers, not earning more than 7s. to 10s. per week; the rents ranged from £3 to £5 per year, which they reckoned to pay from profits on their bees. Boxes were then unknown for bees; the villagers had but few straw hives, they made hives from osiers, each making his own in the long winter evenings. When the osier work was sufficiently dry they plastered the hives over with a mixture of half lime and half cowdung, when they were ready for use. The men, being away from home all day, the women generally managed the bees, so the people had a notion that the bees would not work for two masters. If a member of the family died some one had to go and tell the bees, otherwise it was thought these would all die.

If you looked over the garden you would see a few osiers growing in some corner, and amongst them straight pieces left about a foot long, which the cottagers called foundations for

future hives; the shoots breaking out round the top of the straight piece were trained for side supports. The straight piece formed a handle at the top of the hive. Straw was tied-up at one end like a birch-broom for a covering in winter, which was called a hackle. The loose ends of the straw were opened out round the hive, pressing the tied-up end down upon the peg at the top, and then tying it round with string. This was all the covering afforded. I have known as much as £10 made from bees in a favourable season. I knew one poor old widow, with a son a cripple, who would have had to end her days in the Union if it had not been for her bees. Since writing before, I have read in a book on insect architecture an account of black bees. One hinks them old worn-out workers; the other, that they are young bees, caused by some defect in the interior of the hive; he last is my own opinion, as they all appeared to be young.—J. R., a Working Gardener.

HIVES.

MR. PETTIGREW appears to be a very practical man, and as a gentleman argues with good temper, and, I believe, is solely actuated by a desire to express his honest conviction, for the benefit of the readers of this Journal, that straw is better than wood for a bee hive. In this opinion he is far from being alone; and I assert, whether "B. & W." considers it *reasonable* or *unreasonable* contradiction, that wooden hives are not so profitable in their results as straw hives; and further, I cannot agree with "B. & W." that in point of interest and perfect mastery of the science of bee management, the wooden and the bar hives carry the day. I maintain that during the summer it does not matter so much what the material of the hive is, but in winter it is of great importance. In summer a wooden hive is more likely to have its combs melted by the heat than a straw one would be, on account of the greater conducting power of wood; and for the same reason straw, being a bad conductor of heat, is less likely to part with its internal warmth in winter. Wood, also, presents a colder surface inside the hive than straw; therefore more of the moisture arising from the bees is condensed in a wooden hive than a straw one. The conclusion is, that a straw hive, whether lined with propolis or not, is in winter both warmer and drier, consequently more conducive to health in the hive and ultimate profit.

As to the Crystal Palace Show, it is well known there was no exhibition of straw hives, therefore no comparison could be made; and if there had been, it is quite possible to get as much honey from a wooden box as a straw hive if the internal dimensions are the same. The true test of the value of either is in its suitability as a winter protection to the bees. Many bee-keepers keep their opinions of the straw hives to themselves, but prove their appreciation of them by using scarcely any other.

In the true interests of economical bee-keeping I hope this controversy will not cease, but that by the aid of controversy bee-keepers may at last become convinced by the truth of plain facts, either that the old straw hive made of a larger size with a 4-inch hole at the top, or a wooden box, is the most "profitable" hive in which to keep bees. I say nothing about bar frames, because that I think is not at the present moment the question.—APICULA.

THE well-timed remarks of your able correspondent "B. & W." in your last issue must have come home to the sympathies of many of your readers. The repetition by Mr. Pettigrew of his view of the relative merits of hives may well now have a pause; but I cannot restrain a remark or two in reference to his critique upon bar-frames. Let me first say that the whole premises of whatever argument there may be connected with his assertions is erroneous, since it seems to be taken for granted, if in the absence of the bee-master or any system of management, bees can and will store an equal amount of honey in a skep as in a bar-frame hive, the utility, or at least the superiority, of the latter is disproved.

The mobility of frames gives the bee-keeper who understands his art, the power of enormously distancing anything that even the Pettigrew skep can accomplish; but all will freely admit that if the hive be in the hands of those unable to take advantage of the character of its construction, it will not surpass good hives with fixed combs. The tyro can discompose music as sweet upon a barrel organ as the most accomplished musician can elicit; and, from much the same cause, with skeps the beginner and the bee-master are upon pretty equal footing. Hence many in the first year of their apprenticeship are "fully convinced of the superiority of the Pettigrew hive;" but when we remember that with moveable combs we can equalise stocks both in bees and stores; cut out queen cells and prevent casting; stop the raising of unnecessary drones; swarm artificially with extreme ease and certainty; raise queens in nuclei, and subsequently restore the combs and bees to stocks from which they were taken; ascertain the absence of queens, disease, &c., by simple inspection; easily insert new queens; promote breeding by enlargement of the brood nest; throw out honey by the

slinger, &c., can we doubt which is the hive for the bee-master? and who keeping bees does not desire to progress and become one?

Mr. Pettigrew, however, concedes that we are improving the bar-frame hive in removing the bottom rail of the frames, which he says enables the bees to make their combs $1\frac{1}{2}$ inch longer. The $1\frac{1}{2}$ inch should have been half an inch. But let this pass. Singularly the "doubtless" improvement upon which Mr. Pettigrew alights is the alteration above all others recently introduced, which is only on its trial, and which many whose opinions must be respected regard as a defect. At least the following objections may be taken to it.

When the swarm is placed in the hive the bees' warmth and moisture soften the wood, and should their weight pull down the centre of the bar one-tenth of an inch (the calculation is made for the Quinby size), the uprights are played a quarter of an inch, and brought into contact with the hive-side to be immediately propolised. The bees also will occasionally attach their combs to the bottom board. In one of my hives this summer ten queen cells which I desired to insert in nuclei were built on the bottom of a comb so near the rail that I could not cut them out without risk, and so the rail was at once removed. Soon afterwards this frame was fixed, and upon pulling it out I found the comb built to and attached upon the floor board, so that some length of it was broken off. It is moreover not proved that the bottom rail is a disadvantage. Experience has shown that good ventilation beneath the combs greatly aids in wintering; and while comb-building, the bottom rails give the bees forming the last rounds of the living ladder convenient standing room without at all interfering with the busy journeyers beneath.—F. CHESHIRE.

CRUDE HONEY.

WHAT is honey? Mr. Pettigrew says it is a substance which bees gather in the flowers. It is a liquid crude syrup, which gets its peculiar flavour from the plant, this flavour existing in the syrup found in the flowers. To this definition of honey he further adds that its crudeness is removed by the bees, who "sweeten as well as thicken the syrup or nectar," and that "after it has been twice swallowed and disgorged it is perfect, whether found in the combs sealed or unsealed."

Although Mr. Pettigrew satisfactorily answers my question as regards the taste of honey, I cannot be sorry I put it to him in the interests of scientific knowledge, because it has elicited from him a fuller statement of what I must call his wonderful discovery as to the origin of the richness and sweetness of honey. The source of it all is to be found in the stomach of the bee. There the acrid substance gathered in the ivy blossoms, as well as the nectar extracted from the million flowers of spring, find their sweetness. Now, to believe this it is necessary to believe that the stomach of the bee possesses a reserve of saccharine matter of most extraordinary quantity or concentrated power, considering that honey is little else than sugar slightly diluted. Does Mr. Pettigrew believe this? Imagine the stores of sugar which a hive of bees on this theory contrive to carry about with them night and day, for it must lie hidden somewhere within the body of the insect. Hitherto we have supposed that sugar has been one of the peculiar bounties of mother earth, the true "extrait de millefleurs," the elixir of life, which constitutes the excellence and nutriment of all the vegetable produce of our fields and gardens, from the delicious blades of summer-grown pastures, whence the rich milk and butter and cheese of our dairies, up to "bread that strengthens man's heart." Not so, quoth Mr. Pettigrew, at least in the exceptional case of the sugar in honey; that is elaborated within the body of the bee. There is little or no sugar in the crude and liquid substance which flowers give forth; that is a vulgar error of the nineteenth century. They "sweeten" it within their own stomachs "after it has been twice swallowed and disgorged!"

I should not have referred to the matter again if, as in the case of stick-and-straw hives, Mr. Pettigrew had not again thrown down the gauntlet by his repeated advancement of a mere theory of his own, as if it were an undoubted fact, as fully demonstrated as a mathematical truth. I am tempted to ask him in conclusion, why it is he advocates the feeding of bees with such quantities of sugar? Would it not be sufficient to supply them with a decoction of ivy leaves macerated in water? After swallowing and disgorging this a sufficient number of times it would become "perfect, whether found in the combs sealed or unsealed."—B. & W.

OUR LETTER BOX.

CRYSTAL PALACE SHOW.—The address of Miss Pasley, who took a prize, is Moorhill, Farcham, Hants. Mrs. Cross, who won the second prize for Crève hens, resides at Appleby Vicarage, near Bigg, Lincolnshire. Mr. T. Wakefield took the fourth prize for Ronen Ducks.

YARMOUTH POULTRY SHOW.—You state that the majority of cups can only be won by local exhibitors. Such is not the case. If you refer to our schedule you will find there are only four local cups—three for poultry, and one for Pigeons.—F. W. MARSHON.

WHITE COCHINS (Ignoramus).—The first thing you have to do is to select your best birds. Size is an essential for Cochine-Chinas. Combs, both in cock and pullets, must be quite straight; the serrations stiff, upright, and well defined. Both or all the birds in the pen should match exactly in colour. Avoid mealy winners in the cock, or anything like necklaces in the pullets. No culture books. The birds intended for exhibition should be put by themselves, not only because they want to be more cared for than the run of the poultry, but in order that when they are confined in a small pen they may agree. If you can do so, make them a small run by themselves. Feed them on ground oats slaked with milk morning and evening, with kitchen or table scraps in the middle of the day. If you have no run that affords grass, give them every day two or three large sops out with plenty of earth. You may also throw into their run at times eighteen or twenty grains of Indian corn or barley, odd scraps of bread, or anything of the sort. They must not have food by them. Some dry road grut under cover is a good thing for them to dust in. As accidents will happen, it is not safe to trust to one pen only; you will, therefore, be wise to have two ready, and, if all go well, you can then send the best. If at any time you think you will break up and re-make the pens by changing birds from one to the other, the alteration should be made a week before they leave for exhibition. There is no hope for success where the cock beats his hen. It is only under exceptional circumstances fowls want washing. You may, with a piece of flannel wetted with soap and water, wash the feet and the unfeathered parts of the legs.

CHICKEN MANAGEMENT (E. W.).—Do away with the sawdust. They pick it up, and it is bad for them. What is the floor under the sawdust? Your food is very bad. You will never have healthy birds while you feed on potatoes. If you have no farmyard where the chickens can feed, they should be fed by hand three times per day. They should have barley meal or ground oats slaked with milk or water twice per day, morning and evening. They may at midday have scraps of bread or meat, or whole corn, maize or barley, more of the latter than the former. As we should be disposed to believe your fowls are choked with sawdust, we advise you to give each of them a table-spoonful of castor oil, and then to feed as we have advised.

PARTS OF FOWLS (A. P.).—In a recent number (No. 686) we have published engravings with references showing the names of all the parts. In a previous number we also published an engraving of a vulture hook.

HENS PLUCKING THEIR MATE (L. J. R.).—Take him from the hens and let them run alone. Turn him among them every morning for half an hour before they are let out. Watch him and them. It is very likely there is only one offender. If it be so, take her away, and then let him run with the hens.

ORNAMENTAL WATERFOWL (T. H. T.).—You will not be able to buy any of the common wild fowls till next February or March, when they come from Holland, nor is it advisable to do so, as it is a trying time with fresh birds when the water is frozen. The precautions you mention are not necessary when the birds arrive. If they are in good condition they may be turned at once on to the water, care being taken that they shall at once find food there. Bread is the best for this purpose, because it swims. You have only one thing to avoid, that is handling them. Take the basket near to the water, cut it open, and let them run out. We should advise the netting 3 feet high. They cannot climb a bank 2 feet high, but, as we stated before, there must be landing places cut through such a bank, or the birds will drown. Black East Indian Ducks need not be pinioned, Carolina Ducks must. Ducks want no roosting places beyond the shelter of the shrubs. They will choose the spots that afford most protection. Unless the Carolinas have boxes they will not breed, because they will drop their eggs about.

FATTENING TURKEYS (G. M.).—Turkeys that are intended for Christmas should not yet be shut up, but you may help them along by feeding them well on nourishing food, such as ground oats mixed with milk, and a portion, one-tenth part, of pea meal. They may be put on the same when they are shut up. They put on great weight in the last month.

KILLING COCKERELS BEFORE PULLETS (J.).—You ask why we always advise to kill cockerels before pullets. Because they attain size earlier; because they become hard earlier than the pullets; and finally, because not being egg-producers, they can make no return for the food they have eaten.

LARK DISORDERED (L. C.).—We fear the symptoms indicate inflammation of the bowels. Feed on bread and milk. Put two or three drops of sweet nitre into the water, and let the bird eat as much lettuce as it will. We fear your bird has been too long afflicted to permit a strong hope of its recovery.

FLOORBOARDS OF HIVES (J. L.).—Clean the floorboard of each hive by scraping it with a knife, and brushing it afterwards with a dry brush, and see that each hive stands firmly on its pedestal, and is well defended against wet; and, for effecting this especially during winter, we have never yet found anything equal to the milk-pail, heavy and unsightly as it is unquestionably is.

ENTRANCES OF HIVES (Edward).—The entrance to the hives must now be narrowed, so that only two or three bees can come out at the same time; for, at this season, mice are very likely to lodge themselves in the hives, and they are very hurtful and destructive to the bees; for, having once lodged themselves in a hive, its entire destruction will be effected by them in a few days.

RAVENS, &c. (A Constant Reader).—We do not remember what you refer to.

HOESE-KEEPERS' BOOK (An Old Subscriber).—We never published one.

TERRIER DISTEMPERED (P. M. N.).—Five four grains of blue pill, and a dessert-spoonful of castor oil four hours afterwards. Keep the dog from being chilled. Feed on bread and milk until well. You feed the dog too much on the meat you name.

COVENT GARDEN MARKET.—NOVEMBER 25.

A fair supply is kept up, and the attendance is quite equal to former years at this season. A fresh arrival of Pines from St. Michael's has just been offered by the brokers in good condition, prices ranging from 15s. to 21s. each. Hot-house Grapes have slightly advanced in price.

FRUIT.

	a. d.	s. d.		a. d.	s. d.
Apples.....	sieve	1 0 to 1 6	Mulberries.....	½ lb.	0 0 to 0 3
Apricots.....	doz.	0 0 0	Nectarines.....	doz.	0 0 0
Cherries.....	½ lb.	0 0 0	Oranges.....	½ 100	8 0 12 0
Chestnuts.....	bushel	10 20 0	Peaches.....	doz.	0 0 0
Currants.....	sieve	0 0 0	Pears, kitchen.....	doz.	2 0 3 0
Black.....	do.	0 0 0	dessert.....	doz.	1 0 3 0
Figs.....	doz.	0 0 0	Pine Apples.....	lb.	2 0 0 0
Filberts.....	lb.	1 0 1 6	Plums.....	sieve	0 0 0
Gobs.....	lb.	1 0 1 6	Quinces.....	doz.	0 0 0
Gooseberries.....	quart	0 0 0	Raspberries.....	lb.	0 0 0
Grapes, hot-house....	lb.	1 6 0	Strawberries.....	½ lb.	0 0 0
Lemons.....	½ 100	8 0 12 0	Walnuts.....	bushel	10 0 16 0
Melons.....	each	1 0 3 0	ditto.....	½ 100	1 0 2 0

VEGETABLES.

	a. d.	s. d.		a. d.	s. d.
Artichokes..... doz.	0	0 to 0	Leeks..... doz.	0	3 to 0
Asparagus..... ½ 100	0	0 0	Lettuces..... doz.	1	0 2 0
French..... per bundle	30	0 0	Mushrooms..... pottle	0	9 2 0
Beans, Kidney..... ½ sieve	0	0 0	Mustard & Cress..... punnet	0	2 0 0
Broad..... bushel	0	0 0	Onions..... bushel	3	0 6 0
Beet, Red..... doz	1	0 8 0	pickling..... quart	0	6 0 0
Broccoli..... bundle	0	1 1 6	Parsley per doz. bunches	2	0 4 0
Brussels Sprouts ½ sieve	2	0 3 0	Parsnips..... doz.	0	9 1 6
Cabbage..... doz.	1	6 2 0	Peas..... quart	0	0 0 0
Carrots..... bunch	4	0 6 0	Potatoes..... bushel	2	0 4 0
Capstems..... ½ 100	0	0 0	Kidney..... doz.	3	0 6 0
Cauliflower..... doz.	3	0 6 0	Radishes..... doz. bunches	1	0 1 6
Celery..... bundle	1	8 2 0	Rhubarb..... bundle	0	0 0 0
Coleworts..... doz. bunches	2	4 0 0	Salsify..... bundle	1	6 0 0
Cucumbers..... each	0	1 6 0	Scorzonsa..... bundle	1	0 0 0
pickling..... doz.	0	0 0	Sea-kale..... basket	2	0 3 0
Endive..... doz.	2	0 0 0	Shallots..... lb.	0	6 0 0
Fennel..... bunch	0	3 0 0	Spinach..... bushel	2	0 4 0
Garlic..... lb.	0	6 0 0	Tomatoes..... doz.	0	0 2 6
Herbs..... bunch	0	3 0 0	Turnips..... bunch	0	4 0 0
Horseradish..... bundle	3	0 4 0	Vegetable Marrows..... doz.	0	0 0 0

METEOROLOGICAL OBSERVATIONS.

CAMDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W.; Altitude, 111 feet.

DATE.	9 A.M.				IN THE DAY.					
	Barom-eter at sea and level.	Hygrom-eter.		Direction of Wind.	Temp. of Soil at 1 foot.	Shade Tem-perature.		Radiation Temperature.		Rain.
1874.		Dry.	Wet.			Max.	Min.	In sun.	On grass.	
Nov.										
We. 11	Inches. 30.161	deg. 51.8	deg. 83.0	N.W.	deg. 46.6	deg. 41.8	deg. 50.6	deg. 73.4	deg. 28.5	In. —
Th. 12	30.914	53.2	82.8	N.W.	44.0	41.8	29.5	71.4	28.2	0.041
Fri. 13	29.736	50.9	89.2	N.W.	41.6	45.2	32.6	77.8	30.9	0.010
Sat. 14	30.371	43.1	87.5	N.	42.8	48.8	33.9	55.5	30.7	0.050
Sun. 15	29.995	42.5	82.5	N.	43.2	49.0	35.8	51.5	32.1	0.110
Mo. 16	29.698	45.5	82.4	W.	44.5	55.3	39.8	50.9	35.6	0.115
Tu. 17	29.718	47.4	81.8	N.	45.0	49.4	45.5	76.0	32.8	0.100
Means	29.946	40.3	88.9		44.2	46.6	35.5	69.4	32.4	0.436

REMARKS.

- 11th.—Bright, cold, but very fine day.
 12th.—Very bright pleasant day, but the wind very cold.
 13th.—Rain in the morning, but fine afternoon and night.
 14th.—White frost early; fine but not bright in the after part of the day.
 15th.—Raining damp morning; dull wet day throughout, but rather better at night.
 16th.—Fine sunny morning, dull afternoon, and wet at night.
 17th.—Dull damp morning, getting gradually better; very bright afternoon, and fine evening, but wet night.
 Much colder than last week, and frost on most nights. Air frequently very damp.—G. J. SYMONS.

DATE.	9 A.M.				IN THE DAY.					
	Barom-eter at sea and level.	Hygrom-eter.		Direction of Wind.	Temp. of Soil at 1 ft.	Shade Tem-perature.		Radiation Temperature.		Rain.
1874.		Dry.	Wet.			Max.	Min.	In sun.	On grass.	
Nov.										
We. 18	Inches. 29.873	deg. 51.8	deg. 59.6	W.	deg. 45.8	deg. 54.3	deg. 43.8	deg. 59.8	deg. 39.6	In. 0.020
Th. 19	29.793	45.5	46.5	W.	47.6	50.8	47.1	55.1	44.0	0.563
Fri. 20	29.867	43.0	49.1	N.W.	45.8	48.0	39.4	78.4	36.1	—
Sat. 21	30.146	31.3	31.2	W.	43.9	39.8	80.1	53.0	30.8	—
Sun. 22	30.197	28.4	28.2	W.	42.5	32.1	55.0	33.4	24.6	—
Mo. 23	30.142	31.6	30.6	N.	40.6	39.8	25.8	69.1	26.7	—
Tu. 24	30.191	29.7	29.8	N.	39.7	35.5	27.6	31.8	26.1	0.060
Means	30.011	37.6	36.7		43.7	43.0	34.2	51.8	32.5	0.188

REMARKS.

- 18th.—Rain in the night and morning; damp and all but raining all day; much warmer.
 19th.—Fine morning, but rather hazy; rain before 11 A.M.; very bright for an hour or two in the afternoon; dull evening, but fine night.
 20th.—White frost in the morning, splendidly bright at noon, and very fine all day and night.
 21st.—Foggy till noon, then brighter till between 2 and 3 P.M., when it was very thick, but not as dark as it is sometimes.
 22nd.—Foggy all day, particularly so in the early afternoon, but cleared off about 8 P.M.
 23rd.—White frost and rather hazy, but soon cleared off; a splendid frosty day and moonlight night.
 24th.—Still frosty; a dull hazy day without rain or sunshine.

Rather sharp frost during the last two or three days, producing, in conjunction with the fog, two irregular phenomena. (1) The minimum temperature on the 21st was lower in the air than on the grass, because the latter was kept warm by proximity to the soil. (2) The temperature in the sun was lower than that in the shade on the 24th, because, though the sun was wholly obscured, there was occasionally clear sky in the zenith; therefore the sun thermometer was cooled by radiation, while it was not raised by sunshine.—G. J. SYMONS.

WEEKLY CALENDAR.

Day of Month	Day of Week.	DECEMBER 3-9, 1874.	Average Tempera ture near London.			Rain in 49 years.	Sun Rises	Sun Sets.	Moon Rises.	Moon Sets.	Moon's Ago.	Clock after Sun.	Day of Year.
			Day.	Night.	Mean.	Days.	m. h.	m. h.	m. h.	m. h.	Days.	m. s.	
3	TH	Caspar Bauhin died, 1624. 2 SUNDAY IN ADVENT. Twilight ends 5.55 P.M.	47.0	35.8	41.4	21	49 at 7	51 at 3	45 1	37 1	24	10 0	337
4	F		48.1	36.4	42.3	20	50 7	51 3	55 2	47 1	25	9 35	338
5	S		49.0	35.2	42.1	25	51 7	50 3	5 4	50 1	26	9 11	339
6	SUN		48.2	36.7	42.4	22	53 7	50 3	17 5	13 2	27	8 45	340
7	M		48.4	38.5	43.5	21	53 7	50 3	31 6	33 2	28	8 19	341
8	TU	Rivinus born, 1652.	46.9	33.6	40.3	19	55 7	49 3	45 7	57 2	29	7 53	342
9	W		46.7	34.9	40.8	17	56 7	49 3	56 8	34 3	●	7 26	343

From observations taken near London during forty-three years, the average day temperature of the week is 47.7°; and its night temperature 35.9°. The greatest heat was 63°, on the 7th, 1856; and the lowest cold 13°, on the 8th and 9th, 1867. The greatest fall of rain was 1.02 inch.

PERPETUAL ROSES.



It is a long time since I sent a line to your columns, and as they of late have contained but scant allusion to Roses, I think in this gloomy season it would be interesting to many readers of "our Journal" if some of the large Rose-growers were to give their experiences as to the "perpetual" qualities of Roses called "Hybrid Perpetuals."

Now it is very evident that many so called do not bloom twice, such as Miss Ingram, Boule de Neige, &c. I am aware that Miss Ingram is properly a summer Rose, but Keynes and others place it in their catalogues among the Hybrid Perpetuals, and so people who are not well acquainted with Roses are often misled.

My object in writing is to point out what are the most constant bloomers in my collection. First and foremost, then, with me is Abel Grand; except Lamarque on a south wall no Rose is earlier, and no Rose blooms later than this charming silvery pink one. Next to it, among the Hybrid Perpetuals, is the coarse and by many discarded Rose Souvenir de Julie Gonod. This in my nursery is as full of bloom as a Gloire de Dijon in summer. Then come Marie Baumann, Mlle. Eugénie Verdier, La France, and Charles Lefebvre. Among the Teas Madame Willermoz is wonderfully perfect, I could send you blooms picked on the 23rd of November which are really exquisite. Niphetos, also, is a very constant late bloomer, and the new and ever-charming Marie Van Houtte.

Hurrah for the Teas! Messrs. Editors. Mr. Cant writes me word that his orders for Teas are so overwhelming that he literally cannot send me the trees that I ordered of him at the Crystal Palace Rose Show! He has to beg for time till he can scour the country for Teas. How refreshing such intelligence is to me in this dull November weather you may understand; for I feel sure that we shall see more Teas in our boxes at next year's shows.

What a wonderful autumn [this was dated November 26th] we are having! In my churchyard at the present time there are the following flowers and shrubs in bloom: Gladiolus, Clematis Standishii, Clematis Rubella, Passiflora carulea, Veronicas, Rhododendron (Amilcan) second time, Myrtle, Rose Madame Trifle, and various Hybrid Perpetuals, and of course Chrysanthemums. Strawberries are in flower, and their fruit setting, so that if there is no frost we may, perhaps, gather fruit on Christmas-day; and Peach trees are covered with bloom buds. But everything points to but one sad end—a late, yes, very late spring frost, and if that comes like it has for three years in succession here, where shall we be? The answer is, "Up a tree."—J. B. M. C., Charmouth.

[Our correspondent adds this postscript:—]

"It has nothing to do with Roses nor gardening, but I cannot resist sending you the following true anecdote, which you can insert or not as you please. At my native

No. 714.—VOL. XXVII., NEW SERIES

place in Yorkshire the good folk have lately erected a grand large organ in the parish church, with all the newly-invented combinations, composition pedals, &c. The old organist who had for a quarter of a century played at the church was considered unable to manipulate the new instrument, and was pensioned-off. It happened, however, that the new organist was a non-resident, who, in order to catch the last train, had to leave before the evening service was over, and who consequently left his predecessor to play the last hymn. As the old man was not equal to playing the pedals, he gave him directions to make the bass as loud as was needed to make up for the want of the pedal pipes. This the old man did to such a wonderful extent that when he began, it was *bass et præterea nihil* (all bass and no treble). In despair the poor old fellow put his foot on a composition pedal, in the hope that the builder's ingenuity would make it all right. But such a hideous screech came next that he stopped suddenly, and from the organ loft a voice broke the awful silence, declaring in piteous but exceedingly distinct tones, 'I can make nought of it.'

[Our correspondent says this has nothing to do with gardening, but we fancy that what he had just written about a late spring frost suggested the anecdote, because then every outdoor-Rose gardener, like the organist, may truly exclaim, "I can make nought of it."—EDS.]

WINTER CUCUMBERS.

As Mr. Taylor has written so well on this subject, I venture to give the culture as practised here, and its results.

The seeds are sown four in a 48-sized pot, and placed in a temperature of 70° by night, and 75° by day, sun heat 80°. As soon as the first rough leaf is formed the seedlings are potted singly in 60-sized pots, and repotted again if the house is not ready for their reception. Before I proceed further I will describe a little what the house is like. It is a small lean-to, separated from the plant stove by a glass partition, and faces due south, but owing to a building directly in front the sun does not strike on it at this time of the year until about two in the afternoon, which of course is a drawback. A flow and return pipe runs under the bed for bottom heat, and is covered with brick rubble, &c., and a flow and return passes round the bed for top heat. The house is directly over the stokehole, which has a considerable amount of piping, consequently there is no lack of heat.

The compost used is a mixture of leam, leaf mould, and dung from an old spent hotbed. This being placed on the brick rubble, and left a day or two to get warm, the plants are then inserted along the centre of the bed, and watered to settle the soil about their roots, and a temperature of 70° by night, 75° to 80° by day, and 85° by sun heat is maintained. The plants grew vigorously for a time, and produce two or three good fruit, and then seem worn-out, and I think, with Mr. Taylor, that the high temperature has a great deal to do with their ceasing to

No. 1366.—VOL. LII., OLD SERIES.

bear so soon; but I am acting under another's direction, I cannot use my own judgment. If I could I would certainly give Mr. Taylor's plan a trial.

The house is kept well damped down, but in spite of this the red spider continues to trouble us. Syringing is then freely applied to destroy this troublesome little pest; then mildew follows, when we use flowers of sulphur distributed on the leaves through a muslin bag; but as soon as we get clear of one pest we get another as bad, and an ever-watchful eye is needed to keep them clear and in good growing order.

Would it not be better if there were two pipes round the bed for top heat, as the water in them has often to be kept boiling to maintain the required temperature, rendering the atmosphere hot and dry? The variety used here is Rollisson's Telegraph.

Permit to ask others who maintain this high temperature if they meet with good results. I for one, and no doubt many more young gardeners, would be glad to learn the right way to grow good Cucumbers during the winter months. Nothing does more credit to the gardener than a good house of Cucumbers.—S. J. A.

ERYTHRINA CRISTA-GALLI CULTURE.

THIS, "the Coral Plant," introduced a century back, is now but seldom seen, except in the large gardens of places of some note.

For being grown well few plants are more accommodating; it may be flowered either as an early stove or late greenhouse plant, on a conservatory wall, or even in a warm open border, with a little care. It may be had in bloom early in spring by placing a plant in the stove not later than Christmas, and a succession may be kept up by starting at intervals.

In the greenhouse, if kept rather close when beginning to grow, the plants will bloom freely about midsummer; while if started in a common hotbed in March, and then gradually hardened off, they will bloom in May and June.

It is best to commence with young plants, and give liberal treatment to encourage luxuriant growth; for the stronger the growth and the finer the foliage, the stronger will be the crown of the plant, and consequently the more vigorous the supply of shoots.

In the following season the plants should have large shifts, and a free supply of liquid manure, with plenty of drainage.

The most suitable compost I have always found to consist of three parts fibrous peat, two of fibrous loam, and one part a mixture in equal quantities of leaf mould, well-rotted sheep dung, and silver sand.

A gentle bottom heat is very useful in obtaining a good supply of roots. The temperature of the house need not be more than about 60°. When the plants have made some progress let air be given to prevent the shoots being drawn up, and give them a good syringing every evening.

Erythrina is one of the finest plants I have ever grown against a conservatory wall, where it flowers beautifully. If grown in the flower garden, the best plan is to take the plants up at the end of autumn, keeping them out of the reach of frost, and nearly dry till spring.—W. GILES.

PRIMULA JAPONICA CULTURE.

THIS beautiful winter flower in most places will be making a start to do its best. Of course it can be had in flower earlier, but the blooms are wanting in colour and substance, and always appear to me to be out of season. I want my earliest in flower about the middle of November, which I manage to get near the mark by sowing on the 1st of June; and as some of them are a little behind the others, they make a succession for some time, to be followed by a later lot some two or three weeks after the first batch, which keeps up a good show until late in the spring.

When the plants in the seed pans are large enough to handle I put them singly into thumb pots in a mixture of loam, peat, well-rotted leaf mould, and a good share of silver sand. The subsequent pottings into 48's and 32's, less sand must be used, and in addition charcoal broken small. The tendency the plants have to fall sideways can be remedied by settling them down a little at each potting. My second batch are flowered in small-sized pots. Primulas with poor blooms will make a good show, but now that so many advertise their "choice strains," a poor Primula bloom ought not to be seen.

I once had the misfortune to be taken-in with some Primula

seed I paid a high price for. After incurring some trouble in growing the plants, I was rewarded with a lot of colourless flimsy rubbish, but fortunately at the same time I had a few plants from another source that were very good, so from those I determined to save my stock to prevent future disappointment, also to see how long the seed would keep and germinate. This is the seventh year I have sown and grown from my first packet of seed, and the plants for the first time came weak. I tried this to prove if the statement was correct, that the seed would not grow after the second year. I may add that new seed was sown each year, expecting every time to see the end of my first packet. Is it generally known that Primula seed will grow when so old?—M. B.

VINE CULTURE.

RENOVATING EXHAUSTED VINES.

VINES are not unfrequently injured by cropping them too heavily for a series of years. This is apparent in the weakly character of their growth and diminutive Grapes. Where the border is considered in a sufficiently good condition not to require renewing, the best treatment for Vines thus broken down is either to forego a year's crop altogether, or to crop them very lightly for a year or two.

Exhaustion of Vines from crowded training and close stopping is sometimes met with in its worst forms. As has already been referred to, the rods of Vines should never be trained closer than 3 feet apart, and the fruit-bearing spurs not closer than 16 to 18 inches. I have seen, in conjunction with close training, the fruit-bearing wood pinched at the bunch, or just one joint beyond it. This, with anything like heavy cropping, is certain in a very few years to cripple the Vines. They are in fact smothered, and worked hard into the bargain. To put fresh vigour into such Vines, cut the superfluous rods out, to give those left more room, and let the laterals grow two or three joints beyond the bunch.

The premature destruction of foliage is another fertile source of injury, whether it takes place from red spider or scorching. The evil most commonly arises from the ravages of spider. As the pulmonary arteries of the body convey the blood to the lungs, there to be exposed to the air we breathe, and undergo change, and be diffused through the system for its nourishment, so is the sap in the Vine sent up to the leaves, there to undergo change and be made fit for plant-nourishment. And injury to the lungs does not more certainly lead to debility in the animal than does the premature destruction of the foliage to the Vine or any other plant.

Early forcing, especially when the roots are in a cold ill-drained border, is most injurious to Vines; and when the principal cause of exhaustion is from a cold ill-drained soil, and where they are otherwise in such a condition that good results might be expected from them if in a more congenial border, the best way is to clear away the whole soil, disentangling and saving every root that can be saved, to make the drainage effectual, and make a new border, carefully planting the Vines again. The best time for this operation is in autumn, after the Grapes are cut, while the Vines are still in leaf and able to make fresh roots. Supposing the Vines have roots in both outside and inside borders, the one should be renewed one year and the other the next. When the operation commences, shade the roof with canvas; and after the roots are laid in the fresh soil, give a good watering at 120°, and cover up the border with dry litter to retain the heat. In 1856 I lifted a house of Vines, as thus recommended, the first week in October, only the whole instead of half the roots were lifted; and by the end of July, 1857, cut a fair crop of Grapes from them. And in December of 1858 I lifted a Vine after it had been three years planted, and planted it in anotherinery in which I had previously commenced the forcing of pot Vines, and it ripened ten good bunches in May, 1859. These instances are mentioned to show how well Vines bear being carefully transplanted or lifted.—D. TUOMSON (in the Gardener).

GARDEN LABELS.

My experience is that wooden ones are, after all, the best, cheapest, and most enduring. I have some in use now quite five years old, and showing no sign of decay; perhaps the only drawback to them is the white paint so soon gets dirty, then the name is not so legible. My plan is to paint the label well all over, except the place for the name, with two coats of white paint, and when thoroughly dry and fit for use write

the name with a heavy lead pencil well into the wood. Fix the label to the stake vertically with a nail through the middle. When the stake rots, it is easily removed with a strong pruning knife, together with the nail, ready for the fresh stake. For dwarf plants use slips of slate and white paint to write the name in.—*AMATEUR, Bexley.*

THE CHRYSANTHEMUMS AT CHELTENHAM.

As an old grower of this beautiful autumn flower, I thought I should like to see how it was done in Cheltenham, and having a jolly friend there, I journeyed thither with a few cut blooms, many of which had done duty the week before in Bristol. On Monday morning, November 23rd, I started from the Bristol terminus, first train. Cold it was—a sharp hoar frost, apparently more severe as we journeyed northward. I arrived just in time to stage my blooms and to look around. The growers are far behind the Bristolians. The plants were all of the leggy growth, which told me the Cheltenham growers had not been far a-field. The cut blooms were too true to nature, and would not bear the least dressing, a question I am not at all satisfied with. The Grapes, Apples, and Pears were very creditable.

One of the best exhibits in the Show was Mr. Cypher's Primulas—twelve plants of beautiful growth, and bloomed to perfection—just in to the day. I would recommend the Cheltenham Committee to give better prizes, both for cut blooms and plants, if they wish to see the Chrysanthemum done well. After a long tramp with my jolly friend, we at last turned in to Mr. Cypher's to have a look at his stock. There were argents at rest after a season's campaign, laying up and storing strength for another and perhaps more eventful year. I also noticed a beautiful batch of Orchids and a good house of Geraniums. Truly our friend Cypher is a wonder; that which he does and how he does it are marvellous. Ye men of Bath and Bristol, you will have to look sharp after your laurels.—*T. HOBBS, Bristol.*

ANOTHER correspondent writes:—For six large-flowered Chrysanthemums, distinct varieties, Mr. T. Smith, gardener to Mrs. Lloyd Williams, took the first prize; second prize Mr. Moorman, gardener to Dr. Abercrombie. In the collection of four distinct varieties the prizes were exactly reversed. The Pompons were remarkably good and numerous represented. For six distinct varieties Mr. T. Smith was again placed first, Mr. Weavin second, Mr. Moorman third.

The cut blooms, Primulas, Solanums, vases, and bouquets were exceedingly good. For dinner-table vases, first Mr. J. Cypher, second Mr. C. Smith, third Mr. C. Cooke; and for bouquets the prizes were exactly the same as for the vases. The fruit exhibited were remarkably good, especially the Grapes.

SOME OF THE VEGETABLE PRODUCTS OF CEYLON.—No. 3.

COTTON (Continued).

SIR JOHN BOWRING, who, from his position and love of inquiry must be considered as a most powerful witness, in his very interesting work on "Siam" thus writes:—"Let it not be supposed that I write with any feelings but those of complacency upon the 'exodus' of the Chinese from their native land, and their outpourings on all adjacent regions. I believe there is no class of settlers who, under proper control, are so likely to be useful; that the very quality—the passion for acquiring wealth, which leads them to dare all danger and difficulty, is a most valuable recommendation. Their own habits of subordination; their inborn and inbred respect for authority; their gregarious spirit, which drives them into associations of every sort, private and public, praiseworthy and pernicious, only require a thorough knowledge of their character to be turned to the best account. They already constitute nearly half the population of Siam."

An intelligent correspondent writing from China, and whose letter appeared in the *Times*, stated that on a recent visit to Shanghai he found that fifteen thousand of the better and wealthier classes had located themselves in the European colony there of their own free choice, built wide streets and extensive bazaars, pay road and police rates, and conform to municipal regulations of foreign growth with scrupulous fidelity. The same correspondent adds, "The Chinese are certainly among the most easily governed of any in the world, given two con-

ditions only—honesty of purpose and strength in the governing power. Under such conditions the latter is hardly ever called into active exercise. It is enough that it should be known to exist."

The Government of New South Wales has passed an act for encouraging the growth of Cotton in that colony, offering favourable terms to persons forming themselves into associations for growing and cultivating Cotton, and the Queensland Government has from time to time followed the same procedure.

The Cotton sent to me by the Ceylon Government to be shown at the International Exhibition in London in 1862 was valued by the representative in London of the Cotton Supply Association of Manchester as follows:—No. 1 like good strong New Orleans, worth 12d. to 13d. per pound; No. 2 like low middlings, not good Cotton, but strong, 12d. per pound.

Cotton seed is given occasionally to the cattle to eat. They like it, and it is considered fattening. In China oil is obtained from the seed of the Cotton plant, and the seeds are afterwards employed as manure, together with the branches, leaves, and pods, by being burnt, or by rotting them in pits.

SUGAR.—Very large sums have been expended in attempts to cultivate the Sugar Cane in Ceylon, but success has not been arrived at. The only estates, I believe, now under cultivation are one belonging to Lord Elphinstone and a few small estates in the southern province. There is no doubt that suitable soil exists in portions of the island to grow Sugar Cane, but it is well known that its cultivation is very exhausting to the soil, and requires heavy manuring, and this, combined with the question of labour, renders it far more profitable to grow Coffee.

Sir J. Tennant is of opinion that the mediocrity of the soil and the necessity of frequently changing the plants, coupled with a superabundance of merely watery fluid in the canes and disproportionate yield of saccharine, have hitherto contributed to discourage the extension of the enterprise. The cultivation of Sugar was first introduced into Ceylon by the Dutch.

THE PALMYRA TREE is chiefly cultivated in the Peninsula of Jaffna in the northern province of Ceylon. Mr. Fergusson in an interesting volume entitled "The Palmyra and its Products," estimates that the number of Palmyra trees in this district alone must be about seven millions, the edible product of which supplies one-fourth of the food of two hundred and twenty thousand inhabitants.

The Palmyra tree is upwards of fifteen years old before it commences to yield fruit. The sap yields for a period of four or five months at the rate of about three quarts a-day. This sap, or toddy as it is called, after it has rested and fermented, is converted into jaggery, or coarse but pure sugar, by a little lime being added to the sap, and is sold in the native bazaars at about 1d. a-pound. Three quarts of toddy will yield 1 lb. of jaggery. About 12,000 cwt. are exported annually to continental India, where it is refined. If the fruit be allowed to form instead of being crushed by the operations of the toddy-drawer, it comes to maturity in August, and there are some twelve to eighteen clusters on each flower stem, of which the tree bears about six or seven. The core of the fruit contains three hard seeds embedded in a farinaceous pulp. This pulp is extracted by pressure, and by the action of the sun is made into squares, and used for cakes or curry. The seeds or kernels of the fruit are also extracted and dried in the sun. Under the name of kelingos they are largely consumed in the bazaars of the island. The kelingos are sometimes reduced to a flour. Leaves of the trees supply roofs to native houses and fences to the fields, the old materials being converted into manure for the Rice fields. As Tennant truly states, the Palmyra tree furnishes at once shelter, furniture, food, drink, oil, and fuel for the inhabitants, with forage for their cattle and utensils for their farms. No single production of Nature, not even the Cocoa-nut itself, is capable of conferring so many blessings on mankind in the early stages of civilisation: and hence that outburst of simple gratitude in which it has been exalted by the Tamils* into an object of veneration, and celebrated in songs as a tree transplanted from Paradise.

TOBACCO.—In a late official Blue Book it is stated that upwards of fifteen thousand acres of land are under Tobacco cultivation. It is the great staple of the Jaffna district, where it is most carefully cultivated, and is largely consumed in the island. Jaffna Tobacco used to be exported to Travancore in large quantities, although, I believe, the trade has of late years fallen off. In an interesting report from the pen of a very

* The inhabitants of the northern province of Ceylon are Tamils.

able member of the Ceylon Civil Service, Mr. Sharpe, that gentleman states that in his opinion a fine field for the growth of Tobacco exists on the banks of the Walauri river in the southern province, the soil being extremely rich and fertile, and water always to be had in ample supplies from the river. In the report of the Commission appointed by the Spanish Government on the cultivation of Tobacco in the Spanish colonies, it is stated that Tobacco flourishes in rich, cool, and dry soils, and also in those of a stony or sandy nature, provided there be a foot depth of vegetable mould. Virgin forest land and meadows will produce excellent crops for many years without manures. If the soil has borne other crops previously it must have a six-months fallow, and be well manured. Whenever Ceylon has the advantage of Chinese agriculturists among the natives, aided with English capital, the introduction of superior kinds of Tobacco, such as the Cuban and Manila Tobacco, will no doubt follow.—E. RAWDON POWER, *Ceylon Civil Service (Retired), Tenby, South Wales.*

HELIOTROPIUM PERUVIANUM.

WHAT a valuable decorative plant this makes for winter, and yet how often is it neglected for novelties of inferior merit! It is a good, old-fashioned, all-year-round kind of a plant, not particularly showy, but in point of sweetness it ranks with the Violet or Mignonette, and like them it possesses an odour peculiarly its own—a distinct and grateful perfume being quite as acceptable to many as a showy flower or a plant of graceful habit. This plant is very readily propagated from cuttings put in any time during the spring months. These make sturdy little specimens in two or three months if potted-on in rich sandy compost, and potted once or twice, so as to make them bushy; a few hundred plants so grown in either large 60's or 48-sized pots come in very handy for winter-furnishing, and can be brought forward in either turf-pits or frames. If cut flowers are required, no system is better than to plant out some good-sized specimens, and train them up the pillars in a warm conservatory, greenhouse, or corridor. It is astonishing what growth and flower this plant produces when so treated, especially if in a sunny position; and if a large supply of flowers is required, the cutting necessary to obtain these will serve all the purposes of pruning. Strong established specimens frequently attain a height of from 10 to 20 feet, and flower well throughout the year. There are several newer varieties in cultivation; but for free-flowering qualities and sweetness, either for bedding or indoor work, none is superior or even equal to the old "Cherry-pie;" and I find this is also preferred by most of the growers who supply Covent Garden with thousands of this plant alone throughout the year.—F. W. B. (*in the Gardener*).

ROYAL HORTICULTURAL SOCIETY.

DECEMBER 2ND.

FRUIT COMMITTEE.—Alfred Smea, Esq., F.R.S., in the chair. Mr. Woodbridge, of Stion House Gardens sent fruit of *Musa Champa*, which received a certificate last year. It was excellent in flavour, and again received the Committee's commendation. Mr. Bennett, The Gardens, Hatfield House, sent fruit of Sutton's Improved Stion House Cucumber. Messrs. Veitch & Sons sent Veitch's Self-protecting Broccoli. The Committee admired the stock, but expressed a wish to see it at a spring meeting. A comparison was made between Messrs. Cutbush & Sons' Onion Oscar and Bedfordshire Champion or Intermediate, and after comparison it was decided, for the purpose of determining the respective characters of the varieties, that they be sown at Chiswick next year. Mr. John Robson, Bowden, Cheshire, sent Dunham Red Celery, a good variety, but not superior to Leicester Red. A very choice collection of Celeriac was exhibited from the garden of the Royal Horticultural Society at Chiswick. The e were remarkably well grown, and furnished excellent examples of the different varieties. A cultural commendation was awarded to them.

Mr. Smea's prize of £5 for the best dish of a new fruit submitted to the Committee during the year 1874, was awarded to Mr. Pearson's new Grape, Mrs. Pearson; and his prize of £5 to the best new vegetable exhibited before the Committee in 1874, was awarded to the Seville Long Pod Bean, sent by Messrs. Vilmorin, of Paris.

Mr. Veitch moved that this Committee recommend to the Council that a letter of condolence be written to the family of the late Mr. Daniel Nash, who was a member of the Committee, and expressing their appreciation of the great services he has rendered to the Society, and regret for the melancholy circumstance which deprives them of his presence.

This being the last meeting of the year the Committee as at

present constituted ceased to exist. A vote of thanks was proposed and carried unanimously to Mr. Alfred Smea for the ability and courtesy with which he had filled the office of Chairman during the past year; and a similar one to Dr. Hogg.

FLORAL COMMITTEE.—W. B. Kellock, Esq., in the chair. No certificates were granted to any of the new plants, but a plant of *Dracena Duffii*, from Messrs. E. G. Henderson & Son, was asked to be seen again; the leaves are broad, margined and occasionally broadly striped with red. A Violet of the Neapolitan type was sent by Mr. G. Brush, gardener to Lady Hume Campbell, The Gardens, High Grove, Pinner. It is named Lady Hume Campbell, but is not sufficiently distinct. *Physianthus albens variegatus*, a cool greenhouse climber, the leaves variegated with creamy white, was sent by Mr. Green, Holmesdale Road, Reigate.

The most attractive object at the meeting was a very fine group of *Cyclamens* from Mr. H. B. Smith, of Ealing Dean Nursery, Ealing. The plants were remarkably healthy, the flowers brilliant in colour and unusually large. The same exhibitor sent a dozen pots of a semi-double *Primula*.

Messrs. Standish, of Ascot, sent twelve nice dwarf plants of *Poinsettia pulcherrima*; some of them had heads of floral bracts as much across as the plants were high. A collection of perpetual-flowering Carnations from Messrs. E. G. Henderson & Son was very pretty, but no names were attached to any of the plants. To all the above collections votes of thanks were given by the Committee.

THE NOVEMBER PLUM.

I AM requested, in answer to the inquiry of Mr. Douglas regarding this Plum, to say—as Mr. Earley is precluded from answering it personally—that the name in question was given to the fruit of a solitary plant in his possession, and which he fruited for the first time last season. From all his experience, and the researches he had made, he was led to believe that no other Plum like it existed, nor had he the least knowledge that anything similar existed in the neighbourhood previously. Not deeming it necessary to question Mr. J. Douglas's assertion should the similarity be so great, he only regrets not having known of it sooner, and so have obviated giving rise to any question of precedent. Mr. Earley may refer to this subject again.—WILLIAM GREATRIX EARLEY.

DEATH OF MR. DANIEL NASH.

WITH great regret we announce the death of Mr. Daniel Nash, the head of the old house of Minier, Nash, & Nash, seedsmen in the Strand. The event happened last Saturday, after a brief illness. Mr. Nash had been ailing for some time, and those of his friends who knew him well remarked a change in him at the last Fruit Committee meeting, but this was not of such moment as to cause immediate apprehension. It was only last week that serious symptoms became apparent, and on Saturday he sank, the disease being, we understand, an affection of the heart. Mr. Nash was the father of the London seed trade, and has for nearly half a century occupied a position in which he was held in the highest respect.

THE STINGING TREE.

ONE of the torments to which the traveller is subjected in the North Australian scrubs is the Stinging Tree (*Urtica gigas*), which is very abundant, and ranges in size from a large shrub of 30 feet in height to a small plant measuring only a few inches. Its leaf is large and peculiar, from being covered with a short silvery hair, which when shaken emits a fine pungent dust, most irritating to the skin and nostrils. If touched it causes most acute pain, which is felt for months afterwards—a dull gnawing pain, accompanied by a burning sensation, particularly in the shoulder and under the arm, where small lumps often arise. Even when the sting has quite died away, the unwary bushman is forcibly reminded of his indiscretion each time the affected part is brought into contact with water.

The fruit is of a pink fleshy colour, hanging in clusters, and looks so inviting that a stranger is irresistibly tempted to pluck it, but seldom more than once; for though the Raspberry-like berries are harmless in themselves, some contact with the leaves is almost unavoidable. The blacks are said to eat the fruit, but for this I cannot vouch, though I have tasted one or two at odd times, and found them very pleasant.

The worst of this Nettle is the tendency it exhibits to shoot up wherever a clearing has been effected. In passing through the dry-tracks cut through the scrub, great caution was necessary to avoid the young plants that cropped up even in a few weeks. I have never known a case of its being fatal to human

beings; but I have seen people subjected by it to great suffering, notably a scientific gentleman, who plucked off a branch and carried it some distance as a curiosity, wondering the while what was causing the pain and numbness in his arm. Horses I have seen die in agony from the sting, the wounded parts becoming paralysed; but, strange to say, it does not seem to injure cattle, who dash through scrubs full of it without receiving any damage. This curious anomaly is well known to all bushmen.—(*Cassell's Illustrated Travels for December.*)

NOTES AND GLEANINGS.

THE first annual meeting—the maiden meeting—of THE WESTERN CHRYSANTHEMUM SOCIETY was held recently in the Devonport Town Hall, under very promising auspices, and with the most gratifying results. The Society was formed a few months since by several local gentlemen interested in horticulture, and especially in the growth of Chrysanthemums. Mr. G. H. E. Rundle was elected the President, and the fact of his consenting to take the office at once gave the movement a good start; for in connection with the Western Horticultural Society, as well as in other ways, Mr. Rundle has done as much as any single gentleman in this locality to advance the study of horticulture among the public generally, and to bring the refining and elevating influences of flowers to bear upon the masses. The Show was good. In the number of exhibitors, the number and quality of the plants, and general support accorded it, the most sanguine anticipations of the managers and promoters were realised. The Hall itself, which is one of the handsomest and most expensively decorated in the West of England, is admirably adapted for such a Show, and certainly its advantages were fully utilised in the arrangements of the stalls. The display of the Chrysanthemums was brilliant. Among those who exhibited collections of plants as well as Chrysanthemums, in order to give the Society a helping hand, were the Rev. T. Bewes; Mr. Challice, Plympton; C. Fox, Esq., Mr. Anderson, Mr. Eastley, and Mr. Cuerel, Stoke, &c.

LIVERPOOL CHRYSANTHEMUM SHOW.

THE twelfth annual Show of this Society was held Nov. 17th and 18th in the large room of St. George's Hall, than which there could not be a better place for a floral exhibition at this time of the year, particularly as it is brilliantly lighted. From the side galleries the view is splendid by gaslight; and the music from the band floating on the ear, combined with the bright hues of the flowers and the delicate tracery of the Ferns, the decorations of the Hall with its noble columns, and the moving crowd, all make up a scene worth going many miles to see. It is a pity that such a meeting should be in any way hampered for want of funds in a populous town like Liverpool, yet such is the case unless this Show has made up the loss on its predecessors, for I was told that the Committee were some £30 out of pocket. This I hope is not the case now.

Gardeners muster in strong numbers after six o'clock in the evening, when it becomes a matter of great difficulty to get to the stands of cut blooms. This year there was better competition than last, and the blooms were shown in splendid condition. I think that last year they were larger than this, but those exhibited in the present one were more equal, and showed less of the dresser's art. Last year the Show was held late, and the majority of the blooms would not have kept longer. This year I noticed several blooms that would have been better in another week; these were, however, few.

When a Chrysanthemum will cover a circle of 6 inches in diameter, and is beautifully incurved and full in the centre, we are, I think, nearly approaching perfection. In size Empress of India leads the way, closely followed by Queen of England (this I considered the finest flower in the Show considering all the stands); Hercules, Bronze Jardin des Plantes, Jardin des Plantes, Lady Harding, Nil Desperandum, John Salter, Alfred Salter, Isabella Bott, Prince Alfred, Empress of India, Guernsey Nugget. Bronze Jardin des Plantes was not so fine as last year, but the others were, I think, better.

For a stand of eighteen Mr. Norrie was first with Hercules, Alfred Salter, Nil Desperandum, Queen of England, Lord Harding, General Slade, Jardin des Plantes, John Salter, White Globe, Empress of India, Novelty, Empress Eugénie, Guernsey Nugget, Prince and Princess of Wales, Isabella Bott, White Venus, Lord Derby. Mr. G. Rhodes was second, and Mr. W. Kepps third. For twelve Mr. Rhodes was first with a splendid Empress of India, Golden Beverley, Lady Harding, John Salter, Prince Alfred, Lady Slade, Prince and Princess of Wales, Isabella Bott, Jardin des Plantes, Bronze Jardin des Plantes, Queen of England. Mr. Moreton second, and Mr. Kepps third. For

six Mr. Peers was first with Alfred Salter, Empress of India, Lady Harding, John Salter, Prince of Wales, Jardin des Plantes. Mr. Ryley second, and Mr. Johns third.

For six specimen plants, large flowering, natural habit, Mr. Morris was first, Mr. Peers second, Mr. Ingwood third. With the exception of the first prize lot the exhibits in this class were poor. For six specimen plants trained, large-flowering, Mr. Brown was first with splendid examples of Lady Talfourd, Queen of England, Mrs. G. Rundle, John Salter, Lord Derby, and Guernsey Nugget. Mr. Wilson was second with good plants, but with too little variety of colour; Mr. Ingwood third. For three specimen plants trained, large-flowering, Mr. Phythian was first with Mrs. G. Rundle, Guernsey Nugget, and Pink Perfection. Mr. Wilson second, and Mr. Ingwood third. For one large-flowering specimen Mr. Whitfield was first with Guernsey Nugget, Mr. Wilson second with Mrs. G. Rundle, and Mr. Brown third with Fingal. For one standard Mr. Phythian was first with a well-flowered specimen of Mrs. G. Rundle; the first, second, and third prizes going to Mrs. G. Rundle, which was well represented in all the different classes, and taking a place at the head of the lists for decorative purposes. Mr. Brown was second, and Mr. Ingwood third.

For six Pompons Mr. Phythian was again first with Amy, Aigle d'Or, Anrora Borealis; yellow, lilac, and white Cedo Nulli. Mr. Whitfield was second, and Mr. Wilson third. For three, Mr. Blackmore was first with the three kinds of Cedo Nulli, splendid plants and grandly flowered; Mr. Phythian second, Mr. Wilson third.

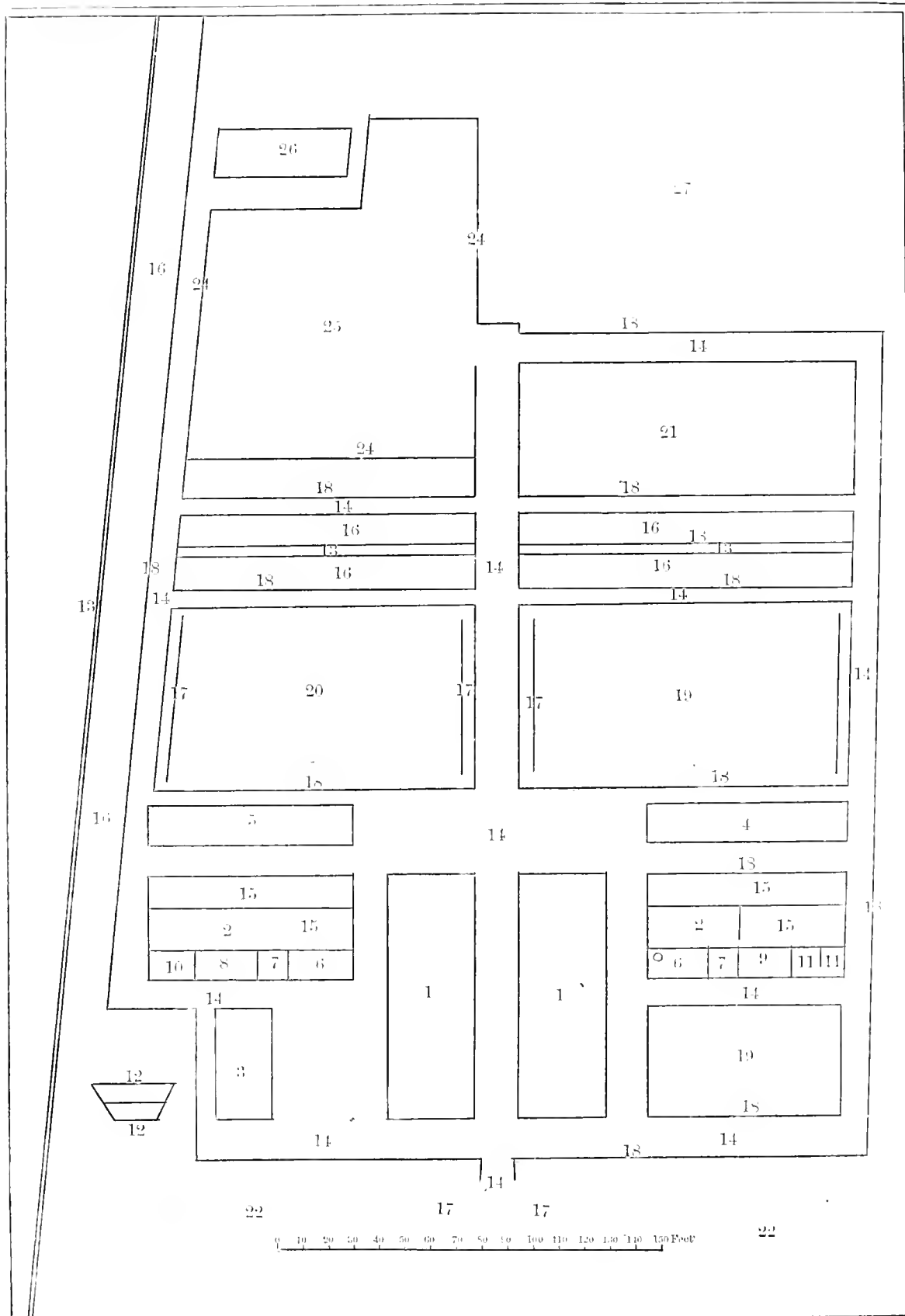
It will be seen from the foregoing that there were no trade growers competing, and the Exhibition proved that a high degree of excellence has been attained by the amateur cultivators of the Chrysanthemum around Liverpool.

Fruit was another special feature, and the competition being open to gardeners in any part of the country, splendidly-coloured Apples and Pears were shown from districts where less soot and smoke are flying about than in Lancashire. Grapes were fairly represented, as were also Pines. Mr. Jamieson, gardener to the Earl of Crawford and Balcarres, was first for three Pines with nice examples of Smooth-leaved Cayenne. Mr. James was first for Black Hamburg Grapes, net large, but beautifully coloured, and having a splendid bloom; and Mr. J. Bruce was first for Muscata. In the collections of fruit there was, I thought, too much sameness; such as two dishes of Apples, two of Pears, two of Grapes in one collection; the time of year, however, should be considered. For twelve dishes Mr. Hanagan was first, Mr. Jamieson second, Mr. Potts third. For six Mr. Hanagan was again first, Mr. Curle second, and Mr. Jamieson third.

Of Palms, Ferns, ornamental-foliaged and flowering plants there were enough to back-up the Chrysanthemums. A fine *Adiantum farleyense* was exhibited by Mr. Cromwell, gardener to T. Moss, Esq.; it was 5 feet through, but not being well supported by the rest of the six, the group consequently only stood second, Mr. Forester being first with *Cibotium regale*, *C. glaucescens*, *Goniophlebium subauriculatum*, *Microlepia* species, *Adiantum pentadactylon*, and *Lomaria gibba*. Tree Ferns, first a fine plant of *Todea arborescens* from Mr. Tyndal Bright, of Aigburth; Mr. Gore was second with *Alsophila excelsa*, and Mr. J. Anderson third. For fine-foliaged and flowering plants (10) Mr. Blomley was first, Mr. Wilson second, and Mr. Wright third. *Primulas*, *Epiphyllums*, *Mignonette*, and *Poinsettias* were not so good, not being at their best. The first-prize *Epiphyllum*, single, was by far the best of the lot.—W.

GARDENING IN SWEDEN.

OVERVAS, Sweden, the seat of James J. Dickson, Esq., is situated about half an hour's walk south from the town of Gothenburg, and is sheltered from the north by a rocky hill of considerable height. Here extensive gardens have been laid out within the last eight years under the direction and management of Mr. James Loney, son of that well-known veteran horticulturist Mr. Loney, gardener to Sir Patrick Murray Thriepland, Bart., at Fingask Castle, Perthshire. A public road divides the fruit and kitchen-garden department from the plant houses, flower garden, and pleasure grounds. In the former are two splendid orchard houses, each 100 feet long, 35 feet wide, and 18 feet high, 6 feet high at the sides. A stone path extends up the middle of the houses, and there are two cisterns on each side of the pathways for collecting rain water from the roofs. Here it may be remarked, all rain water that falls on the various roofs is collected inside in slate cisterns, from whence the overflow was conveyed to a large well, from which it was pumped for use. Since that arrangement was made, however, a supply of water has been taken from a lake to the town and passes here, giving a never-failing supply for the mansion as well as for the hot-beds and gardens, likewise for a fountain in the centre of the flower garden.



One of the orchard houses is for tender fruits, and in it two rows of standard Peaches, Nectarines, &c., planted in a made border, one on each side of the pathway, have a very fine effect on entering. The remaining space is filled up with pyramids and bushes in pots of 10 and 12 inches in diameter. Fifty miniature trees in 6-inch pots are placed at intervals round the sides and ends: all the trees look well for a good crop next season. The second orchard house is planted in the same way, but is used for Pears principally, and these show masses of fruit buds for next year. Some of the Pears in this house grown in 10 to 12-inch pots weighed as much as 1½ lb. last autumn, and Apples over 1 lb.

Late and early vineries are to the right and left of the orchard houses. Black Hamburg, Muscat of Alexandria, and Escholata Superba are principally grown for early forcing: the last-named Grape is a great favourite here. Late varieties are Lady Downe's, Alicante, Mrs. Pince, and Gros Colman. The last has not been much tried yet. The Alicante is another favourite here. The vineries are built after the newest style, which gives a long rafter or roof for training the Vine, and they have borne heavy crops for a succession of years. Two

houses are used for Pine Apples. A fruiting span-roofed one is well stocked with strong plants of Queens, Black Jamaicas, Smooth Cayenne, and a few only of Charlotte Rothschild. The other is a half-span pit for succession plants, in which are also grown, placed on the pipes, pot Vines, which are forced quickly and satisfactorily. A Strawberry pit of the same size and form as the last is principally stocked with Keen's Seedling.

On walls for Pears, Apples, Plums, and Cherries, these trees look well, and are just getting into a good bearing state. Pyramids are mostly planted as orchard trees, standards not being so much used in consequence of their being more exposed to the south-west winds, which do great mischief here, especially in autumn.

In the plant department, in connection with the mansion, is a stove on the one side and a conservatory on the other side of the main entrance, which produce a good effect, being kept as gay as possible with flowering plants from the other houses, which are a little beyond the building, and consist of a large house for specimen Camellias, Acacias, and hardwooded plants in general, which make a good show during the winter and spring months. Next come three lean-to houses all of the same size,

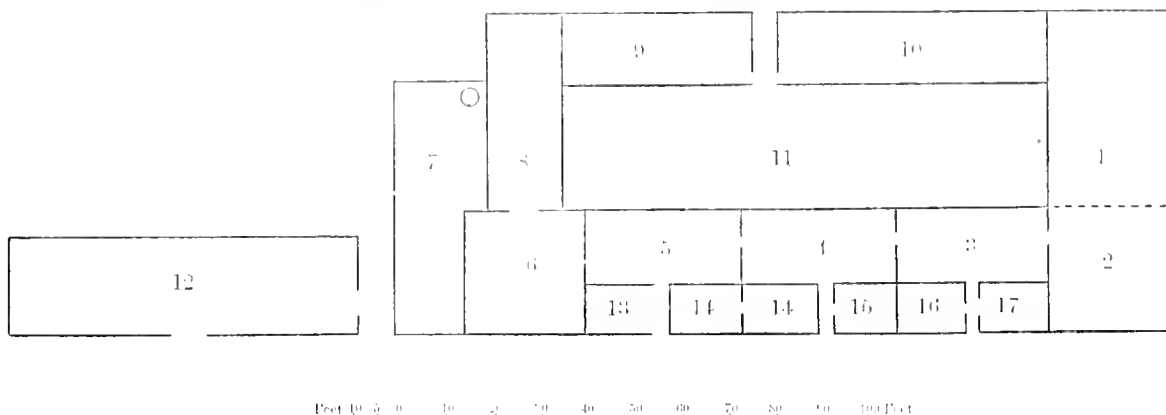


Fig. 141.

- 1 and 2, Conservatories span-roofed. No. 1, 20 feet high in the middle, and 15 feet at the sides; No. 2, 24 feet high, and 18 feet at the sides.
- 3, Lean-to for greenhouse plants.
- 4, Lean-to for Rose house.
- 5, Lean-to for softwooded greenhouse plants.
- 6, Span-roofed Palm house, same size as No. 2.
- 7, Boiler and coke cellar.
- 8, Plant stove.

- 9, Propagating pit, and for forcing plants in flower.
- 10, Pit for bedding plants.
- 11, Open space for plants in summer to be shaded with canvas.
- 12, Half-space for hardwooded greenhouse plants.
- 13, Potting-room and stair to cellar under Palm house.
- 14, Men's rooms.
- 15 and 16, Store rooms and tools.
- 17, Office.

the first for the smaller Camellias, Azaleas, Genistas, &c. The second is for Roses planted in borders as standards and climbers up the rafters. Third is a general house for softwooded plants, Cinerarias, Calceolarias, &c. The next is a Palm house, in which are fine specimens of *Seaforthia elegans*, *Caryota urens*, &c., the former having flowered this autumn. There are also some good specimens of Tree Ferns in this house. A plant stove is the next, in which are all the ordinary plants grown in such structures. After going from this house we come to another half-span, 18 feet high to the apex and 8 feet in front, in which are wintered a number of standard Bays in tubs, and which are placed about the grounds in summer, these and other broad-leaved evergreens being too tender for withstanding the rigours of Swedish winters. There is also a good collection of Heaths and other hardwooded plants in this house. Two pits are used for propagating, and for forcing plants into flower during the winter and the spring months; and another is for keeping bedding plants for summer decoration, of which the annually required supply is fully 25,000. The flower garden is in front of the dining-room windows, and in its centre is the fine fountain before mentioned.

The pleasure grounds have been very much extended of late, and are kept in first-class order. Broad-leaved evergreens are a great want here in winter. Conifers are, however, extensively grown and partly take their place. *Picea Nordmanniana* is quite at home; *P. amabilis*, *Abies orientalis*, *A. inverta*, *A. pyramidalis*, and many more make rapid growths. *Picea Pinsapo*, although not such a fast grower, thrives well. Many species and varieties of *Cupressus* and *Thuja*s are quite hardy. *Rhododendrons* require to be covered during the most severe cold, more especially in February and March, when the sun

begins to get strong with severe frost at night; branches of the common Spruce being used for everything that requires such protection. The shrubberies are chiefly composed of deciduous bushes, which thrive well, and, although bare-like in winter, they at other seasons become well clothed with flowers and foliage.

The accompanying are the ground plans of the Fruit department and the Plant department. The extent of the former is, however, more extensive than shown in the engraving, in consequence of the slip between the garden and boundary being omitted.

Fig. 140.

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| 1, Orchard houses, 15 feet high. | 14, Macadamised garden walks. |
| 2, Late and early vineries. | 15, Vinery borders. |
| 3, Pine fruiting house. | 16, Fruit-tree borders. |
| 4, Succession Pine house. | 17, Wire espalier for fruit trees. |
| 5, Strawberry forcing. | 18, Stone-hewn edging for walks. |
| 6, Boiler and coke. | 19, Miniature fruit trees. |
| 7, Potting shed. | 20, Open ground for Strawberries, &c. |
| 8, Mushroom house. | 21, Small fruits, Gooseberries, &c. |
| 9, Fruit room. | 22, Orchard pyramid and standard trees. |
| 10, Tool shed. | 23, Thorn hedge. |
| 11, Men's rooms. | 24, Manure and compost yard. |
| 12, Beard's Patent Glass Walls, for fruit. | 25, Store shed. |
| 13, Walls for trained fruit trees. | 26, Kitchen-garden ground. |

ADIANTUM FARLEYENSE.

No doubt some of your readers when visiting the Liverpool Chrysanthemum Show were struck with the magnificent specimen of *Adiantum farleyense* exhibited by Mr. Cromwell, gardener to Thomas Moss, Esq. I for one was astounded. It measured fully 6 feet through, and was one dense mass of fine

fronds, all in perfect health and beauty. *Adiantum farleyense* is the queen of Ferns without doubt, and the specimen referred to excited the admiration of all who saw it. It was evident it had been at home in the hands of Mr. Cromwell, as he must have thoroughly understood the nature of all its wants. I am sure some of your readers would be glad, like myself, of a few remarks on Mr. Cromwell's successful method of management.—W. F. R.

LARGE CEDAR OF LEBANON.

In reply to an inquiry in your Journal of November 26th, signed by Mr. G. Abbey, I recollect some twelve or fourteen years ago, when on a visit to some relations in London, to have been present at a large garden party at the residence of a Mr. Cave, who was at that time the Sheriff for the County of Middlesex. I do not recollect the name of the place, but it was within a drive of ten or twelve miles from London. I was particularly struck by the extraordinary size of a very well-grown Cedar of Lebanon, which stood in the grounds near the mansion. I paced it from the branches' extremity to the trunk, which I judged to be about 17 or 18 yards. It would, therefore, have a diameter of, say, about 35 yards, and would consequently have a circumference of more than 100 yards. I was informed that the tree had been planted there by Linnæus, which would give its age at more than 150 years, as I suppose. This may or may not be an older tree than the Cedar to which your correspondent refers; at any rate, it is the most magnificent tree of its kind that I have ever seen.—R. HAYWARD, *The Elms, West Chinnock.*

APRICOTS UNDER GLASS.

It is somewhat surprising that we do not more frequently find Apricots so protected. The only instances I have ever met with were a few pot trees in the orchard house of the amateur gardener; and judging from the experiment, there did not appear any encouragement for extension. Some few years ago we covered 100 feet of our Apricot wall with glass, and the predictions showered in from every quarter that we would find our attempt to be a failure, simply because of mere anticipation—a huge piece of nonsense. But we have succeeded year by year, having produced double the quantity in one season than during any preceding ten seasons, and fruit, too, of a much superior quality. The varieties we cultivate are not numerous, and comprise the following kinds under glass—the Moorpark, Hemskerk, Kaisha, Large Red, or what is sometimes called Gros Rouge, and the Royal. The latter does not set its fruit so freely as the former. Although somewhat shy in this respect, both in quality and size it nearly equals the Moorpark, and is of a hardier constitution. The very superior quality of the Apricot renders it at all times a welcome addition to the dessert; and more, it can be made into an excellent conserve whenever the excess is greater than the demand, while the same cannot be said of the Peach, which is more indebted to the sugar than to any inherent good quality it may possess.

The Apricot is certainly more difficult to manage than the Peach, as it is very impatient of too much heat at all times, and particularly when in flower; and in cases when ventilation is scarcely sufficient to keep down the temperature during bright sunshine, I find it very advantageous to cover the roof for a few hours with scrim cloth, or with common netting.

When the fructifying organs are subjected to an excess of heat their constitution is weakened, and they are unable to exercise their functions at the proper time, and in consequence the crop is a failure.

Before and after the flowers are opened I endeavour to keep the heat below 60°, with an abundance of air, but avoid cold draughts so far as it can be done. I have never attempted artificial impregnation, as being unnecessary under proper treatment.

Like all other kinds of drupaceous fruit, the Apricot is longer-lived in a hard limestone soil, and where this ingredient is not natural it ought to be supplied in large quantities. Lime in this instance has a very important office to perform in the formation of the stone, just as it does in the formation of bone, and as it is secreted by many invertebrated animals to form their shells. There can be no doubt, I think, that the dropping of drupaceous fruit during the stoning period is due in a great measure to a deficiency of this mineral. These minor causes may and do exercise an influence at this time,

yet they are only a secondary power.—ALEXANDER CRAMB, *Tortworth Court (in the Gardener).*

NOTES ON VILLA AND SUBURBAN GARDENING.

THERE is not a month but what brings with it some work of importance to be done in the garden, some more and some less, according to the season; but there is a maxim which should always be observed as far as possible, and that is to do everything in its proper season, because the system not only regulates the operations of gardening, and starts them well in due time, but emergencies often arise which call for immediate attention, and this system allows time to do it. December does not come in without its calls upon all those who have a garden; for, beyond the operations of protecting everything from the evil effects of severe frost, and of digging and trenching the ground, there is work which should be done before the ground is turned-up, and that is the pruning, dressing, and nailing of all trees; and after the leaf is off and this work done the vacant ground may be turned-up for the winter, and all will then look clean and tidy. In pruning allow me to say that it is best to select the hardier sorts of fruits to be done first, I mean such as Apples and Pears, as well as Raspberries, Gooseberries, and Currants. In many suburban gardens the pruning is performed very badly in more ways than one: for instance, when the wood is cut back the spurs are left much too long, and the cut is not clean, but is long and pointed, showing that it is performed by an unskilful hand. Now the same may be said of both Apple and Pear trees; that in healthy vigorous-growing trees the young wood ought to be shortened back to within a quarter of an inch of where it broke into growth, and there are generally three or more dormant eyes situated quite at the base of the shoot, which are ready to break into growth at the required time, and maintain the vigour of the tree; therefore the cut should be clean and the spur short, which answers all purposes and looks workmanlike. Again, another great fault is that when it is desired to extend the size of a tree, such as an espalier or wall tree, the young wood is often left in all at one length, regardless of its size and strength. This is not the way to have a tree well balanced in growth and bearing wood, but as a rule the weaker growth should be shortened fully two-thirds more than the strong wood; this affords the chance of the weak wood breaking into stronger growth than it did the year before, just because there are a less number of eyes to be called into action, and the strong growth will most likely break weaker because there are more eyes to support, so it will be seen that the system if practised year after year will do much towards regulating the growth of the tree and the flow of the sap. With regard to Raspberries the pruning is a small matter and very simple, for if the bearing wood of the past summer has been cut out, which it always should be after the fruit is gathered, in order to allow more freedom of growth and to add strength to the young wood for next year's use, then all there is to do now is to shorten the shoots according to their strength and ripeness, and take care not to leave too many shoots to a stock.

Gooseberries are pruned under two methods. Either the tree is allowed to carry so many shoots, which are spurred all the way up, and the extreme shoots shortened considerably; or the tree is trained so as to produce a quantity of young wood, which in the pruning time is thinned out considerably on the spur system, and the remainder left all its length in a regular manner all over the tree. I incline to, and in fact always practise, the latter plan, believing that if I do not get a greater quantity of fruit, it is at all events much finer.

There is one objection which some urge in connection with the Lancashire sorts of Gooseberries, many of which are very large—that by growing them on the young wood there is a great difficulty in rearing a tree to any ordinary size, owing to the fruit gradually breaking down towards the ground the young wood, which has to be cut off year after year. There is some truth in this, though it may be got over by staking up the trees with habits so inclined.

The Red Currant is a better-forced tree, and must be pruned on the spur system, leaving the shoots here and there where wanted at a third or half their length; but the Black Currant never does better in small gardens than when the old wood is thinned out to the very bottom, leaving new strong growth to take its place. The fruit is generally plentiful, fine, and good. As for Peach and Nectarine trees, I consider it to be the better plan to leave the pruning of them till about February, they being tender fruits; the wood is also many times late in ripening, and the severe weather of winter takes great effect upon it, but in the spring damaged parts can easily be discovered and cut out. In pruning, the wood should be thinned out considerably; cut close to the old stem, leaving no spurs as in other trees, which only die if left. The shoots that are left should be shortened the same as for other trees, but always to a wood bud if possible, because any fruit that is produced beyond the young shoot seldom comes to maturity. Some of these sorts of trees have a remarkable absence of wood buds upon them. When such is

the case the tree is going wrong, and shows a want of vigour which calls for immediate attention; and in the succeeding season such a tree ought not to be allowed to carry much fruit, with a view to encourage all the wood-growth possible; and perhaps it will be necessary to take the old soil from its roots and replace it with fresh soil of a loamy nature, but quite fresh.

Now is the best time of all the year to examine every fruit tree and see if any scale or other disease, such as American blight, is infesting them; if so, the wood should be scrubbed over with a stiff brush, and every crevice examined and cleared of the pest; then dress the tree over from bottom to top with a composition of 8 ozs. of powdered sulphur, 4 ozs. of Gishurst compound, two or three handfuls of soot, and then add enough tobacco water to make up a gallon of liquid; mix all well together, and add sufficient pure clay well worked up in it with the hand till it becomes as thick as paint, and apply it to the tree with an ordinary paint-brush, leaving not a particle of the wood untouched. I do not advise those trees to be dressed that are not infested, but the trees that are so must be done over more than once or twice, and it would be more effectual if the dressing were repeated from time to time for twelve months.—THOMAS RECORD.

LANGTON HALL,

THE SEAT OF BENNET ROTHES LANGTON, ESQ.

BEFORE narrating a recent visit to the gardens of the High Sheriff of the county of Lincoln, it can hardly fail to be interesting to dwell briefly on an outline of the history of the ancient family of Langton and their time-honoured home. The present Hall (to read history backwards), is a newly-erected mansion; it is a large handsome building of red brick with rustic stone quoins, in the Elizabethan style, built in 1866-7 by its present owner at a cost of from eight to ten thousand pounds. It is situated on an acclivity a little north-east of the village, and about half a mile due east of the site of the old moated Hall. It is sheltered on the north and east by finely timbered woods, and commands an extended view of the surrounding country, and of that particular part of which the author of "Young on Agriculture" said was by far the finest view in the county. On the extreme west of the park, on the lower land, may be traced the extensive enclosure of the old moated Hall burnt down in the reign of Henry VI. whilst occupied by Sir Thomas de Langton, but rebuilt on a site in the centre of the present village in the reign of Elizabeth, boundary lines being still discernible of it in several of the cottage homes, and the noble old Sycamore trees which graced its carriage entrance.

The family of De Langton, which was the original name, is one of the few untitled families who can date their ancestral pedigree from the time of William of Normandy in 1066, and can boast of many distinguished members since the time when the village name of Long-ton became the family surname of Langton. Foremost amongst them, in the reign of King John, was Cardinal Stephen de Langton, who was consecrated in 1206 Archbishop of Canterbury, and died in 1228; and Simon de Langton, brother of Stephen, was elected Archbishop of York in 1216, but was set aside by the Pope. Some members, too, of the family have received the distinguished honour of knighthood for their services, military and civil, rendered to their country, Thomas de Langton being knighted by Henry VI., and John de Langton by Charles II. Dr. William Langton, President of Magdalen College, Oxford, who died in 1626, was born here, and who gave the loving cup, "the Langton" of the college at this day; and Bennet Langton the great friend of Dr. Johnson and many others, whose fame as men of letters is handed down to posterity in their autographs attached to the noted "round robin." It should be added that the above-mentioned Stephen de Langton was the wise and good prelate who took a prominent part in the memorable field of Runnymede on the 19th of June, 1215. He it was who was instrumental in aiding the barons to draw up the famous document Magna Charta, and was attesting witness to the signature wrung from King John dealing the death blow to his own despotism, and securing liberty and constitutional freedom to the empire for all time to come.

We now take a bound of over six hundred years, and leave the ancestor at Runnymede in 1215 to take a glance at the home-surroundings of his descendant at Langton, near Spilsby, Lincolnshire, in 1874. The gardens of Langton are not nearly so great as the history of its family, but if not great they are good—good alike in style of formation and management. The site is excellent, and Young was not far wrong when he designated it as affording "the finest view in the county."

The mansion (*fig. 142*), is built on the south-western slope of a circular range of hills, and in the front is, as it were, a basin of some five or six miles in diameter of some of the finest land ever devoted to agriculture. It is, moreover, mostly pasture and grazing land, and interspersed as it is with trees under which the herds and flocks shelter, and skirted by an amphitheatre of hills from which the spires of half a dozen parish churches point their fingered index to the skies, we have a pastoral scene not easy to surpass. Through a break in this range of uplands are visible on a clear day the surging waves of the German ocean, distant about fourteen miles.

The grounds, like the Hall, are new—that is, they were, with the fish ponds, designed and completed under the supervision of the eminent nurserymen and landscape gardeners, Messrs. Veitch of Chelsea, who have done their work thoroughly well and in excellent taste. To better secure the privacy of the mansion, which was inconveniently near the public highway, the plan adopted was to make the lodge entrance a considerable distance away, and parallel with the road to throw up an extensive embankment. This at once effected the object, and afforded at the same time a fine site for shrubs, and secured a broad lengthy easy sweep of carriage-drive, which is one of the main ornaments of the place. This bank being composed of good soil, the shrubs have prospered surprisingly. Owing to the openness and airiness of the situation their habit is close and the colour a dense green, indicative of hardy robust health. The best kinds of Conifers were planted at intervals, interspersed with Hollies in variety, and a due proportion of flowering deciduous trees to brighten and lighten the more sombre masses, the background and intervening spaces being occupied principally by Laurels.

And now a groan, or a grumble, or a sigh of pity cannot be suppressed. I never go with a preconceived idea of lavishing indiscriminate praise on every part of a place, and never will. Mere description without a germ of instruction is not fair to the public, and flattery is not honest on the part of the narrator nor just to the proprietor of a place under notice, because it may do injury by misleading. It is pardonable of a gentleman (and how many of such there are!) who has purchased and planted shrubs, and watched with pleasure their onward progress, to dread in any way their mutilation; they would cherish and conserve every twig and leaf. It is a worthy feeling, but an immense mistake. The shrubs at Langton must suffer—no, it is not mutilation—but necessary amputation to prevent a certain deformity. The Laurels must be headed-down to permit the plants of pyramidal habit to show their distinctive features and proportions above them. To leave these coarser evergreens to unchecked growth is to produce in no long time a forest of leggy ugliness, to be levelled to the ground by some severe frost, dealing death also to better things made tender by their embraces. This common bush must be removed from that choice Cypress, which is eating away its beauty; that grossa Weigela must be routed from that charming Cryptomeria, which is being robbed of its grace and life; and so on to the end of the chapter. Mr. Rogers, the able gardener, is fully—painfully, alive to all this, and it is hoped that his kind employer will give him authority and latitude to save his choice shrubs in all their attractive features before it is too late. The Cryptomerias at this place are in beautiful health. What a fine feature it would be in this drive, with the rising bank on either hand, if the broad grass verge were taken up and round a number of these and other specimens at distant intervals, clearing away all encroachments, the only relief being the smooth velvety turf to show their elegant forms to perfection. An idea something like this carefully carried out would make something like a drive, and one which in a year or two Mr. Veitch, the planter, would glory in. There is so much ruin amongst shrubs by want of timely thinning, that a straight-home word of warning is, if not always acceptable, certainly not unseasonable. Other groups of shrubs are tastefully disposed on different parts of the lawn, and the only natural and unpreventable obstacle to their future form and well-being is the unbroken sweep of the southern and western winds to which they are exposed.

A stroll round the pleasant walks brings us suddenly on the flower garden (*fig. 143*). This is the principal feature of Langton. It is not large, but gave evidence of skill, pains, labour, and taste in bringing it to the state of perfection as seen under the burning sun of a tropical summer. Nothing but thorough culture and unremitting work could have filled the beds, even Verbenas, on that sultry aspect in the state of perfection they presented in August. I am bound in justice to say that

nothing more effective has for a long time come under my notice than this little square at Langton, shown in *fig. 143*.

Polychromatic design, (*fig. 143*), *a*, red ballast, *b*, broken slate, *c*, white sand; centre, small Golden Yew surrounded by *Alternanthera amabilis*. Body of star, *Lobelia pumila grandiflora*, outlined with *Koniga maritima*. Angles, *Alternanthera paronychioides* dotted with *Echeveria metallica*. Outer circles Golden Feather Pyrethrum. Beds 1, 1, dark *Heliotropa*, edge Golden Feather Pyrethrum. 2, 2, Lady Cullum, edge *Alternanthera*. 3, 3, Sir R. Napier Tricolor Geranium, edge *Alternanthera*. 4, 4, Crimson King Verbena, edge Golden Feather Pyrethrum. 5, 5, Silver Tricolor Geranium, edge *Lobelia pumila grandiflora*. Each bed in this design has a dwarf prominent Box edging. The panel on the whole is high-coloured, and is exceedingly rich.

In the general plan the centre bed is planted thus—the broad cross Madame Vaucher Geranium; angles, Mrs. Pollock, surrounded with *Iresine Lindeni*, the whole encircled by Golden Thyme, having an outside margin of *Echeveria secunda glauca*. Beds 1, 1, a centre plant of *Centaurea*; oval cross, Geranium Christine; angles, Blue Lobelia; margin, *Semprevivum californicum*. 2, 2, Diamond, Geranium Souvenir de Sir J. Paxton (very good pink), surrounding a mass of Verbena Purple King; edge, *Dactylis glomerata variegata*. 3, 3, Diamond, Geranium Crystal Palace Gem; angles, *Iresine Lindeni*; edge, *Lobelia pumila grandiflora*. 4, 4, centre, *Calceolaria Sparkler*, surrounded by *Calceolaria Aurea floribunda*; edge, Verbena Purple King. 5, 5, same as preceding. 6, 6, Geranium Lady C. Grosvenor; edge, Verbena Snowflake. 7, 7, Geranium Excellent; edge, Verbena Snowflake. 8, 8, Bicolor Geranium

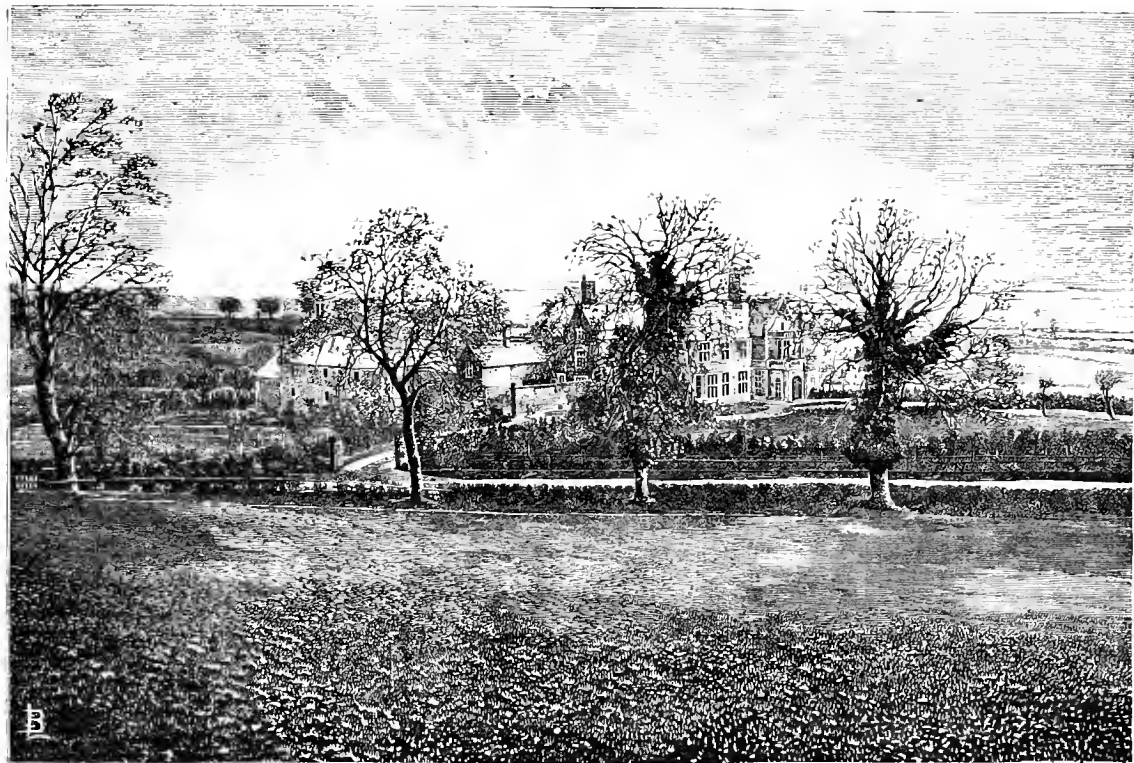


Fig. 142.—LANGTON HALL.

Beauty of Oulton; edge, *Koniga* and *Lobelia* alternately. 3, 9, Geranium Beaton's Silver Nosegay; edge, Golden Thyme and *Lobelia* alternately. Every bed in the plan is well filled, the whole being striking and effective. The chain pattern which slopes from the main design to the walk, and is to be continued to the terrace, is planted, the circles with Geraniums in variety; the scrolls with Verbenas, purple, crimson, and white alternately.

The planting of the terrace border is, in the straight part, as follows, commencing in the centre:—The ovals, *Gnaphalium lanatum*, pinched, surrounded by *Alternanthera amabilis* (inside chain); the main chain, Golden Feather, surrounded by *Alternanthera*, in which the triangles of *Cerastium* are set. In front of this is a straight line of *Mesembryanthemum cordifolium variegatum*, margined with *Echeveria secunda glauca*. This border was perfectly filled, the outlines of varieties sharply defined, and the general effect extremely pleasing. In the circular part the diamonds were of Mrs. Pollock Geranium; ovals, *Gnaphalium*; chain, *Iresine Lindeni*; groundwork, *Lobelia pumila grandiflora*; and margin, *Mesembryanthemum cordifolium*. This gave a rich effect, yet to be looked at a long while without tiring the eye by a glare of high colours.

The charm of this attractive garden lay, perhaps, in the telling effect of the blue Lobelia. It is impossible to imagine a more smooth, dense, floriferous mass of rich blue than the variety used presented. In connection with this flower garden,

which has been so much admired by visitors, it must be added that Mr. Rogers had never seen any panel-planting, and acknowledges his indebtedness for many valuable hints leading to his success to the columns of this Journal. Its back numbers are his garden library; and turn, as he says, for what he will, he is sure to find it. He has read to a good purpose, and on his reading has brought to bear a good practical knowledge of the duties of a gardener. He has, though young, won by his ability the confidence of his employer, and speaks of him as a man should always speak of a good master, in terms of dutiful respect, and as one for whom he feels he cannot do enough.

The kitchen department is as well managed as the floral, and the fruit trees in a good bearing state. Glass is not extensive. A nice conservatory is the boundary to one side of the flower garden, filled with plants looking well; but the stove part of it is too light and airy to grow Ferns and fine-foliaged plants well, especially on the open stages, which are ill adapted to the nature of such things in a structure of the kind. A vinery in bearing carries an immense crop of Black Hamburgs. Good drainage, good support, and rich top-dressings could alone perfect such a crop as was hanging on the Vines. Another vinery is newly planted with late kinds, making very promising canes. The soil is evidently suited to Vine culture. It contains little or no lime, and has a subsoil of sand—in my humble opinion first-rate conditions for producing first-rate Grapes.

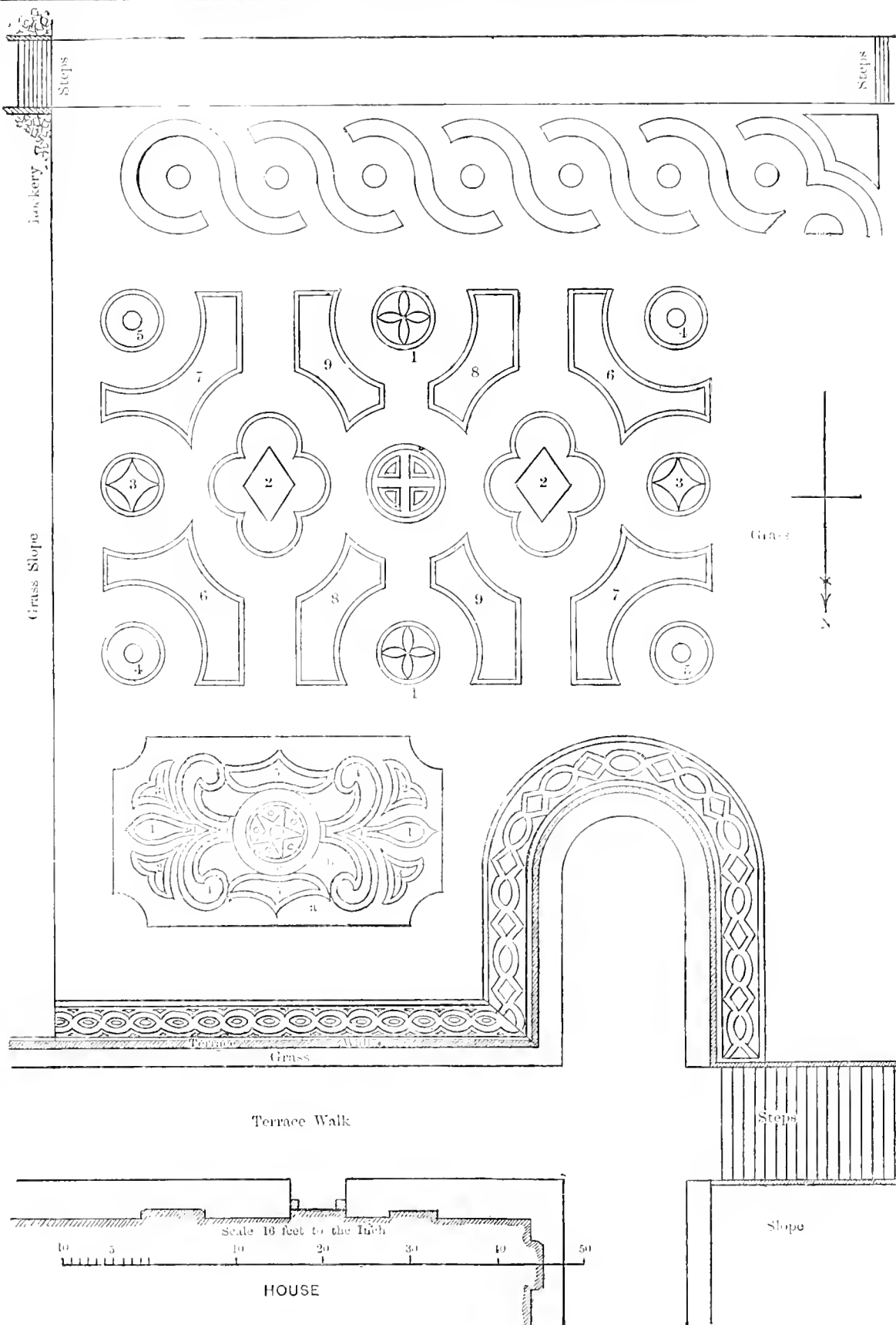


Fig 143.—FLOWER GARDEN AT LANGTON.

Longton has a nice balance of garden features, as lawns, shrubs, flowers, walks, &c. Not many great places can show better all-round gardening (making the best and the most of the means and resources) than this comparatively small place affords. It is a home and a garden enjoyed by the owner, and well it may.—J. WRIGHT.

DOINGS OF THE LAST AND PRESENT WEEKS.

VINERIES.

THE earliest house has been started, the Vines and borders having been previously prepared. There are different methods of doing this; there is a right and a wrong way. We had the management of an extensive range of vineries many years ago, and the winter treatment of the inside borders was such that near the surface no roots were to be found. The surface was forked over and left quite loose, some decayed manure being mixed up with it. At all times care was taken not to tread upon the borders in case of injury resulting therefrom; but perhaps the reason why the roots did not work into the surface soil was the method of watering by dribblers, not giving the Vines sufficient at a time to penetrate to the bottom of the prepared soil, and thirdly, allowing the border to become dusty when the Vines are at rest, which causes the small fibrous roots to perish. After cleansing the glass and woodwork in the manner previously described, and painting the Vines with the usual mixture, 3 or 4 inches of the surface soil were entirely removed, filling up the space with some rich compost. Equal parts of turfy loam and stable manure are as good as any other; this is trodden in firmly with the feet. It ought also to be stated that, before applying the surface-dressing, the border had a thorough good watering with tepid water; the dressing applied afterwards causes the heat to be retained. Some fermenting material is placed in the house, which creates a moist warm atmosphere, thereby causing the buds to break in a more regular manner than they otherwise would. Occasionally the buds do not start well when forced very early, and if they are sluggish it is not at all desirable to hurry them. Until the buds are fairly started the night temperature should not be more than from 50° to 55° in very cold nights; even if the glass falls to 45°, better this than higher. When the first leaves are formed will be the time to push them along.

Planting Vines.—Perhaps March is the best month to do this, but any time will answer during the winter months. The plants will require to have all the roots disentangled and carefully spread out. It is not necessary to cultivate a large number of varieties of Grape Vines. Black Hamburgh, Muscat of Alexandria, and Lady Downe's will be enough, and give more satisfaction than can be derived from a large number of varieties, many of which might succeed only in very favourable positions. In the late vineries we remove decaying fruit and withered leaves as soon as they are perceived. Lady Downe's requires very little attention in this respect; no other Grape keeps so well. Mrs. Pince's Black Muscat has decayed badly; the berries of this variety are very liable to mould. Gros Guillaume keeps well, but some of the berries are slightly cracked at the apex, and many of them are moulding. Where it is intended that the Grapes should keep until February and March the berries should be well thinned-out, and all the large bunches be cut first.

FRUIT ROOM.

Much care is necessary at this season to preserve the finer varieties of Pears and Apples; it is necessary to look carefully over the fruit twice a-week, and to remove that beginning to decay at once, to prevent injury to the sound fruit in contact with it. If the walls are very thick, and the roof composed of thatch, no artificial heat will be necessary unless the frost should be intense. In houses of a contrary description a fire will be necessary. A small stove may be placed in the house if there is no fireplace: of course, if this can be dispensed with, it will be quite as well. Neither Apples nor Pears are improved by artificial heat being introduced into the fruit room.

PLANT STOVE AND HOUSE FOR FORCED FLOWERS.

The greatest requisite in the winter months, for stove plants more especially, is light; the sun "just blinks a wee and sinks again," so we must take advantage of the little we do have. The evergreen climbers trained to the roof cannot entirely be dispensed with, but the wood has been unmercifully thinned-out, and the glass washed on both sides. The plants must not be unduly excited by artificial heat, but where there is but one plant stove, which contains many specimens requiring different degrees of temperature, a considerable difficulty arises. It will be found, however, that in all houses of moderate length, say over 25 feet, one end of the house is usually several degrees warmer than the other; the end nearest the boiler is warmed first, and the water must give off some of its caloric as it flows onward. In our plant stove, 28 feet by 20 feet, there is a difference of about 5°, but even this difference can be increased by covering the warmest end with some thick non-conducting

material. Orchids, such as *Phalenopsis* and even *Cattleya superba*, may be placed where they enjoy 65°; others—and the largest number of species are enumerated here—may have from 5° to 10° lower. The same with other species of stove plants. *Nepenthes Rafflesiana*, and indeed most of the species, require the highest temperature, whilst such as *N. phyllamphora* thrive best in the lower. Let this always be borne in mind, that the cause of disease in many plants, and especially Orchids, is an over-high temperature, causing undue excitement in the winter months. There is also an excellent opportunity now to clean the plants. Scale, bug, &c., may be quite eradicated by constant attention.

Forcing houses for flowers are a necessary adjunct where a continuous display has to be kept up; but it is only large establishments that have houses which can be entirely devoted to this purpose. In many large and otherwise well-arranged gardens flowering plants have to be forced in early vineries, Cucumber houses, or in any other structure where the temperature may not be exactly suited to the requirements of the subjects to be forced. It is vain to expect good results if plants are taken in either from a cold house or, as is sometimes the case, from the open ground, and placed in a high night temperature, say of 60° or 65°, all at once. The root-action does not keep pace with the top growth, and both leaves and flowers are of very weak development, and not for a moment to be compared with those that are first placed in a temperature of 45°, and the heat raised by slow gradations until it reaches the maximum. A little bottom heat is also of great service at this season. The system that gives the best results is to plunge the pots in a bed of tan or other fermenting material, not a high temperature—75° or 80° will be the best; indeed, a high temperature would do harm. We are invariably successful with *Lily of the Valley*, *Dielytra spectabilis*, and *Spiraea japonica* when a night temperature of 45° or 50° can be obtained, with a bottom heat when they are first started; a moderately moist atmosphere is also beneficial. When we have been driven to placing the plants or bulbs to be forced into a high night temperature we have placed the pots on a hotbed to promote root-action first. It is needless to urge the importance of placing the plants as near as possible to the glass; and in the case of Roses, tree Carnations, &c., watching for the first appearance of green fly, and having it destroyed by fumigating at once.

FLOWER GARDEN.

Pinks.—Who wants to know anything about Pinks? Well, they are not grown in very many aristocratic gardens; if they were, doubtless they would be appreciated as they deserve to be. We planted three beds of them: this would have been better done in October, so that the plants might have taken hold of the ground before the sharp frosts of early winter could throw them out of the ground. The beds were in the first place prepared by trenching and manuring the ground, and the plants put out in rows 1 foot apart and 9 inches between each other; and as the soil of the beds was rather wet and not in good condition for planting, a little fine dry mould was placed around the roots of each plant. All the attention the plants require during winter is to press into the ground those that have been thrown out by the frost.

Carnations and Picotees recently potted also require attention. Those plants that are not well rooted have to be protected from frost, but the lights are drawn off the frame on all favourable occasions; decaying leaves are removed from the plants at once, water being applied to the roots when necessary, but not during frosts. *Gladiolus* roots had been placed in pots on the floor of a lateinery to dry, and as soon as convenient the small bulbules will be potted in light sandy loam and leaf mould, the pots to be plunged in cocoa-nut fibre refuse in a cold frame. Removing mildewed leaves from *Calceolaria* cuttings in a cold frame behind a north wall. The weather has been so cold—cutting frosty winds from the north-east, that it was not safe to open the ventilators much. - Protected with mats all frames containing pots of half-hardy subjects.—J. DOUGLAS.

TRADE CATALOGUES RECEIVED.

Little & Ballantyne, Knockisfield Nurseries, Carlisle.—*Catalogue of Forest Trees, Ornamental Avenue and Park Trees, Deciduous and Evergreen Shrubs, &c.*

James Dickson & Sons, Newton Nurseries, and 108, Eastgate Street, Chester.—*Catalogue of Forest Trees, Shrubs, Evergreens, &c.*

Robertson & Galloway, 157, Ingram Street, Glasgow, and Helensburgh.—*Catalogue of Roses, Gladioli, and General Nursery Stock.*

Ant. Roozen & Son, Overveen, Haarlem, Holland.—*Autumn List of Gladioli.—List of Bulbous Begonias.*

TO CORRESPONDENTS.

BOOKS (Beginners).—Our "Greenhouses for the Many" and "Garden Manual" contain full information of what you require. They may be had by post if you enclose 2s. 6d. in postage stamps with your address to our office.

GRAPES (A. J.).—The Grape called *Dr. Hogg* is a new one, and is not, therefore, in the last edition of the "Fruit Manual." It is the best of the White Frontignons, having a larger bunch and berry than any of them, and a most delicious flavour. It may be grown in the same house as Black Hamburgh. The Vine has a very strong constitution, and bears well.

CUCUMBER PLANTS (J. W. B.).—Apply to the market gardeners and nurserymen near you.

CORDON PEACH TRAINING (J. E.).—The information you need would occupy pages to impart. Brichaut's "Modern Peach Pruner," which you can have from our office free by post if you enclose 3s. 8d., contains all you ask for and much in addition.

SELECT PEARS (J. E.).—The following list is in the order of merit:—*Beurre de l'Assomption*, *Souvenir du Congrès*, *Williams' Bon Chrétien*, *Thompson's*, *Doyenné du Comice*, *Glou Morcean*, *Beurre d'Amanlis*, *Doyenné Boursnois*, *Beurré Diel*, *Nouveau Poiteau*, *Vau Mais*, *Léon Leclerc*, *Beurre de Rance*.

VENTILATORS (An Amateur).—Though communicating with a shed, yet, unless that can be kept closed or opened as the greenhouse plants require, it is the safest plan to have shutters to the ventilators.

SWEET NANCY.—In Cheshire the garden Narcissus, *N. poeticus*, used always to be, and is still by cottagers, called "Sweet Nancy."—**CASTRIAN.** Another correspondent gives *N. biflorus* as well.

MEDLARS AND PEARS (L. S., Vineyard House).—Write to Messrs. Webber and Co., Central Avenue, Covent Garden Market, London.

MARCHEL NIEL ROSE PRUNING (R. S.).—You must not cut it back—*i.e.*, the growth of the current year, or it will flower very sparingly. Continue the pruning to thinning-out the long shoots—the old and bare side shoots, but the less pruning the better.

VALLOTA PERFEUA NOT FLOWERING (Idem).—We noticed that this plant did not flower so freely as usual last autumn, probably owing to the dry summer.

VINES NOT SHEDDING LEAVES (Sinclair).—The wood will be ripe now or never, and we should discontinue fire heat, keeping the house cool and dry, but applying fire heat only to exclude frost, so as to ensure the safety of the plants. We do not think you have anything to fear, the Vines having been only planted in April. The application of fire heat in September was proper, and would assist the ripening of the wood. The leaves will fall soon if you keep the house cool and dry. Do not water the border, which we presume has not been watered for some time.

VARIEGATED BEEDING GERANIUMS (W. Russell).—Prince Arthur, chrome yellow ground, black chocolate zone, gold margin; Mrs. Batters, a golden tricolor in the way of Mrs. Pollock, but more vigorous, with larger and brighter leaves; Bright Star, silver edge; Prince Silverwings, white edge, black zone; Harold, golden bronze; and May Queen, white edge.

APPLE TREES NOT LIABLE TO CANKER (Idem).—The kinds least subject to canker are more numerous than those which are liable to it, which are Ribston Pippin, Hawthornden, those being the worst we know; Orange Pippin, Keswick Codlin, Lord Suffield, and others of the Codlin type, and Nonpareil. The Pearmain is also liable to canker. Kinds not liable to canker are Gravenstein, King of the Pippins, Red Astrachan, Reinette du Canada, Dutt Mignonne, Cockle Pippin; these are dessert kinds. Kitchen kinds are Alfriston, Beauty of Kent, Bedfordshire Foundation, Blenheim Pippin, Cox's Pomona, Dumelow's Seedling, Warner's King, Mère de Monage, Norfolk Bearer, Norfolk Boeding, Bymer, Winter Majestic, and Tower of Glamis. The canker, however, is due to your soil. A good surface-manuring would do them good; in fact in such a soil fruit trees require very liberal treatment, so as to encourage their rooting near the surface.

LILY OF THE VALLEY IN POTS—BUDDED ROSES (St. Edmunds).—Leave the Lily of the Valley under the wall plunged in ashes, and with a protection of 2 or 3 inches of ashes or cocoa-nut refuse over the pots until you wish to introduce them into the greenhouse, which you may do about six weeks before they are wanted to flower. Leave the budded Roses where they are until they have grown a year, and then plant, covering the junction in the subsequent autumn with about 2 or 3 inches of soil.

HONORARY SECRETARY'S DUTY (A Constant Reader).—You cannot compel him to make out a balance sheet though he refuses to obey the decision of the Committee that he shall. For his own character's sake we think he ought to do so. The Committee could compel him to render an account of moneys received on account of the Show.

SAFFRON (H. B.).—We do not know who grows the *Crocus sativus* and prepares saffron from it. In Cambridgeshire it was grown largely. The chief supply of saffron comes to us from France and Spain. Can any of our readers inform us where it is prepared in England?

WINTER CUCUMBERS.—"Your correspondent, Mr. William Taylor, at page 463, seems to be an advocate for moderate temperatures for winter Cucumbers. I can only get good Cucumbers with a minimum temperature of 60°, and never lower than 58°, and a maximum temperature of 68°, sometimes 75°. Will 'W. T.' kindly state the varieties of Cucumbers he grows?"—**R. R. S. H.**

CHERRY (C. P.).—The nearest name to that you mention is the Marcellin, better known in England as the "Monstrous Heart."

SALE OF FRUIT, &c. (Z. N.).—It is quite impossible for us to answer your queries. Prices vary with the season and the demand. You should come up to Covent Garden Market and talk with the salesmen.

NAME OF APPLE (J. B.).—We do not know it by the name of "D'Arcy Spice." If you send us two or three we may identify it. The "Fruit Manual" is half printed.

CAMELLIAS DROPPING BUDS—CINERARIAS DYING SUDDENLY (Beginner).—The cause of the buds falling is difficult to account for when no particulars of treatment are given that are necessary for forming an opinion. The buds usually fall when the plants have not good root power. The roots may be injured by leaving the plants out late in autumn till the soil is sodden with rain, by want of water, or by a sour soil, any of which causes may produce an inactive state and often decay of the fibres, and the buds are cast because the conducting sap vessels are closed. A check to growth, as well as loss of roots, will cause the buds to drop; but we think you have sufficient cause for the buds falling in a temperature 40° to 60°. From fire heat at this season, 45° to 50° should be the maximum, and 40° the minimum for Camellias, air being given at 50°, but not to lower the temperature, and air taken off at 50°. Ours are blooming satisfactorily in such a temperature. The weak liquid manure would be beneficial, but as yours are casting their buds it will do harm. Cinerarias dying suddenly is a puzzle to plant-growers, and admits of no solution.

The plants do best when on a cool bottom and moist, so that frequent waterings are not required. Probably the plants have been pot-bound, and have then had a large shift, whereas the shifts should be frequent and small, keeping the neck or collar of the plants slightly raised to the centre of the pot, so that the water in watering drains from, instead of to, the stems of the plants.

DEEP PLANTING STANDARD ROSES (Idem).—Fifteen or eighteen inches is much too deep to plant. Plant them so that the uppermost fibres will not be more than 4 to 6 inches below the surface, manuring liberally, and mulch around with littery manure. Nothing repays liberal treatment so well as Roses.

CUTCH GRASS IN VINE BORDER (X. Y. Z.).—You may with safety, so far as the Cutch Grass is concerned, place a layer of turf, grass side downwards, at the bottom of the Vine border, upon this the drainage, covering it with 2 feet of soil not containing Cutch-Grass roots. The roots of this Grass are disposed near the surface.

DISTANCE OF STAGE FROM THE GLASS (Idem).—For a multitude of purposes the most suitable distance for the stage would be 3 feet. The plunging material you will not require if you have a stage, and of those you name neither is suitable. The leaves would be suitable for bottom heat, which would answer for the Cucumbers and Melons, and for propagating covered with cocoa-nut fibre for plunging the pots into.

NAMES OF CONIFERS (H.).—It is difficult to name these from sprays. They appear to be—No. 1, *Juniperus chinensis*; 2, *Cupressus Lawsoniana gracilis*; 3, *Thuja orientalis anra*; 4, *Thuja occidentalis compacta*; 5, *Juniperus virginiana*; 6, *Cupressus Lawsoniana stricta*.

NAMES OF FRUITS (S. M. W.).—1, Blenheim Pippin; 2, Orre's Apple; 3, Margil; 4, Golden Pearmain; 5, Golden Winter Pearmain. (*B. cum J.*)—73, 165, 31, 157, 237, 254, 26, 321, are all Vicar of Winkfield; 15, Easter Bours. Others not recognised; all but apocryphous. (*W. Hagg*)—Garden Reinette. (*E. M. M.*)—Your Pear is *Beurre Bosc*.

NAMES OF PLANTS (A. R.).—*Chrysanthemum segetum*, Corn Marigold. (*J. H. R.*)—*Tamarix gallica*, Tamarisk, one of the most graceful of shrubs, and bears exposure to sea breezes on all the south coast. It blooms in summer, in autumn and winter occasionally. (*L. E. B.*)—1, *Lolium italicum*, var. (?) 2, *Lepigonum* (*Sparganium*) *marginatum*; 3, *Helosciadium latifolium*; 4, *Hieracium umbellatum* (?); 5, *Atriplex* sp. *Speciosus* very indurated. (*Wm. H.*)—1, *Notechola tenera*; 2, *Chelanthus hirta*; 3, *Athyrium Filix-femina*. (*Wm. Bork*)—1, *Cystolepis* (*Echeveria*) *pubescens*; 2, *Mesembryanthemum spectabile*; 3, *Cotyledon* (?); 4, *Portulaca oleracea*; 5, *Mesembryanthemum*; 6, *Enaloe*, species indeterminable.

POULTRY, BEE, AND PIGEON CHRONICLE.

THE EXHIBITION DORKING.—No. 1.

BY T. COKE BURNELL.

DORKINGS have always stood well in the estimation of the poultry-loving public, even before their fine size and comely shape were brought prominently into notice by public exhibitions. So far back as 1833 birds of this breed realised high prices, and in that year the Rev. — Boyes sold his prize pen at Hitchin for £50, and the Rev. S. Donne lost his prize birds at the Midland Counties Show, although protected by twenty guineas. Other instances of equally high prices are not wanting. In 1867 Lady Holmesdale's yard of Dorkings, which had been under the management of Mr. John Martio, realised over £100, and the prices given at this sale for individual birds would almost exceed belief. To come down to the present day, I will only instance my pen of chickens at Oxford last year, which were claimed at the catalogue price of twenty guineas, after winning Prince Leopold's cup; and my first-prize cock at the Crystal Palace Show this year sold for the same price; and I am more than ever convinced that £25 would not now be sufficient to protect a single cock, were he the best of the year and a likely stock bird.

With such a ready sale for good birds at high prices in prospect, surely a fair field for surplus energy is open to the dweller in the country. For my part I know what it is to have had to give up my profession through delicate health; and I am sure there are many like myself, who would hail with delight an occupation which gains upon one with success, and which combines with fresh air an occupied mind, a fair amount of excitement, and a good prospect of substantial profits. That the latter is no chimera I can positively state from experience; and lest anyone should be deterred by a want of knowledge, I will add that four years ago I knew as little about exhibition poultry as the most ignorant of my readers. In order that I may not be considered egotistical I will here say that the views I shall express on Dorkings are not given solely on my own authority, but only after careful study of previous works on the subject, and numerous pleasant chats with some of the most noted breeders of the day. Although Dorkings are my particular fancy, I will not ask anyone to suppose that I think them suited to every exhibitor and every situation. To anyone who has a moderate grass run and a desire for a plentiful supply of very superior chickens for the table, with a fair amount of eggs, I believe they are unrivalled, but for damp back yards and other confined spaces they are altogether unsuited.

It is often said Dorkings are only adapted to a gravelly or chalky soil; but this is a mistake, or neither Mrs. Arkwright nor Admiral Hornby would have been so successful, their poultry runs being situated on a stiff clay soil. I quote these instances in order that no amateur may be deterred, but at the same time think that anyone situated in a damp locality would be better

suited with the yellow-legged breeds, though not so well suited for the table.

As to the Dorking being tender, I can only say that last year I reared over a hundred Dorking chickens and only lost one; but this is too fortunate an average to take for any breed.

As to the economic merits of Dorkings, I have always found them fair layers of large-sized eggs; and so precocious are the pullets, that it is one of the principal difficulties of the exhibitor in this breed to keep them from laying and too early maturity.

Of the different varieties the Cuckoos are the best layers, but then they do not reach to the size of the coloured birds. For farmyard and useful purposes I prefer the Coloured and Cuckoos; while, if it is desired to combine a really useful fowl with an attractive form, I think the Whites and Silvers are unequalled.

To the would-be exhibitor Dorkings possess one very great advantage over every other breed, and an advantage, too, that cannot be lightly estimated—they are within the power of every honest fancier to prepare for show; there are no vulture hocks to pluck and curl, no hickies to pull, and no colours to dye; neither have they to be kept shut up in the dark to bring out their colours. Anyone who knows what is constantly done and exposed in some breeds will not estimate these advantages too lightly, and it is for this reason more than any other that I venture to recommend Dorking fowls to anyone wishing to become a poultry fancier.

THE CRYSTAL PALACE POULTRY SHOW.

Now that the great Show has passed I would direct attention to a matter which, in the interest of exhibitors, I think requires alteration. For two seasons past I have noticed that some of the Judges of Pigeons have also exhibited; and without attempting to impute unworthy motives to any individual, yet I think it would be far more satisfactory to all parties if the Judges had no interest whatever in the specimens on which they had to adjudicate. If one Judge shows I imagine there can be no reason to prevent the remainder; and although that exhibitor, being also a Judge, may possibly not award the prizes in the classes in which he exhibits, yet there exists the awkward fact of some of the Judges being directly interested in the classes to be judged by the others. Such cannot fail to call forth angry comments, and it seems to me ought not to be; and although the Exhibition just held is proof that at least one of the Arbitrators acted independently, and justly passed over the birds having an unnatural appearance shown by one of the others, yet this may not always be the case, and the sooner all proceedings capable of being made questionable, and of exciting the suspicions of the general body of the exhibitors are stopped, the better for all parties concerned.—F. T. WILTSHIRE, *The Manse, Lower Addiscombe.*

HAMBURGHES.

THE three varieties which I think stand pre-eminent for useful properties, as well as handsome bearing and plumage, are the Houdans, Brahmans, and Hamburgs. It was, therefore, with regret that I saw the last-named breed impeached, although wrongly, as being unsuitable for the Welsh climate. Mr. Price, Rhiwlas, Bala, has stated that Wales is too cold for these birds. If Mr. Price had qualified his assertion by limiting himself to Rhiwlas, Bala, even then his accusation would be open to criticism and doubt.

The following fact and facts are sufficient to refute Mr. Price's statement. Our esteemed Welsh judge, the ardent fancier, the veteran Hamburg breeder, Mr. J. Carr, The Hafod, Swansea, shows what he can do when, from the smoky manufacturing town of Swansea, he can send a Silver-spangled cock fit to be exhibited anywhere, and standing first on the list at the National Crystal Palace Show, bearing away the laurel from such distinguished exhibitors as Messrs. Beldon, Ashton and Booth, His Grace the Duke of Sutherland, and others.—A. T. W., *Kidwelly.*

OAKHAM POULTRY SHOW.

This was held on the 25th and 26th of November. The following are the awards:—

DORKINGS.—1, Countess of Lonsdale, Barleythorpe, Oakham. 2, C. Speed, Oakham. *hc*, C. White, Clipham, Oakham.
COCHINS.—1, C. White. 2, Miss J. A. Wingfield, Market Overton.
BRAHMA POOTRA.—1, C. Speed. 2, E. Snell, Barrowden, Stamford.
SPANISH.—1, Withheld. 2, M. Kew, Market Overton, Oakham.
HOUDANS, CREVE-CŒUR, LA FLECHE, OR ANY OTHER FRENCH FOWLS.—1, F. G. Pascall, Oakham. 2, E. Snell.
HAMBURGS.—1, E. Snell. 2, M. Kew. *c*, Rev. G. Skipworth, Oakham; W. Hughes, Oakham.
GAME.—1, Countess of Lonsdale. 2, A. Peake, Somerby, Oakham. *hc*, C. White. *c*, C. Speed.
BANTAMS.—1, Withheld. 2, E. Snell.
DUCKS.—1, Miss E. Wingfield, Market Overton. 2, Rev. G. Skipworth. *hc*, E. Snell. *c*, W. Hughes.
DORKINGS.—Coloured.—Cock—1 and Cup, J. Walker, Spring Mount, Rochdale. 2, A. Darby, Little Ness, Shrewsbury. 3, J. Watts, King's Heath. *hc*, R. Cheesman, Westwell, Ashford. *Shew's* **Pullets.**—1, A. Darby. 2, J. Watts. 3, J. Walker. *hc*, Rev. E. Barrum, Berkhamstead; J. Pollard; R. Cheesman.

DORKINGS.—Silver-Grey.—Hens or Pullets.—1, O. E. Cresswell, Early Wood, Brighthelm. 2, L. Wren, Lowestoft. *hc*, Marchioness of Exeter, Stamford.
DORKINGS.—White.—Cock.—1, W. Moritt, Gooles. 2, O. E. Cresswell. *hc*, Rev. F. Tearle, Newmarket; C. Speed; Marchioness of Exeter. *Hens or Pullets.*—1, O. E. Cresswell. 2, Rev. F. Tearle. *hc*, A. Darby; Marchioness of Exeter. *c*, C. Speed.

SPANISH.—Black.—1, T. Rogers, Walsall. 2, E. Brown, Sheffield. 3, M. Brown, Ab Ketyby. *hc*, Mrs. Allsopp, Worcester.

SPANISH.—Chickens—1 and Cup, Mrs. A. Lopp. 2, J. Boulton, Bristol. 3, H. Yardley, Birmingham. *hc*, J. F. Dixon, Colgrave, Nottingham (2); H. Wilkinson, Ebury, Skipton; E. Brown, Sheffield.

COCHINS.—Cock—1, J. Walker. 2, J. W. Crosby, West Bromwich. 3, T. M. Derry, Godley; H. Feast, Swansea; Lady G. Gordon, Orton, Longtonville, Peterborough; J. K. Fowler, Aylesbury. *c*, T. Seal, Aylesbury. *Hens or Pullets.*—1 and Cup, W. Smart, Walsall. *hc*, H. Feast. *hc*, Mrs. Williamson, Leicester; J. Walker. 2, J. W. Crosby, West Bromwich. 2, T. M. Derry; A. Darby; W. Smart; J. Watts. *c*, H. J. Ginnell, Milton; H. Yardley.

BRAHMA POOTRA.—Dark.—Cock—1, J. Watts. 2, M. Leno, Mirkyate Street, Dunstable. *hc*, Rev. J. D. Peake, Laleham, Chertsey. *c*, J. M. Wilbers, Banstead, Botesford. *Hens or Pullet*—1 and 2, R. J. D. Peake. *hc*, J. Robinson, Whitecoats, Chertsey; Rev. T. C. Peake, Hallaton, Uppingham; O. E. Cresswell; L. N. Travis, Tinsington, Cambridge; W. Hargrave, Baeap; H. Feast; J. S. Clarke, Gandle; M. Leno; J. Watts (2). *c*, L. Norris.

BRAHMA POOTRA.—Light.—Cock—1, J. Long, Bromley Common. 2, Mrs. Williamson. *hc*, C. Graves, Royston, Chertsey. *Hens.*—1, Mrs. Williamson. 2, Mrs. Peet, Sharnbrook, Bedford.

HOUDANS.—Cock and Hen or Chickens—1, R. B. Wood, Uttroter, 2, W. O. J. Derry, Newark. *hc*, G. N. Hibbert, Godley, Hyde, Manchester; W. Cutlack, jun., Littleport, Ely. *c*, H. G. Foster, Walsall.

CREVE-CŒUR.—Cock and Hen or Chickens—1 and Cup, W. Dring, Faversham. 2, G. Hibbert. *hc*, R. B. Wood; H. Feast. *hc*, R. B. Wood.

HAMBURGS.—Silver-spangled—1, J. Long. 2, H. Feast. *Silver-pencilled*—1, J. Long. 2, B. Feast.

HAMBURGS.—Gold-spangled—1 and Cup, S. W. Hallam, Whitwick, Leicester. 2, J. K. Tickner, Ipswich. *hc*, Mrs. Blakeman, Tettenhall, Wolverhampton. *c*, J. Long. *Gold-pencilled*—1, J. Long. 2, O. E. Cresswell. *hc*, J. Smith, Littleport, Ely. *hc*, W. H. Ginnell, Walsall.

HAMBURGS.—Black—1, R. S. S. Woodgate, Pembury, Tunbridge Wells. 2, J. Wilkison, Shawford, Rochdale. *hc*, W. Cutlack, jun., Littleport, Ely. *c*, H. Feast.

GAME.—Red and other Dark colours.—Cock—1, W. Adams, Ipswich. 2, H. Lotan. 3, J. Jeken, Eltham. *hc*, A. Barnett, Stamford. *c*, B. Everard, Leicester. *Hens or Pullet*—1 and Cup, E. Winwood. 2, N. Whitechurch, Melton Mowbray. 3, J. Jeken. *hc*, J. Stoppard, Wicksworth. *c*, A. Peake, Somerby, Oakham.

GAME.—White, Piles, and Light Colours.—Cock—1, W. Dabell, Farnfield, Southwell. 2, W. Adams, Ipswich. *hc*, J. Parker, jun., Markfield. *hc*, T. P. Lyon, Liverpool. *Hens or Pullet*—1 and 3, N. Whitechurch, Melton Mowbray. 2, W. Dabell. *c*, B. Everard, Leicester.

BANTAMS.—White, Clean Legs.—Cock and Hen or Pullet—1 and *hc*, Rev. F. Tearle, Newmarket. 2, B. Painter, Burley-on-the-Hill. *Black, Clean Legs.—Cock and Hen or Pullet*—1, J. Earnshaw, Hollowgate, Rotherham. 2, R. H. Ashton, Nottingham. *hc*, J. Walker. H. Draycott, Leicester. *Gold or Silver-laced.—Cock and Hen or Pullet*—1, 2, and Cup, M. Leno. *hc*, J. Walker; Mrs. Wootton, Mapperly, Nottingham; W. Stringfield, Lowestoft; H. Feast, Swansea. *Any other variety.—Cock and Hen or Pullet*—1, J. Walker. 2, Mrs. J. Longe, Ipswich. *hc*, R. S. S. Woodgate, Pembury, Tonbridge Wells.

GAME BANTAMS.—Cock—1 and Cup, W. Adams. 2 and 3, W. B. Jeffries, Ipswich. *Hens or Pullet*—1, W. B. Jeffries. 2, S. Beighton, Farnfield, Southwell. 3, A. Darby, Little Ness, Shrewsbury; J. M. Other, Newark.

POLANDS.—Cock and Hen or Pullet—1, G. W. Boothby, Louth.

ANY OTHER VARIETY—1, R. S. S. Woodgate (White Silkie). 2, M. Kew (Malays).

TURKEYS.—Cock—1 and Cup, J. Walker. 2, Mrs. H. J. Ginnell. *hc*, Rev. N. J. Ridley, Newbury; M. Kew; G. R. Pearson, Colston Bassett, Birmingham; N. Whitechurch, Melton Mowbray. *Hens*—1, H. J. Ginnell. 2, M. Kew.

TURKEYS.—Young Cock—1, E. Kendrick, jun., Lichfield. 2, J. Walker. *hc*, J. Holwell, Macclesfield; Countess of Lonsdale. *hc*, Rev. N. J. Ridley; N. Whitechurch. *c*, M. Kew. *Young Hen*—1 and 2, J. Walker. *hc*, M. Kew (2).

DUCKS.—White Aylesbury—1 and Cup, J. Walker. 2, J. K. Fowler. *hc*, T. Holton. *hc*, J. Walker; J. Hedges. *c*, H. J. Ginnell. *Rouen*—1, J. Walker. 2, J. K. Fowler. *hc*, W. Hughes, Oakham. *hc*, C. A. Crane. *East India, Mandarin, Carolina, Wild, or any other variety*—1, J. Walker (Mandarin). 2, M. Leno (Fancy). *hc*, Mrs. Stafford de Wansford; H. Yardley (Fancy); M. Leno (Fancy).

DUCKS.—White—1 and Cup, J. Watts. 2, E. Snell. *hc*, J. K. Fowler. *hc*, Mrs. Stafford de Wansford; M. Kew. *Goosings*—1, J. K. Fowler. 2, T. M. Derry. *hc*, G. H. Finch, Burley-on-the-Hill; N. Whitechurch.

GEES.—1, J. K. Fowler. 2, W. H. Crewe, Derby. *hc*, M. Kew. *Goosings*—1, J. K. Fowler. 2, W. H. Crewe. *hc*, M. Kew.

SELLING CLASS.—Cock or Cockerel.—Price not to exceed 80s.—1 and Cup, T. Rogers, Walsall. 2, T. M. Derry (Cochin). 3, H. Yardley. *hc*, L. Wren (Dorking); T. M. Derry (Dorking); S. Beighton, Farnfield, Southwell (Game); M. Kew (Malay); J. S. Clarke (3). *hc*, Cheesman; J. Watts.

SELLING CLASS.—Hens or Pullets.—Price not to exceed 80s.—1, E. Kendrick, jun. (Cochin). 2, C. Speed (Dorking). 3, J. Watts. *hc*, Rev. J. D. Peake (Brahma); H. Wilkinson; H. Yardley; E. Snell (Hamburgs); T. Rogers; J. S. Clarke.

MISCELLANEOUS SELLING CLASS.—Price not to exceed 40s.—1 and 3, W. Hughes (Turkey). 2 and *c*, M. Kew (Ducks and Turkey). *hc*, J. Walker; Rev. H. L. Wingfield, Market Overton (Rouen); T. M. Derry (Geese).

LOCAL CLASSES.

DORKINGS.—Chickens.—Cop, J. Pollard, Oakham.
CROSS-BREDS.—*Chickens*—1, Miss E. Wingfield. 2, Mrs. H. Wingfield, Market Overton. 3, C. White. *hc*, Miss E. Wingfield; Countess of Lonsdale (2).
DUCKINGS.—*Cross-bred or Common*—1, —Fisher, Ashwell, Oakham. 2, B. Painter, Burley-on-the-Hill. *hc*, R. L. Bradshaw, Egleton, Oakham; B. Painter.

PIGEONS.

TUMBLERS.—1, H. Yardley, Birmingham. 2, A. & W. H. Silvester, Sheffield.
CARRIERS.—Cock—1, E. Walker, Braunstone Gate, Leicester. 2, H. Yardley. *hc*, H. E. Walker. 3, H. Yardley. *Young Cock or Hen*—1 and 2, E. Walker. *hc*, H. A. Walker, Southam, Rugby.

POUTERS.—1 and *hc*, H. Pratt, Hampton-in-Arden, Birmingham. 2, C. H. Byford, Ipswich.

JACOBIANS.—1, S. Lawson, Preston. 2, G. Hardy, Shepherd's Bush, London. *hc*, T. W. Swallow.

FANTAILS.—1 and 2, J. F. Loversidge, Newark. *hc*, H. Yardley; J. Walker. *hc*, Newark.

TURKEYS.—1, J. Lederer, Boodle, Liverpool. 2, Withheld.

NUNS.—1, H. Yardley. 2, J. Watts, Birmingham.

TURBANS.—1, Cup, and 2, G. Hardy. *hc*, E. Snell, Barrowden, Stamford; H. Yardley; S. Lawson.

RUNTS.—1, H. Yardley.

DRAGONS.—1, G. Hardy. 2, H. Yardley.

MAGPIES.—1, G. Hardy. 2, C. G. Hinchcock, Oxford. *hc*, H. Yardley; J. Watts.

ANY OTHER VARIETY.—1, E. Walker (Barbs). 2, H. Draycott, Leicester (Barbs). *hc*, R. B. Wood, Uttroter (Florentines). *hc*, H. Yardley; A. & W. H. Silvester.

SELLING CLASS.—1 J. Watts. 2, W. Gamble, Melton Mowbray (Trumpeters).

J. H. Yardley, *hc*, E. Walker (Trumpeters); R. Kirkland, Uppingham (Dragoons.)

JUDGES.—*Poultry*: Mr. E. Hewitt, Sparkbrook, Birmingham, and R. Teebay, Fulwood, Preston. *Pigeons*: Mr. F. Esquilant, Brixton.

BIRMINGHAM POULTRY SHOW.

THE JUDGING DAY AT BIRMINGHAM.—The great poultry "Derby" has come round, or at least what used to be looked forward to as such by all the poultry-fancying world; but, unfortunately, as times change, and all the arrangements of poultry shows improve, Birmingham does not change, and, except in one or two minor points which we gratefully hail and acknowledge, Birmingham does not improve. Twenty years ago all that was thought necessary at a show was to cram so many birds into so many pens, and give them food twice a day, with little more care for their comfort; but unfortunately for exhibitors and their birds, far more is now expected at any first-class show. At the Crystal Palace, Oxford, and elsewhere we see the pens kept clean, the floors covered with grit or chaff, and green food supplied; the consequence is that the birds come home bright and healthy; but at Birmingham for nearly a week they wallow in dirt on boards, and the result all exhibitors know. This year some improvement has been made: water is hung up in proper drinking vessels, and a handful of white sand was put in each pen, which the birds rapidly dispersed. Surely the eight-shilling entry fee could provide a little road-scrappings and a cabbage leaf for every pen. So much we think it our duty to say, in the hopes that this old-established Show may, before it is too late, be prevented from falling entirely into disrepute.

The judging day is a real treat at Birmingham. One can see everything in quiet, make-up one's opinion as to which ought to be the winner (and we are not obliged to change it always when it has not been prophetic of the awards), and pick-out the bargains against the struggle at the sales' office on Monday morning. The ten-shilling entrance fee is well spent, and we advise all fanciers to spend it next year, not omitting to put on great coats, for a more draughty place than the Poultry Hall it is impossible to conceive.

Brahmas now head the book. Why? Perhaps because they are more likely to brave well the cold of the upper end of the building than Dorkings; or, perhaps, their admirers will tell us because they have been found a more generally useful breed. They number five hundred pens. We are glad to see several new winners, and not merely the Palace champions with all their places transposed. The Selling classes must be a boon to the Judges in eliminating much rubbish from the superior classes, but we wish the price might be extended to £5 a pen, for rows of Dark hens with hideously light and speckly breasts testify to the fact that decent breeding birds cannot be bought for 30s. each.

Dorkings show a falling-off; there are not two hundred pens in all. We miss the immense classes of Coloured cockerels and pullets there used to be, and their quality too. Silver-Greys (barring the old cocks) are good, and so are Whites.

In *Cochins* the competition is very great. We never remember having seen such a high average in Whites as in the hen and pullet classes. Their awards were not out when we left late in the day.

Malays muster very strong, and after them the *French*, *Spanish*, and *Hamburgh* classes are all of their ordinary size and merit. When we come to *Polish*, Silvers seem going up both in numbers and merit. There are several pairs of hens of extraordinary beauty, their immense tufts still asymmetrical. Alas for the beautiful White-crested Blacks! they are becoming few, and their looks betray in-breeding and degeneracy. The Variety class contains nothing very remarkable. We saw a pen of Black *Cochins* with more than ordinary lustre; a pen of Padua *Chamois* of poor washy colour. It is a sad pity that no one takes up the more rare *Polands*. Selling classes for varieties other than *Brahmas*, *Dorkings*, and *Cochins* are a failure. White *Bantams* actually muster but one pen short of their Black cousins.

Rouen *Ducks* and *Turkeys* are a marked feature of Birmingham. *Turkeys* especially are well seen in the Cattle Hall, and are in ample pens, where they look happy and less cramped than in the ordinary zinc pens. There are four classes for them, and eighty entries—a grand opportunity for purchasers who want to improve their stocks. *Turkeys* seem scarcely to have a fancy value, and many grand birds are for sale at little over market prices.

THE *PIGEONS*, as usual, are in the gallery; the classes small but excellent. On the first day the *Pigeons* fare well, for the temperature in the gallery is warm and even; on the later days the heat in former years has been intolerable, and the poor birds have suffered much.

At intervals throughout the day the awards, as far as made, are posted up on a card, and this year on an improved plan: the number of every pen noticed being given in order, with its distinction. Such were our impressions of the judging day—too

short by far at this time of the year, and in Birmingham, to "do" the Show, but long enough to give a pleasant glance at the whole thing, and to make us wish that our birds had not five more days to endure in Bingley Hall.

[Such were the notes made before the awards were announced, and then our reporters combined and wrote in addition:—]

BIRMINGHAM, venerable Birmingham, the mother of poultry shows, now holds her annual gathering; the same old faces met again on Saturday last at Bingley Hall—the same old faces were to be seen at the "Acorn" in the evening. Birmingham, with a few exceptions, remains the same; she has adopted a few of the "Selling Classes" that have proved so successful at her fashionable daughter's entertainment at the Crystal Palace, and we find a little larger supply of silver plate in the schedule; in other respects the Birmingham of 1874 is the Birmingham of 1861. We are pleased to record the fact—Birmingham is respected for her antiquity. The old supporters who have visited and exhibited since she has held a show would be sorry to see any great innovation; and fanciers, who may be tempted to pay another Birmingham a visit, would hardly care to see the same birds exhibited in the same manner, and probably in the same position in the prize list as at the Crystal Palace. But here we have a change—the hens and pullets are shown in pairs: this makes a greater strain upon the resources of a poultry yard than the exhibition of a single hen or pullet, and consistently a greater impression is made upon the mind of the fancier with regard to the general quality of the exhibitor's stud.

The entries of *Pigeons* are 116 less than those of last year, but this is more than made-up by the increase in the number of entries in the poultry classes. We append a comparative statement of the entries in the several varieties for seven years:—

	1868	1869	1870	1871	1872	1873	1874
Brahma Pootra.....	233	233	261	340	384	444	501
Dorking	305	331	294	280	244	227	182
Spanish	103	70	72	85	70	17	50
Cochin-China	312	260	323	261	264	229	317
Malay	11	18	27	16	24	44	46
Creve Coeur, &c.....	101	97	107	99	117	92	91
Hamburgh	253	181	195	225	175	142	148
Other distinct breeds ..	20	23	12	19	19	25	29
Polish Fowl	47	56	63	58	47	38	37
Game	432	335	374	382	330	295	335
Bantams	208	142	174	153	105	131	147
Ducks	129	116	120	133	124	184	117
Geese	47	39	35	32	31	18	22
Turkeys	64	50	67	55	67	47	80
Pigeons	432	432	453	574	339	491	375
	2747	2453	2578	2661	2385	2341	2477

BRAHMAS have this year superseded the *Dorkings* in their place of prominence in the catalogue. The *Dark cocks* we thought a good class, but many of the best birds were not in condition. Pen 20 (Ansdell), a grand bird, secured the first prize. Pen 15 (Percival) was second, but we liked the third-prize (*Lacy*) better. He was a splendid cock, good in shape, size, and colour. Pen 14 (Lingwood), fourth, was rather up in the tail, otherwise he would doubtless have obtained a better position. Pen 27 (Cotterell) and pen 14 (Bennett), very highly commended, well deserved the distinction; the latter was beautiful in colour, a good shape, but rather small. Pen 6, highly commended, we liked, but he was not over his mount. Pen 21, highly commended, had some good properties, but he was out of condition.

The *Cockerel* class was a large one, and contained some fine specimens. Pen 107 was awarded the first prize, the winner of the twenty-guinea cup at the Crystal Palace being placed second. In some respects we liked the winner; he was a good-framed bird, had a small comb, but it was peculiar, being narrow and spiky. He had not what we should call quite a mottled breast, as the old style of *Brahma* cocks had, but a peculiarly-marked breast; some of the feathers we should describe as pencilled, and others as aplashed. The second-prize bird was not in such good condition as at the Palace. The fourth and fifth birds we liked, and they deserved their position. Pen 57 (Miss Pennant), very highly commended, will make a good bird; pen 99 (same owner), very highly commended, pretty, but small; pen 58 (Smith), very highly commended, had a bad comb, was very leggy, and we thought not worthy of the distinction; pen 64 we were also at a loss to know why it was very highly commended; pen 45 (Gwydyr), highly commended, was pretty, but had a little white in fluff; pen 80 (Lingwood), unnoticed, we thought in some respects the best bird in the class.

Hens.—Pen 132 (Ansdell) was first. It contained two fine birds, but not quite a match; one was very fine in colour and markings, the other we thought a little inclined to be mossy. As a pair we liked the second-prize pen (Crabtree); they were very large and well matched, but in markings not quite equal to one of the birds in the first-prize pen, but both superior to the other. Pen 122 (Lingwood), third; both birds were more distinctly marked than the two first pens, but not so large or good in leg-feathering. Pen 139 (Wright), fourth, very large, good in shape, with a good ground colour, but not so well pencilled as the first three.

Pullets.—With the exception of the two first pens we thought them a poor lot. Pen 208 (Leno) were first; they were beautifully marked, sound in colour, rather small, but decidedly deserved their position. Pen 190 were also well pencilled, but small; pen 205, third (Watts), were well matched; pens 184 and 185, fourth and fifth, were poorly pencilled; pen 169, highly commended, contained one good pullet; pen 195, highly commended, we preferred to fourth and fifth; pen 166, unnoticed, also contained a pair we thought equal to fourth and fifth.

Light Brahmas.—The old cock class was a very poor one. Pen 341 (Turner), first, was a small bird, good in colour; condition, we consider, placed him in his position. Pen 230 (Webb) was more like a Houdan in colour than a Brahma; we could not understand why he was placed second. Third (Worthington), fourth (Cotterell), were good in colour; the latter had an ugly comb. Many good birds were out of condition or not over their moult, otherwise, we feel sure, some of the winners in this class would not have obtained their honours.

Cockerels.—Here Mr. Lingwood secured both first and second prizes with two well-grown nice birds with good points. 226 (Haines), third, was a large bird, but getting very yellow. 253 (Haeeler), fourth, was small, white in tail, poor in markings, with only a good ground colour to recommend him; he was entered at £3 3s., by no means a bargain. 262 (Williamson), fifth, small, but better than fourth. Very highly commended and highly commended were conspicuous by their absence in this class. Pen 280 (Bird) we considered deserved notice.

Hens.—305 (Williamson), first, beautiful in colour, and shown well. 315 (Cotterell), almost as good, but not in the condition of the first. 301 (Percival), third, contained one good hen; the other we thought had a yellow tinge. 304 (Turner), highly commended, as a pair we liked as well.

Pullets.—318 (Williamson), first, a nice pair. 367 (Haines), second, large, but not so clear in markings as the first. 341 (Mitchell), one good pullet, the other narrow and rather yellow. 348 (Leno), fourth, as a pair we thought them better than third. Pen 362 (Thorn), fifth, nicely matched, well marked, but small. 345 (Watte) we fancied deserved some notice from the Judge.

DORKINGS.—Taking the Dorkings as a whole they were not equal either in numbers or quality to those lately exhibited at the Crystal Palace, neither did they show to such advantage in the wooden pens, which we are sorry to say were not kept very clean.

Mrs. Arkwright took the cup for old cocks with a very large bird and good in feet, but indifferent in comb and very light in colour. Second, a grand bird, which lately took the cup at Oakham. Third, Mr. Darby's Rose-comb, very large, with grand feet and legs. Fourth, a good Dark bird, but in shocking condition, his comb having quite fallen over. Pen 505 (Burnell) was not the first Palace bird, which we hear has changed hands at twenty guineas.

Coloured cockerels were a good class. First, very good in comb and feet, but hardly dark enough in colour; second, a neat bird with good comb; third, very young, and will make a fine cock; fourth, very white in breast; fifth, a very good bird, and well placed. Pen 541 (Mrs. Arkwright) was an extraordinarily good bird, and was most unaccountably left out. Pen 516 (Arkwright), large and bony, but dark in foot, and with curved big toes; pen 528 (Hamilton) was fourth-prize at the Palace; pen 536 (Kell) a very good bird; pen 548 (White), a wonderfully broad bird with good feet, but spoilt by his comb. Pen 515 (Drewry), 520 (Kell), 534 (Lingwood), 535 (Baker), 538 (Cresswell), 539 (Denison), 544 (Hemson), were also good.

In Dorking hens there six or seven very good pens. First, a very large and good pair; second, very nice and in capital condition; third, very large, but not over dark in colour. Pen 558 (Bartrum) contained one grand hen, but badly mated; pen 551 (Arkwright) very good; pen 553 (Drewry), cheap at £3 3s.; 566 (Darby), a good pair, and will look much better when their combs are out; 544 (Mozer), good; 560 (Harvey), large, but out of condition. On the whole this was a very good class.

The Rev. E. Bartrum's first and second-prize *pullets* were good birds in fine condition; third, very dark, one a particularly fine bird; fourth, neat, but not large; fifth, a good pen. Mrs. Arkwright's *pullets* were not shown in very fine condition. Pen 580 (Denison), dark and good; 581 (Capple), large and good in shape; pen 576 (Pilkington), good in shape and style.

Old Silver-Gray cocks were a poor class. The first well placed, but a little too dark in hackle; second, rather small, with lopping comb. Pen 588 (Robinson) was white on the thighs, but otherwise a good bird; 589 (Rutledge), good but for white in tail.

In Silver-Gray *cockerels* Mr. Cresswell repeated his Palace victory with a splendid bird; second and third good birds, and well placed. Pen 592 (Watts), smart; 593 (Burnell), very perfect; 594 should have been in the Coloured class; 597 (Newton), large and perfect.

Silver-Gray *hens* and *pullets* were particularly good classes. We liked Mr. Cresswell's unnoticed pen quite as well as his first-prize hens. 609 (Denison), a nice pen, as also 608 (Raines). The cup Silver-Gray *pullets* were pretty birds, but rather pale

in colour and sooty in feet. One of the second-prize *pullets* had a toe nail too many. Third very good in colour, but not large. Pen 610 (Rutledge) were very good, and might well have had a prize.

White Dorkings still keep too yellow. The cup cock was a nice bird, but white in earlobe and minus part of one toe; second, large but yellow. Pen 622 (Fairhurst), good; 624, a grand old bird.

The first-prize *White cockerel* had a good comb, and was nice in colour, but had one spur badly outside. Second, indifferent in comb, and not particularly good in shape. Pen 630 (Hayne) looked as if his foot had had a bad knock, as the latter was quite blue in colour and too tender to stand upon; 631 (Cresswell) had no peak to his comb, otherwise good; 632 (Oliver), good in colour, comb, feet, and shape; 634 (Fairhurst), good colour, but bad comb.

White hens were a small class. First were large square-built birds well ahead; second pen not equal in size. Pen 642 large; 645 (Darby), very good.

The first-prize *White pullets* were very perfect, and the best pair out for some time; the second were good enough to run them closely.

The Dorking Selling classes were a failure. The first cock had lost one toe, but was otherwise good. 662 (Richardson) would have been very good only for his spurs. The first in the hen class were a fair pair of Dark *pullets*.

COCHINS.—Here a great increase has taken place in the number of entries, and they now form almost a show in themselves—317 entries. Buff and Whites were very good, especially the latter. The Partridge we thought poor; and we were very sorry to see the Blacks, which formed such very large classes at the Crystal Palace, omitted entirely from the schedule. It was a mistake: we know of no birds whose progress is watched with greater interest.

Old Buff *cocks* were a fine lot. Here the positions of the first and second-prize Crystal Palace pens were transposed. Mr. Burnell's bird was certainly not quite in such good condition as at the Palace, but he is so superior in almost every essential that we were sorry to see him deposed. Third (Lady Gwydyr), was a good bird. Fourth (Tindal), we think the winner of first prize here last year as a cockerel, has grown a fine bird, a little coarse in comb, and has moulted rather mealy on the wing. 693, fifth (Burnell), good in colour, like almost all Mr. Burnell's birds, but rather ugly in comb.

Cockerels.—First, pen 748 (Lady Gwydyr), contained a huge chicken of immense proportions, that will when fully developed make a grand bird. It was the easiest win in the Show, notwithstanding some excellent birds were to be found in the class. Pen 711 (Percival), the Oxford winner, was second. Pen 724 (Tomlinson), third-prize, splendid in colour but small. 738 (Wiggin), fourth-prize, rather dark in tail, but a good bird. 705 (Lady Gwydyr), fifth, a small lemon-coloured bird. Pen 723, highly commended, belonging to the same exhibitor, we liked much better. Pen 727, highly commended, was pretty but small. Pen 722, highly commended, good in colour, but slightly hooked. Pen 736, highly commended, had some good properties. Pen 746 highly commended (Tomlinson), was a fine bird, magnificent in colour, but showed some white in the earlobe; this must have been the only thing that kept him out of the prize list. Pen 725, highly commended, we did not like; he had more the carriage of a Fantail Pigeon than a Cochin. Next pen, 726, unnoticed, we liked much better. Pen 735 we also thought deserved some notice.

Hens.—Pen 723 (Taylor), first a fine pair well matched; we think we remember them as first and second at Palace. Pen 767 (Procter), second, good. 771 (Cattell), fourth; one hen had an ugly comb, otherwise they would have changed position with the third. 762 (Cattell), fifth, we did not like; one hen was poorly feathered, the other we thought vulturized. 765 (Tomlinson), highly commended, we thought deserved a better position.

Pullets.—817 First (Lady Gwydyr), a charming pair, sound in colour, well matched, good in feather, and worthy of their position. 808 (Crabtree), second; also a nice pair. 798 (Procter), third; tolerably good, but badly matched. With so many fine pens behind them, we think this should have kept them out of the prize list. 782 (Lady Gwydyr), fourth; good. 784 (Taylor), fifth; one pullet had a bad comb, the other we fancied inclined to vulture hocks, but they had some admirable properties. Pen 776, highly commended, a nice pair, but one pullet had a nasty twist in the hackle. 779, highly commended, small but pretty. 780, highly commended, contained one good pullet; had the other been equal to her they would have been among the winners. Pen 812, highly commended, both good birds, but not a match; they were the best pen out of the prize list. Pen 783, highly commended; Pen 811, highly commended; and 806, highly commended, entered at £2 2s., well deserved the distinction. Pen 802, commended, we thought merited highly commended. Pen 803, unnoticed, were a well-matched pair, sound in colour, with several good points; one pullet we fancied

had a little twist in the hackle. 809, commended, should have been entered in the Bantam class.

Partridge.—In old cocks, 830, first (Lacey), a grand bird; 811, second (Taylor), a fine bird, but a little inclined to vulture hocks; 838, third (Tudman), a good bird, a little brown in fluff. 840, highly commended (Lacey), sound in colour throughout; we fancied him better than third. 812 (Stretch), unnoticed, we believe was the first at the Palace.

Cockerels.—851 (Tindal), first, we thought he had very suspicious-looking hocks, but he was a fine bird, and with this exception deserved his position; 858 second (Jones), beautiful in colour, but we did not like his comb; 816 third (Tindal), was also a good-coloured bird, but wanted leg-feathering. 852, highly commended, we thought a pretty chicken. 818, highly commended, did not like his tail. 847 we thought deserved some notice.

Hens.—The winning pen, 867 (Tudman), were fine birds, well pencilled, with good leg-feathering; 868, second (Stretch), big birds, but not so clearly pencilled; 865, third (Taylor), contained one good hen.

The *pullets* we considered a very poor class. Pen 880 (Stretch), first-prize, we thought should have been shown in the class for hens. Pen 879, second (Percival), well grown, but deficient in pencilling. Pen 876, third, good-shaped, with plenty of leg-feathering, but like the second in pencilling. Pen 872, highly commended, well pencilled but small. Pen 835, highly commended, were beautifully marked, but very young; we considered them better than the second and third. 886, highly commended, we should also have placed in the prize list.

Whites.—Pen 899, first (Percival), was a beautiful bird, rather inclined to go yellow. 901, second (Burnell), we did not like; pen 894 (Talbot) we should have placed before him; he was better in comb, and a bigger bird. 903, third (Procter), should then have retained his position, as we preferred him to the second. Pen 905, commended, was a beautiful bird.

Cockerel.—Pen 907 (Burnell) was first, but we liked pen 909 (Williamson) third, better; he had a thorough Cochinchina-shape, and we considered him in almost every respect superior to the first. Pen 917, second, we did not admire, and thought a better might have been found.

Hens.—934, first were a splendid pair, shown in magnificent trim; 932, second, the legs of one of the hens were in bad condition, and very deficient of leg-feathering. 930, third, good pair, well shown. 931, highly commended, deserved a prize. 942, highly commended, we thought contained a hen and a pullet.

Pullets.—956, first were a superb pair; 951, second; 946, third, well deserved their positions: so many good pairs were to be found in this class that the Judge must have had great trouble in making his selection. Pens 953, 954, 942, and 939 struck us as being about the best of the highly commended birds.

MALAYS put in a creditable appearance: they are thought worthy of four classes at Birmingham, and so many chickens come out. The first cock is a grand bird, marvellously strong in limb; second, good, but with a strange-looking hind claw; Mr. Brooke's highly commended bird is the richest in colour in the class. The cup cockerel is a noble bird in carriage and mien, conspicuous for his clean and brilliant orange legs; second, smaller but stylish; a good White, highly commended, but as usual with White Malays, tinged on the wing. In hens the first winner is a veritable cinnamon in colour: second, somewhat darker. There is a Black hen in this class, but unfortunately of no merit. Mr. Sabin's cup pullet is a gem in colour and shape; one of his highly commended birds is also good.

CREVE CŒURS progress in merit, but decidedly not in number; the old and young birds are mixed together, which is not fair to the latter. The first cock deserves his position; he is a superb bird in superb condition, deep-bodied, and lustrous in colour. It seems to be a merit in Crèves that they moult out well; second is also grand in shape and colour, not remarkable for tuft; third, a large bird in frame, with a beautifully round tuft. 1058 (Wood) struck us as being an enormous bird, though deficient in breast.

Hens are a good class, the cup-winners gigantic birds; one of them has too much white on the tuft. Second very good too, but not so full-breasted as some other birds in the class; third are very black in tuft for old birds, and have handsome beards. Mr. Crabtree's pen are as fine as any in the class, but white in their tufts and scaliness on the legs of one must have thrown them out. Mr. Cutlack's pen are well shown, and deserve their high commendation.

HOUDANS are divided into four classes, and good they all are. The first cock is a tall bird, a thorough French Houdan in look, his only blemish being some rudimentary feathers on his legs; the second is well-marked and large, but his tuft poor, and feathers appear on his legs too. We should have put Mr. Quibell's highly commended bird higher; he is rather light in colour, but sprightly for his age, and massive.

The cup cockerel is a typical bird in every point, with noble carriage, full breast, and perfect feet; second, good all round,

save an inclination to knock-knees. 1103 (Dring), a most promising cockerel. The first-prize pen in the class for hens contains one magnificent bird; the colour of both is beautiful for adult birds, and their feet white and good. The second are as large, but a little too light.

The first *pullets* are very large, but too dark in plumage and feet, and one with a poor tuft; the second less, but a beautiful match, and perfection in colour. 1127 (Copplestone), good.

POLISH.—We regret to see all the varieties of this breed so much in the hands of one or two exhibitors. All four prizes for White-crested Blacks go deservedly to Mr. Shaw; his first-prize cock is lovely in colour and in shape of crest. Mr. Unsworth's bird has a very large though not very shapely crest. The first-prize Golden cock rightly wins from the immense size of his tuft and his robust appearance. He is evidently an old bird and somewhat too light in tail. Second, a handsome bird, but not so rich in breast-colouring as the first, and with a smaller crest.

SPANISH.—The class for old cocks was a small one—nine entries. Pen 1138, first, has the largest lobe, but he was very coarse and ugly in comb. Pen 1140, second (Beldon), the Palace winner, we liked much better; he was not so big in the lobe but the white was of much better quality, and he had a good comb for an old bird. Pen 1144, third, was another coarse bird; we liked pen 1142, highly commended, better.

The *Cockerel* class mustered twenty-six entries. Pen 1167, first-prize (Miss Brown), was a good selection: this bird was second at the Palace, the first-prize Palace bird we could not find. Pen 1165, second, was a coarse bird. Pen 1172, third, was much worse, he had a short lobe, and one side was longer than the other. Pen 1160, fourth (Jones), was a neat bird, with a face of good quality: we should have placed him second, with pens 1152 and 1150 for third and fourth. Pen 1163, unnoticed, was a superior bird, but out of condition.

In the *Hens* some fine birds were to be found, those in the best condition winning, several good pens being passed over through not being forward enough.

Pullets were not a good class. The first-prize pen, 1182, had nice faces, the others will improve as they get older. We thought all the awards correct.

In consequence of pressure of time we are compelled to postpone our report of some of the classes until next week.

PIGEONS.

From whatever cause it may arise, one thing is certain—the Pigeon Show at Birmingham is losing its prestige, the entries this year in point of numbers scarcely coming-up to a good provincial show. The prizes are good, and the classification extended, and yet the birds do not come. Why is it? Is it because the birds in most classes are shown in pairs? or is it the wretched little pens in which the majority are exhibited? We know not; but the fact remains that in some classes where first and second prizes of £2 and £1 are offered two entries appear, while three and four are several times met with. We regret this state of things, because we remember the time when a high commendation was thought as much of at Birmingham as a prize at many other shows.

Carriers.—Black cocks (old) were a good lot, though few; but we thought one eye of the first-prize taker gone a little too far; second, a good sound bird.

Black Hens.—First, a splendid bird.

Dun Cocks.—First, a good-wattled bird, rather paler in colour than we like.

Dun Hens.—First, a good bird with good box beak; others rightly placed.

Carriers, Any other colour (two entries).—Very bad Blues, but good birds in other respects.

Black Carriers hatched in 1874.—Some grand young birds were shown in this class. The best Carriers did not take the prizes, and a question arises which it would be well to ventilate and settle if possible—viz., Is a bird which has a patch of white on the vent and belly, and a fringe of the same colour at the knee-joint, a black bird? We do not express an opinion at present, but hope to have the views of some of our eminent breeders on the subject.

Young Carriers, Any other colour.—First, a grand pair of birds; second, we cannot express an opinion on, as only one bird was in the pen at the time of our visit.

Pouters, Red or Yellow cocks.—First, good colour, with large crop, but a coarse heavy bird, not our notion of an elegant Pouter; a good Yellow highly commended.

Red or Yellow Hens.—First, a good Red; second, a poor Yellow.

Blue Cocks.—First, a magnificent bird; third, a good raking bird; second, we did not like.

Blue Hens.—We preferred second to first.

White cocks were a good class, but we should have placed Mrs. Ladd's second first. In hens again we thought Mrs. Ladd's elegant bird entitled to first honours.

Almond Tamblers were a fair class, and we considered the prizes rightly placed, but should like to see a little more head

properties. The feather in first and second-prizes was good, but skulls not large.

In Short-faced Tumblers, Other colour, we thought the first coarse, and preferred the second Reds.

Long-muffed and other Flying Tumblers were pretty and interesting classes. Birds of almost every feather were shown. These birds are great favourites with Birmingham fanciers.

In *Balds* Mr. Woodhouse was first with a pair of neat birds well cut.

In *Beards*, first and cup went to a fair pair of Blacks, which were recently picked-out at Stevens's sale for a few shillings; Mr. South second with a really nice pair of birds.

Barbs (old birds), except first-prize, were not a grand lot. The same may be said of those bred in 1874, except cock in first prize, which is a good bird.

Trumpeters.—Fulton first and second with Blacks; Mr. Shaw third with a very promising pair of young Whites.

Runts.—Mr. Green unapproachable.

Fantails, White.—A good class, but in the wretchedly small pens in which they were shown we could not attempt to pick-out the best, and do not envy the Judge his task.

Archangels.—Mr. Wilkinson took the prizes with two pairs of good birds.

Nuns require handling before expressing an opinion thereon.

Swallows were, as is usual at Birmingham, a good class.

In *Jacobins*, Red or Yellow, First and cup went to a grand pair of Reds; second, Yellow, cock good, but a poor hen.

Jacobins, Any other colour.—First, very fair Blacks.

Turbits, Red or Yellow.—First-prize Reds wanting colour; Cresswell's highly-commended Yellows rather large, but good.

Turbits, Other colour.—Mr. South first with very neat Blues; second, Blacks, not good colour.

Owls, Foreign.—Mr. Sparrow first and very highly commended with good, strong, healthy-looking birds.

Owls, English.—We liked Mr. Shaw's second Silvers although very young. Mr. Buns sent two pairs of good birds, which were too late for competition.

Dragoons (as in catalogue).—Blues were a very good class, and we considered the prizes rightly placed, most of the winners, although judged by a Birmingham Judge, being of the so-called London type.

Reds or Yellows also very good, Mr. Graham still holding his own.

In Silvers we liked the first-prize birds very much; also Mr. Tegetmeier's highly-commended birds, which we would have placed higher in the list.

Whites were a good class.

Antwerps, Silver Duns.—A grand lot, most of the birds of a well-marked type, but we should have placed the second birds first.

In the Red Chequers Mr. Gamon was first, second, and third with grand birds. We fancied we recognised an old acquaintance in the cock in the second pen. Some beautifully-marked birds were shown in Blue Chequers.

In the class for Homing birds we considered most of them too stout, and too much like Short-faced Antwerps. Mr. Sparrow's second-prize pen were a good lot.

The other new or distinct variety class is always strong at Birmingham. First, a moderate pair of Pire Pigeons; next first, good plain Ice; two seconds to Satinets and Turbeteens; thirds, Whiskered Owls and Frillbacks, with many other pretty and interesting birds.

BRAMA POOTRA (Dark).—Cocks.—Cup, T. F. Ansell, Cowley Mount, St. Helens. 2, R. P. Percival, Northenden, Manchester. 3, H. Lacy, Hebbden Bridge. 4, Horace Lingwood, Creeting Needham Market. *vhs*, F. Bennett, Shifnal; F. J. Cotterell, Beechfield, Birmingham. *hc*, F. J. Cotterell; J. Watts, King's Heath, Birmingham; L. Wright, London; S. B. Gwynn, Wem, Salop. *c*, Lady Gwydyr, Ipswich; H. Lacy; Rev. G. W. Cox, Stratford-on-Avon.

BRAMA POOTRA (Dark).—Cockerels.—Cup, R. P. Percival. 2 and 3, T. F. Ansell. 4, Hon. Miss D. Pennant, Bangor. 5, Horace Lingwood. *vhs*, Hon. Miss D. Pennant (2); J. F. Smith, Sheffield; E. Ryder, Manchester; W. B. Elches, Whitechurch. *hc*, Lady Gwydyr; J. H. Jones, Handforth, Manchester; E. T. Pickmere, Castle Bromwich, Birmingham; E. Ryder; W. Birch, Barnacle (2); T. F. Ansell; J. Lyon; Hon. Miss D. Pennant. *c*, J. Holmes, Whitecoats, Chesterfield; Hon. Miss D. Pennant; W. Barvey, Sheffield; Hon. Mrs. A. B. Hamilton, Ridgmont, Woburn.

BRAMA POOTRA (Dark).—Hens.—Cup, T. F. Ansell. 2, W. H. Crabtree, Levenshulme, Manchester. 3, Horace Lingwood. 4, L. Wright. *vhs*, R. P. Percival. *hc*, Mrs. Arkwright, Sutton Scarsdale, Chesterfield; Hon. Miss D. Pennant; H. B. Morrell, Cap Mawr, Clynio (2). *c*, T. F. Ansell; J. Watts; W. Hargreaves, Hutton Top, Bampton; Mrs. Arkwright.

BRAMA POOTRA (Light).—Pullets.—Cup, M. Leno, Markyate Street, Donstable. 2, Newham & Manby, Wolverhampton. 3, J. Watts. 4, J. Walker, Rochdale. 5, Hon. Mrs. A. B. Hamilton. *hc*, Hon. Miss D. Pennant (2); E. Frichard, Tettenhall, Wolverhampton (4); J. Holmes; J. F. Smith; H. Tomlinson, Birmingham; J. Lyon; Horace Lingwood; Lady Gwydyr; R. B. Wood, Uttoxeter (2); T. F. Ansell; H. B. Morrell. *c*, R. P. Percival; J. W. Morrison, Kirkcaldy; E. Pritchard.

BRAMA POOTRA (Light).—Cocks.—Cup, J. Turner, Bath. 2, T. Webb, Sutton Coldfield, Birmingham. 3, A. O. Worthington, Burton-on-Trent. 4, F. J. Cotterell. *hc*, Mrs. F. Chesire, Acton. *c*, Mrs. D. T. Turner, Avon, Ringwood; P. Haines, Fagrove, Diss (2).

BRAMA POOTRA (Light).—Cockerels.—1 and 2, Horace Lingwood. 3, P. Haines. 4, W. H. Haseler, Bawdsworth. 5, Mrs. Williamson, Leicester. *c*, F. Bennett, Shifnal; Salop; F. J. Cotterell; J. Long, Bromley Common; T. A. Dean, Marden, Hereford; W. T. Storer, Brewood.

BRAMA POOTRA (Light).—Hens.—Cup, Mrs. Williamson. 2, F. J. Cotterell. 3, R. P. Percival. *hc*, Mrs. D. T. Turner. *c*, Mrs. J. T. Holmes, Bath; F. J. Cotterell.

BRAMA POOTRA (Light).—Pullets.—1, Mrs. Williamson. 2, P. Haines. 3, J.

Mitchell, Moseley, Birmingham. 4, M. Leno, Markyate Street, Donstable. 5, W. Thors, Derby. *hc*, J. Bloodworth, Cheltenham; T. A. Dean, Marden, Hereford; Mrs. Williamson; F. J. Cotterell; R. Bird, Fulham, London; W. Thors. W. H. Haseler; J. H. Butler, Erdington, Birmingham; J. Mitchell (2); J. Watts, King's Heath, Birmingham. *c*, Mrs. J. T. Holmes; Mrs. D. T. Turner; T. A. Dean; F. J. Cotterell.

BRAMA POOTRA (Light or Dark).—Cocks.—Price not to exceed 40s.—1, R. P. Percival. 2, H. J. Storer. 3, W. Hargreaves, *hc*, H. B. Morrell; A. Robertson; J. Watts (2); W. Thors; J. Holmes; R. Smalley, Lancaster; G. F. Whithead, Birmingham; E. Sherrin, Gowerly, Hereford; W. Storer, Brewood; W. Birch, Barnacle, Coventry. *c*, W. Thors; E. Kendrick, jun., Shifnal; Newham & Manby, Wolverhampton; F. Bennett, Shifnal, Salop; M. Leno; J. Watts.

BRAMA POOTRA (Light or Dark).—Hens or Pullets.—Price not to exceed 50s.—1, E. Kendrick, jun. 2, E. Pritchard. 3, W. Hargreaves, *hc*, R. P. Percival; E. Kendrick, jun.; W. Hargreaves; W. H. Crabtree; H. M. Maynard, Holme Wood, Ryde, Isle of Wight (2); W. T. Storer; E. Pritchard; J. Bloodworth; H. Yardley, Birmingham; H. Wilkinson, Kirby, Skipton; M. Leno (2); H. B. Morrell (2). *c*, G. White, Mauney, Sutton Coldfield, Birmingham; G. F. Whithead; E. Ryder, Hyde, Manchester; Newham & Manby; W. Hargreaves.

DOAKINGS (Coloured, except Silver-Gray).—Cock.—Cup, Mrs. Arkwright. 2, J. Walker. 3, A. Darby, Shrewsbury. *hc*, T. C. Burnell, Mickledever; J. Copple, Prescot.

DOAKINGS (Coloured, except Silver-Gray).—Cockerels.—1, T. C. Burnell. 2, Mrs. T. W. L. Hind, Kendal. 3, Rev. E. Bartram, Berkhampstead. 4, L. Pilkington, Gloucester, Liverpool. 5, J. White, Warlaby, Northampton. *c*, T. E. Kell, Wetherby; Mrs. Bayard, Gwynedd, Merioneth.

DOAKINGS (Coloured, except Silver-Gray).—Hens.—Cup and *c*, S. Lang, West-hy-on-Trym, Bristol. 2, T. C. Burnell. 3, J. Copple. *hc*, Rev. E. Bartram; W. H. Denison, Woburn Sands.

DOAKINGS (Coloured, except Silver-Gray).—Pullets.—1 and 2, Rev. E. Bartram, Berkhampstead. 3, T. C. Burnell. 4, J. White, Warlaby. 5, T. E. Kell.

DOAKINGS (Silver-Gray).—Cocks.—1, W. H. Denison. 2, Rev. J. F. Newton, Killybeg, Londonderry. 3, J. White, Warlaby.

DOAKINGS (Silver-Gray).—Cockerels.—Cup, O. E. Cresswell, Bagshot. 2, I. J. Moser, Kendal. 3, W. W. Rutledge, Storthed, Kendal. *c*, T. C. Burnell.

DOAKINGS (Silver-Gray).—Hens.—1, O. E. Cresswell. 2, W. H. Denison. *c*, H. Beal, Wexham, Slough.

DOAKINGS (Silver-Gray).—Pullets.—Cup, R. Smalley, Lancaster. 2, W. H. Denison. 3, O. E. Cresswell. *hc*, H. Beal.

DOAKINGS (White).—Cocks.—Cup, S. Burn, Whitley. 2, Miss Fairhurst, Wood-lake, Ormskirk. 3, J. E. Pagram. *c*, O. E. Cresswell; M. Fairhurst, Mickledever. *c*, O. E. Cresswell.

DOAKINGS (White).—Cockerels.—1, J. E. Pagram. 2, T. C. Burnell, Mickledever. *c*, O. E. Cresswell.

DOAKINGS (White).—Hens.—1, Mrs. Hayne, Fordington. 2, O. E. Cresswell. *hc*, Mrs. A. Tindal, Aylesbury; J. Robinson. *c*, A. Darby, Little Ness, Shrewsbury.

DOAKINGS (White).—Pullets.—Cup, J. Robinson. 2, Mrs. Hayne. *hc*, O. E. Cresswell.

DOAKINGS (Any colour).—1, Miss J. Milward, Newton St. Loe. 2, I. J. Moser. 3, R. W. Richardson, Beverley. *hc*, E. Shaw; G. Heeley, Birmingham. *c*, W. Badger, Little Ness, Baschurch, Shrewsbury.

DOAKINGS (Any colour).—Hens or Pullets.—1, R. Smalley. 2, H. Yardley. 3, R. W. Richardson, Beverley. *c*, W. Badger; G. Heeley, Birmingham (2).

COCHIN-CHINA (Cinnamon and Buff).—Cocks.—1, J. Walker, Rochdale. 2 and 3, W. A. Burnell. 4, Lady Gwydyr, Ipswich. 5, Mrs. A. Tindal, Aylesbury. *hc*, B. Tomlinson; D. Young, Leamington; J. Cattell, Birmingham; W. A. Taylor, Manchester; Mrs. A. Tindal. *c*, S. B. Gwynn, Wem, Salop; H. Tomlinson, Birmingham.

COCHIN-CHINA (Cinnamon and Buff).—Cockerels.—Cup and 5, Lady Gwydyr. 2, R. P. Percival. 3, H. B. Tomlinson. 4, Miss Wiggins, Harborne, Birmingham. *hc*, J. Cattell (2); B. Tomlinson (2); G. H. Proctor, Durham; C. Bloodworth, Cheltenham; Lady Gwydyr; H. Slutt, Stombridge; W. P. Ryland, Erdington, Birmingham; W. H. Crabtree; W. A. Taylor; W. A. Burnell. *c*, Mrs. A. Tindal; H. Hargreaves, Bawdsworth, Leeds; J. Cattell; H. Tomlinson (2); Miss Wiggins, Birmingham; J. Benton, Erdington, Birmingham; J. Geo. Fellow, Madley, Newcastle; H. J. Gunnell, Milton; H. A. Wiggins; W. A. Burnell; A. Darby.

COCHIN-CHINA (Cinnamon and Buff).—Hens.—Cup, W. A. Taylor. 2, G. H. Proctor, Durham. 3, Henry Lingwood. 4 and 5, J. Cattell. *hc*, H. A. Wiggins; H. Tomlinson; W. A. Taylor.

COCHIN-CHINA (Cinnamon and Buff).—Pullets.—1 and 4, Lady Gwydyr. 2, W. H. Crabtree. 3, G. H. Proctor. 5, W. A. Taylor. *hc*, Mrs. A. Tindal (2); C. Bloodworth; J. Cattell; Mrs. E. Alsopp; R. P. Percival; W. A. Burnell; A. D. Leatherhead; J. Y. Madley, Birmingham; J. Watts, Birmingham; J. Benton, Birmingham; H. Tomlinson; H. Lingwood; W. H. Crabtree. *c*, D. Young, Leamington; Miss Wiggins; W. H. Crabtree; J. Benton; W. P. Ryland, Birmingham (2); H. Slutt; J. Rook, Lichfield; H. A. Wiggins, Birmingham; A. D.; J. Y. Madley; W. A. Burnell.

COCHIN-CHINA (Brown and Partridge).—Cocks.—Cup, H. Lacy, Hebbden Bridge. 2, W. A. Taylor. 3, E. Tudman, Whitechurch, Bath. 4, F. Bennett, Shifnal, Salop. 5, T. Stretch, Ormskirk. *hc*, Lady Gwydyr.

COCHIN-CHINA (Brown and Partridge-feathered).—Cockerels.—1 and 3, Mrs. A. Tindal. 2, R. Jones, Neath. *hc*, E. Tudman; W. A. Taylor; W. H. Crabtree. 4, T. Sheppard, Humberstone, Leicester; J. K. Fowler, Aylesbury. *c*, Hon. Mrs. Suggen, Wells (3); J. H. Jones, Handforth, Manchester.

COCHIN-CHINA (Brown and Partridge-feathered).—Hens.—Cup, E. Tudman. 2, T. Stretch, Ormskirk. 3, W. A. Taylor. *hc*, Mrs. J. Betts, Edgaston, Birmingham; E. Tudman. *c*, W. A. Taylor.

COCHIN-CHINA (Brown and Partridge-feathered).—Pullets.—1, T. Stretch. 2, R. P. Percival. 3, J. H. Jones. *hc*, E. Tudman (2); J. K. Fowler; Mrs. A. Tindal; Hon. Mrs. Suggen (2); W. A. Taylor. *c*, G. Lamb, Compton, Wolverhampton; T. Sheppard, Humberstone; Hon. Mrs. Suggen; A. J. E. Swindell, Heathlands, Stourbridge; G. Shrimpton, Leighton Buzzard.

COCHIN-CHINA (White).—Cocks.—Cup, R. P. Percival. 2, W. A. Burnell. 3, G. H. Proctor. *hc*, Capt. G. Talbot, Ednbridge. *c*, R. Chase, Birmingham; Capt. G. Talbot.

COCHIN-CHINA (White).—Cockerels.—1 and 2, W. A. Burnell. 3, Mrs. Williamson. *hc*, G. H. Proctor; W. A. Burnell. *c*, J. Turner, R. Chase.

COCHIN-CHINA (White).—Hens.—1 and 3, Capt. G. Talbot. 2, W. Whitworth, jun., Longsight, Manchester. *hc*, W. A. Burnell; R. S. S. Woodgate, Penbury, Tunbridge Wells; R. Chase. *c*, Mrs. H. Shutt.

COCHIN-CHINA (White).—Pullets.—Cup and 3, Capt. G. Talbot. 2, W. A. Burnell. *hc*, Mrs. Williamson. *hc*, R. Chase; W. A. Burnell; Mrs. Williamson; J. K. Fowler, Bath; G. H. Proctor; E. Tudman; W. A. Burnell; R. S. S. Woodgate; R. S. S. Woodgate; R. Chase; W. A. Burnell; W. Whitworth.

COCHIN-CHINA (Any colour).—Cocks.—Price not to exceed 4s.—1, C. Sidgwick. 2, W. A. Taylor. 3, W. Whitworth, jun. *c*, W. A. Burnell; C. Sidgwick.

COCHIN-CHINA (Any colour).—Hens or Pullets.—Price not to exceed 60s.—1, D. Young, Leamington. 2, H. Tomlinson. 3, W. A. Taylor. *hc*, H. Yardley. *c*, J. Cattell; C. Sidgwick; H. Yardley; R. P. Percival.

MALAY. —Cocks.—1, J. Hutton, Warrminster. 2, W. Lort, King's Norton. *hc*, R. P. Percival.

MALAY. —Cockerels.—Cup, J. S. Rooth, Chesterfield. 2, G. Burnell, Rugeley. *hc*, J. G. Fable, Jersey; J. Hutton.

MALAY. —Hens.—1, J. Hutton. 2, W. B. Payne, Shrewsbury. *hc*, F. Sabia, Birmingham; Rev. A. G. Brooke; E. Walton, Horncliffe, Rawlinsall; W. E. Payne.

MALAY. —Pullets.—Cup, F. Sabia. 2, G. Burnell. *hc*, F. Sabia (2). *c*, J. F. Walton.

CREVE-CEUR. —Cocks.—1 and 2, W. H. Crabtree. 3, R. B. Wood. *hc*, A. F. Hunt, Derby.

CREVE-CEUR. —Hens or Pullets.—Cup and 2, R. B. Wood, Uttoxeter. 3, W.

R. Park, Abbotsmeadow, Melrose. *hc*, W. Cutlack, jun., Littleport, Ely; W. H. Crabtree.

HOUDAN.—*Cocks*.—1, W. Dring, Faversham. 2, R. B. Wood. *hc*, W. H. Coplestone, Lostwithiel (2); G. D. Harrison, Grange-over-Sands, Carnforth; R. B. Wood; W. O. Quibell, Newark.

HOUDAN.—*Cockerels*.—1, G. W. Hibbert, Godley, Manchester. 2, R. B. Wood. *hc*, S. Shaw, Stainland, Halifax; W. O. Quibell (2); R. B. Wood; C. Morris, Chester; W. Dring.

HOUDAN.—*Hens*.—1, D. Lane, Hardwick. 2, W. Dring.

HOUDAN.—*Pullets*.—1, W. Dring. 2, J. K. Fowler. *hc*, W. H. Coplestone; R. B. Wood; W. O. Quibell; W. Whitworth, *jao*.

SPANISH.—*Cocks*.—*cup*, H. Wilkinson, Easby, Skipton. 1, H. Beldon, Bingley. 2, J. Leeming, Broughton, Preston. *hc*, E. Jones, Clifton, Bristol; J. T. Parker, Northampton.

SPANISH.—*Cockerels*.—1, Miss E. Brown, Charlefield Green, Charl. 2, J. Leeming, Broughton, Preston. 3, J. R. Rodbar, Wroughton, Bristol. 4, E. Jones. *hc*, J. K. Rodbar (3); H. Beldon; J. Walker, Standeford, Wolverhampton.

SPANISH.—*Hens*.—*Cup*, E. Jackson, Finchfield, Wolverhampton. 2, G. K. Chilcott, Fairlawn, Bristol. 3, J. T. Parker, Northampton. *hc*, Mrs. E. Allsopp.

SPANISH.—*Pullets*.—1, J. Walker. 2, Mrs. E. Allsopp. 3, G. K. Chilcott. 4, J. Leeming. *hc*, J. A. H. H. St. voley, Driffield.

HAMABURGERS (Black).—*Cocks*.—*Cup*, J. Long. 2, Duke of Sutherland, Stoke-on-Trent. 3, J. Robinson. *hc*, H. Beldon; T. W. Holmes (2); J. M. Kilvert; H. Robinson, Baldon.

HAMABURGERS (Black).—*Hens or Pullets*.—*Cup*, Rev. W. Serjeantson, Acton, Burnell Rectory, Shrewsbury. 2, S. Shaw. 3, F. W. Holmes. *hc*, H. Beldon; Rev. W. Serjeantson; R. Gladstone, jun., Liverpool; J. M. Kilvert; J. Preston, Aldon. *c*, Rev. W. Serjeantson.

HAMABURGERS (Golden-pencilled).—*Cocks*.—*Cup*, J. Walker, Birstwith, Ripley. 1, H. Beldon. 2, G. & J. Duckworth, Church. *hc*, J. Robinson, Otley; G. & J. Duckworth; H. Beldon; J. Long.

HAMABURGERS (Silver-pencilled).—*Cocks*.—1 and 3, H. Beldon. 2, Duke of Sutherland. *hc*, W. Meanley, Haudsworth; J. Robinson.

HAMABURGERS (Golden-pencilled).—*Hens or Pullets*.—1, G. & J. Duckworth. 2, Miss Rolls, Monmouth. 3, H. Beldon. *hc*, W. Dixon, jun.; Miss Rolls; C. B. Baworth, Chester.

HAMABURGERS (Silver-pencilled).—*Hens or Pullets*.—*Cup*, Duke of Sutherland. 2, W. Meanley. 3, H. Beldon. *hc*, J. Preston (2).

HAMABURGERS (Golden-spangled).—*Cocks*.—*Cup*, H. Beldon. 2, J. Long. 3, G. & J. Duckworth. *hc*, Miss Rolls; T. Dean, Keighley; J. Buckley, Taunton, Ashton-under-Lyne.

HAMABURGERS (Silver-spangled).—*Cocks*.—1 and 2, Ashton & Booth, Broadbottom, Mottram. 3, Duke of Sutherland. 4, J. Robinson. *hc*, J. Fielding (2); H. Beldon; J. Robinson.

HAMABURGERS (Golden-spangled).—*Hens or Pullets*.—1, J. Buckley. 2, W. A. Hyde, Hurst, Ashton-under-Lyne. 3, T. Dean. *hc*, G. & J. Duckworth (2); H. Beldon; Duke of Sutherland.

HAMABURGERS (Silver-spangled).—*Hens or Pullets*.—*Cup*, G. C. Holt, Lawton, Cheshire. 2, J. Robinson, Otley. 3, Miss E. Browne. 4, H. Beldon. *hc*, Duke of Sutherland; J. Fielding, Newchurch; Ashton & Booth; H. Robinson, Baldon, Shipley.

POLISH (Black, with White Crests).—*Cocks*.—1 and 2, S. Shaw. *hc*, A. Darby; P. Unsworth.

POLISH (Black, with White Crests).—*Hens or Pullets*.—1 and 2, S. Shaw. *hc*, A. Darby; P. Unsworth.

POLISH (Golden).—*Cocks*.—1, H. Beldon. 2, P. Unsworth. *hc*, W. A. Taylor, Manchester.

POLISH (Golden).—*Hens or Pullets*.—1, H. Beldon. 2, W. A. Taylor. *hc*, P. Unsworth; T. Webb.

POLISH (Silver).—*Cocks*.—*Cup*, H. Beldon. 2, G. C. Adkins. *hc*, G. C. Adkins; W. A. Taylor.

POLISH (Silver).—*Hens or Pullets*.—*Cup*, 2, and *phc*, G. C. Adkins. *hc*, H. Beldon.

ANY OTHER VARIETY—J. Aspdon & Bamber, Church. 2, E. Walton, Rawten-stall. 3, H. Feast, Swansea. *hc*, Miss A. Monckton, Stretton; Rev. N. J. Ridley, Newbury.

MALAY, CREVE-CEUR, HOUDAN, SPANISH, HAMABURGERS, POLISH, GAME, AND OTHER VARIETIES NOT ELSEWHERE NAMED.—*Cocks*.—1, C. Morris. 2, G. F. Whitehouse. 3, W. Dring.

MALAY, CREVE-CEUR, HOUDAN, SPANISH, HAMABURGERS, POLISH, GAME, AND OTHER VARIETIES NOT ELSEWHERE NAMED.—*Hens or Pullets*.—1, C. Morris. 2, H. M. Maynard. 3, G. F. Whitehouse. *hc*, Miss E. Browne.

GAME (Black-breasted Reds).—*Cocks*.—1, Hon. and Rev. F. G. Dutton, Bihory Vicarage, Fairfield. 2, S. Matthew, Stowmarket. 3, G. E. Peach, Shiffall. 4, E. Aykroyd, Eccleshill, Leeds. *hc*, J. Forsyth, Wolverhampton; W. C. Phillips, Worcester.

GAME (Black-breasted Reds).—*Cockerels*.—*Cup*, S. Matthew. 2 and *c*, D. Harley, Edinburgh. 3 and 4, E. A. Beck, Welshpool. 5, J. Hird, Dubh. Bingley.

GAME (Black-breasted Reds).—*Hens*.—*Cup*, S. Matthew. 2, G. Newgate. 3, V. Johnson. 4, J. Goodwin, Liverpool. *hc*, T. P. Lyon, Liverpool.

GAME (Black-breasted Reds).—*Pullets*.—1, S. Matthew. 2, 3, and 4, W. J. Pope, Biggleswade. 5, Rev. T. O'Grady, Ashbourne. *hc*, T. P. Lyon; C. R. Chadwick, Prestwich, Manchester; W. E. Oakley, Atherstone (2); W. J. Pope; J. Fletcher, Stoneclogh, Manchester; D. Harley.

GAME (Brown and other Reds, except Black-breasted).—*Cocks*.—*Cup*, C. W. Brierley. 2, S. Matthew. 3, T. P. Lyon. 4, W. Saunders, Hedsford. *hc*, F. Warde, West Farleigh, Maidstone; H. E. Martin, Southport, Fakenham; T. Mason, Lancaster. *c*, J. Palmer, Wednesbury; J. Fortune, Keighley.

GAME (Brown-breasted Reds).—*Cockerels*.—1 and 3, T. Burgess, Burleydam, Whitechurch, Salop. 2, H. E. Martin. 4, C. H. Wolf, Hale, Altrincham. 5 and *c*, T. P. Lyon. *hc*, D. Harley; H. Beldon; W. Dunning, Newport, Salop; T. Burgess, Burleydam, Whitechurch, Salop; J. Platt, Sarnham, Winesford; C. W. Brierley.

GAME (Brown-breasted Reds).—*Hens*.—1, Miss Osborn, Yarnton, Oxford. 2, D. Harley. 3, W. C. Phillips. 4, J. Wood. *hc*, C. W. Brierley.

GAME (Brown-breasted Reds).—*Pullets*.—*Cup*, C. W. Brierley. 2, C. H. Wolff. 3, G. F. Ward, Wrentham. 4, S. Matthew, Stowmarket. *hc*, W. C. Phillips, Worcester; T. P. Lyon; J. P. Gardner, Rugeley. *c*, W. Dunning, Newport, Salop; T. Burgess, Burleydam, Whitechurch, Salop (2); G. F. Ward; G. E. Martin, Walsby, Walsby, Walsby, Walsby.

GAME (Duckwings, and other Greys and Blues).—*Cocks*.—*Cup*, E. Winwood, Worcester. 2, W. C. Phillips, Worcester. 3, E. C. Gilbert, Peckridge. *c*, Col. V. Blackburne, Leamington; J. Goodwin, Liverpool; J. Mason, St. John's, Worcester; H. C. & W. J. Mason, Birstal, Leeds.

GAME (Duckwings, and other Greys and Blues).—*Cockerels*.—1, E. Winwood. 2, D. Harley, Edinburgh. 3, Hon. and Rev. F. G. Dutton, Fairfield. *hc*, S. Matthew; J. Mason. *c*, Bell & Glassbrook, Burton-on-Trent.

GAME (Duckwings, and other Greys and Blues).—*Hens*.—1, Bell & Glassbrook. 2, S. Matthew. 3, F. Sales, Crowle, Doncaster. *c*, H. C. & W. J. Mason.

GAME (Duckwings, and other Greys and Blues).—*Pullets*.—*Cup*, E. Winwood. 2, D. W. J. Thomas. 3, J. Mason. *hc*, J. Goodwin. *c*, J. Fletcher.

GAME (Black and Brassy-winged, except Greys).—*Cocks*.—1 and 2, C. F. Montresor, Slough.

GAME (Black and Brassy-winged, except Greys).—*Hens or Pullets*.—*Cup*, G. F. Webb, Lichfield. 2, E. Kendrick, jun., Lichfield. *hc*, and *c*, Capt. W. G. Webb, Lichfield.

GAME (White and Piles).—*Cocks*.—*Cup*, C. W. Brierley. 2, J. F. Walton. *hc*, W. Van Wart, Birmingham; Bell & Glassbrook. *c*, Hall & Ashmore, Brimington, Chesterfield; J. Frith, Chatsworth, Bakewell.

GAME (White and Piles).—*Hens or Pullets*.—1, C. W. Brierley. 2, J. Goodwin. *hc*, T. Ludlow, King's Norton, Birmingham; J. Frith, Chatsworth, Bakewell. *c*, J. F. Walton, Horncliffe; W. Van Wart.

BANTAMS (Gold or Silver-laced).—*Cup*, M. Leno. 2, Rev. J. Bill, Hawkstone, Shrewsbury. *hc*, A. Robertson, Kilmarnock; M. Leno.

BANTAMS (White, Clean-legged).—1, T. Cropper, Bacup. 2, J. Bloodworth, Cheltenham. *hc*, Mrs. E. M. Foster, Cheltenham.

BANTAMS (Black, Clean-legged).—1, Mrs. A. Tindal, Aylesbury. 2, E. Cambridge, Horfield, Bristol. *hc*, J. Walker, Rotherdale; N. Cook, Chobhant, Manchester.

BANTAMS (Any other variety except Game).—1, H. Yardley. 2, R. S. S. Woodgate.

GAME BANTAMS (Black-breasted Reds).—1, W. F. Addie, Preston. 2, W. F. Entwistle, Bradford. 3, J. Smith, Southwell. 4, G. Hall, Kendal. *hc*, J. Fletcher.

GAME BANTAMS (Brown and other Reds, except Black-breasted).—*Cup*, J. Fletcher. 2 and *c*, W. F. Entwistle. *hc*, J. Wood, Wigau.

GAME BANTAMS (Any other variety).—1, J. Frith. 2, W. F. Entwistle. *hc*, Shumack & Duff, Southwell; J. Fletcher; Jacques & Knighton, Chesterfield.

GAME BANTAMS (Black-breasted, and other Reds).—*Cocks*.—1 and 2, W. F. Addie. 3, J. Fletcher. 4, G. Hall. *hc*, W. F. Addie; W. F. Entwistle. *c*, W. F. Entwistle; G. Maples, jun., Wavertree, Liverpool; A. Ashley.

GAME BANTAMS (Any other variety).—*Cocks*.—*Cup*, J. Fletcher. 2, R. Brownlie, Townsland, Kirkcaldy. 3, Shumack & Duff. *hc*, G. Hall; A. Ashley. *c*, P. Unsworth; W. F. Entwistle.

BANTAMS (Selling Class).—1 and 2, G. Hall. 3, A. Ashley. *c*, M. Leno.

DOCKAS (White Aylesbury).—*Cup* and 4, J. Walker. 2 and 3, J. K. Fowler. *hc*, Mrs. A. Tindal. A. Robertson, Kilmarnock; J. K. Fowler.

DOCKAS (Golden).—*Cup* and 4, R. Gladstone, jun. 2, A. Woods. 3, J. Walker. 4, T. Wakelind. *hc*, J. K. Fowler; R. Gladstone, jun.; A. Woods, Sefton, Liverpool (2); Rev. E. J. Howman, Nuncaton; T. Statter, Manchester (4); S. Shaw, Stainland, Halifax (2); J. Walker; W. Meanley, Haudsworth, Birmingham; W. Stephens, Gloucester; W. B. Eches, Whitechurch, Salop.

DOCKAS OR ORNAMENTAL WATERFOWL (Black East Indian).—1 and 3, G. S. Sainsbury, Devizes. 2 and 4, J. W. Kelleway, Isle of Wight. *hc*, G. S. Sainsbury (2); J. W. Kelleway; S. Burn; W. B. Eches; J. M. Kilvert, Wem, Salop.

DOCKAS (Black).—*Cup*, J. Walker. 2, M. Leno. *hc*, H. Yardley.

DOCKAS (Carolina).—1, M. Leno. 2, C. H. Mayo. *hc*, R. Wilkinson, Guildford, Surrey; Mrs. Arkwright, Sutton Scarsdale, Chesterfield; S. Burn, Whitby; H. Yardley.

DOCKAS (Call).—1, R. Gladstone, jun. 2, Mrs. H. J. Bailey, Rosedale, Tenbury. *c*, A. H. Jones, Lark Hill, Liverpool.

DOCKAS OR ORNAMENTAL WATERFOWL (Any other variety).—1, M. Leno. 2, H. Yardley. *hc*, K. R. Fowler; C. H. Mayo, Dorchester (2); R. Wilkinson; M. Leno (3).

DOCKAS (Any variety).—1, S. Burn, Whitby. 2, P. Unsworth, Loxton, Newton-le-Willows. 3, J. K. Fowler. *hc*, Rev. C. B. Rowland, Clifton Vicarage, Warwick; W. Tyler, Birmingham (2); E. Shaw, Plas Wilnot, Oswestry; E. Kendrick, jun. (2); W. B. Eches; W. Stephens, Highnam Green, Gloucester; A. Woods, Sefton, Liverpool (2); J. Walker; C. L. Boyce, Birmingham; C. H. Mayo (3).

GEESSE (White).—*Cup*, J. Walker. 2, R. R. Fowler. 3, Lord Sudeley, Tuddington, Wiltshire. *hc*, Lady G. Vernon, Droitwich; Lord Sudeley.

GEESSE (Grey and Mottled).—1, R. R. Fowler. 2, J. Walker. 3, T. Watson, Whiteacre, Coleshill. *hc*, Mrs. Thornhill, Thetford; Miss L. King, Geashill, King's county, Ireland; E. Shaw (2); A. Woods; Mrs. H. J. Bailey, Rosedale, Tenbury; W. Lort.

TURKEYS.—*Cocks*.—*Cup*, Rev. N. J. Ridley. 2, J. Walker. 3, W. Wykes, Wolvey, Hinckley. *hc*, Mrs. J. Nutt, Fillingale, Coventry; E. Arnold, Whittlesford; R. Lythall, Offchurch, Leamington; Mrs. Lawrence, Chesterfield; Mrs. H. J. Bailey; W. B. Eches.

TURKEYS.—*Young Cocks*.—1 and 3, E. Kendrick, jun. 2, W. Wykes. *hc*, T. Watson; E. Kendrick, jun.; J. Nutt; Lady G. Vernon. 4, W. Wykes (2); F. Lythall (3); W. Wykes; Rev. N. J. Ridley; Mrs. Lawrence; J. Walker.

TURKEYS.—*Hens*.—*Cup*, E. Arnold. 2, Rev. N. J. Ridley. 3, E. Kendrick, jun. *hc*, F. Lythall (2); W. Wykes; T. Watson.

TURKEYS.—*Young Hens*.—1, W. Wykes. 2, J. Walker. 3, E. Arnold. *hc*, F. Lythall; E. Kendrick, jun.; Mrs. Winterton; Mrs. Lawrence; J. Walker; W. Wykes.

PIGEONS.

CARRIERS (Black).—*Cocks*.—1, R. Fulton, New Cross, London. 2, H. Yardley, Birmingham.

CARRIERS (Black).—*Hens*.—*Cup*, R. Fulton. 2, H. Yardley. *hc*, W. Siddons, sen., Acton, Birmingham.

CARRIERS (Dun).—*Cocks*.—1 and 2, R. Fulton.

CARRIERS (Dun).—*Hens*.—1 and 2, R. Fulton. *hc*, W. Siddons, sen.

CARRIERS (Any other colour).—1, W. Siddons, sen. 2, H. Yardley.

CARRIERS (Black).—*Young*.—1, F. Smith, Birmingham. 2, H. M. Maynard, Ryelands, Isle of Wight. *hc*, R. Fulton.

CARRIERS (Any other colour).—*Young*.—*Cup*, H. Heritage, Mortlake. 2, R. Fulton.

POUTERS (Red or Yellow).—*Cocks*.—1 and *hc*, R. Fulton (2). 2, H. Pratt, Birmingham.

POUTERS (Red or Yellow).—*Hens*.—*Cup*, F. Gresham. 2, H. Pratt.

POUTERS (Blue).—*Cocks*.—*Cup* and 2, H. Pratt. *hc*, W. W. Watkin; R. Fulton; E. Beckwith, Sunderland.

POUTERS (Blue).—*Hens*.—1 and 2, F. Gresham. *hc*, E. Beckwith; W. Harvey, Sheffield.

POUTERS (White).—*Cocks*.—1, W. W. Watkin. 2, Mrs. Ladd, Calne. *hc*, H. Pratt; Mrs. Ladd.

POUTERS (White).—*Hens*.—1, R. Fulton. 2, Mrs. Ladd. *hc*, W. W. Watkin.

POUTERS (Any other colour).—*Cocks*.—1, H. Pratt. 2, F. Gresham. *Hens*.—1, R. Fulton. 2, E. Beckwith.

TUMBLERS (Alderton).—*Cup* and 2, R. Fulton. *hc*, H. Yardley; J. Ford, London.

TUMBLERS (Short-faced).—1, R. Fulton. 2, E. Beckwith. *hc*, J. Watts.

TUMBLERS (Long-muffed).—1, W. B. Mapplebeck, jun., Masey, Birmingham. 2, J. Watts. *phc*, F. Smith, Birmingham. *hc*, W. B. Mapplebeck, jun.; F. Smith; W. Todd, Erdington, Birmingham (2); C. E. Chavasse, Birmingham; E. D. Careless, Birmingham. *c*, W. B. Mapplebeck, jun.; F. Smith.

TUMBLERS (Any other variety).—1, W. Ellis. 2, W. B. Mapplebeck, jun. *hc*, J. Ford; J. Watts.

BALDS.—1, W. W. Woodhouse. 2, G. Smith.

BALDS.—1 and *Cup*, J. Ford. 2, G. Smith. *phc* and *hc*, W. Woodhouse.

BARDS.—*Cup*, H. M. Maynard. 2 and 3, R. Fulton. *hc*, F. Smith.

BARDS.—*Young*.—1, H. Yardley. 2, H. Heritage. *hc*, F. Smith.

TRUMPETERS.—1 and 2, R. Fulton. 3, S. Shaw.

RUNTS.—1 and 2, T. D. Green, Saffron Walden. *hc*, A. A. Vander Meersch.

TOOTING.—*Cup*, H. Yardley.

FANTAILS (White).—*Cup* and *c*, Rev. W. Serjeantson, Shrewsbury (2). 2, H. M. Maynard. 3, J. E. Loveridge. *hc*, Rev. W. Serjeantson; E. Beckwith.

FANTAILS (Any other colour).—1, 2, and 3, H. Yardley.

ARCHANGELS.—1 and 2, R. Wilkinson, Guildford.

NUVS.—1, H. Yardley. 2, A. A. Vander Meersch.

SWALLOWS.—*Cup*, H. Yardley. 2, W. Todd. *hc*, W. Harvey.

MADES.—1, W. Todd. 2, H. Yardley. *phc*, J. Watts. *hc*, W. Harvey, Sheffield.

JACOBS (Red or Yellow).—*Cup*, W. Woodhouse. 2, A. A. Vander Meersch. *hc*, R. Fulton (2). *c*, G. Smith.

JACOBS (Any other colour).—1, R. Fulton. 2 and *hc*, A. A. Vander Meersch. *c*, S. Shaw, Stainland.

TURBOTS (Red or Yellow).—1, S. Shaw. 2, W. Todd. *hc*, O. E. Cresswell. *c*, H. Yardley.

TERRITS (Any other colour).—1, G. South. 2, R. Filton. *the*, H. Yardley.
OWLS (Foreign).—1 and *the*, J. J. Sparrow, London. 2 and *hc*, F. Braund, Bideford.
OWLS (English).—1, J. Watts. 2, S. Shaw. *hc*, W. Tedd. *c*, R. Filton.
DRAGONS (Blue).—Cup, R. Woods, Mansfield. 2 and 3, W. Gamon, Chester.
the, C. E. Chavasse. *hc*, J. Watts; G. South, London; H. Yardley; W. H. Mitchell, Moseley, Birmingham (2); R. Woods; F. Graham, Birkenhead; W. Gamon. *c*, W. Ellis, Idle, Leeds; R. Woods.
DRAGONS (Red or Yellow).—1 and 2, F. Graham. 3, G. South. *the*, R. Woods. *hc*, R. Woods; F. Graham (2). *c*, R. Woods; G. South.
DRAGONS (Silver).—1, G. South. 2, W. Gamon. 3, W. Bishop, Dorchester. *hc*, H. Yardley; F. Graham; W. Gamon; W. B. Tegetmeier, Finchley, London; W. Bishop. *c*, H. Ya. dley.
DRAGONS (Any other colour).—1, W. B. Mapplebeck, jun. 2, W. Bishop. 3, *hc*, and *c*, F. Graham.
ANTWERPS (Silver Dun).—1, C. F. Copeman, Birmingham. 2, W. Gamon. 3, H. Yardley. *hc*, W. Slater; W. Gamon (2); W. Vao Ward, Birmingham.
ANTWERPS (Blue).—1, W. Gamon. 2, H. Yardley. 3, J. W. Ludlow. *hc*, W. Vao Ward; W. Slater.
ANTWERPS (Red Chequered).—1, 2, and 3, W. Gamon. *c*, W. Ellis; W. Slater.
ANTWERPS (Blue Chequered).—1, W. Gamon. 2 and 3, J. W. Ludlow. *hc*, W. Gamon; H. Yardley.
ANTWERPS (Homing).—Cup and 3, W. Ellis. 2, J. J. Sparrow. *hc*, H. Yardley; W. Ellis (2); J. J. Sparrow. *c*, W. B. Tegetmeier.
ANY OTHER VARIETY.—1, J. W. Ludlow; W. Harvey. 2, H. Yardley; J. W. Ludlow. 3, W. B. Mapplebeck, jun.; H. Yardley. *hc*, R. Filton; J. W. Ludlow. *c*, W. B. Mapplebeck, jun.; H. Yardley (2); J. W. Ludlow.

JUDGES.—*Poultry*: Mr. J. Bailey, Mount Street, Grosvenor Square, London, Classes 11 to 24, 39 to 52, 69 to 71. Mr. J. Dixon, North Park, Clayton, Bradford, Classes 53 to 63, 98, 99, 105 to 111. Mr. E. Hewitt, Eden Cottage, Sparkbrook, Birmingham, Classes 25 to 38, 88 to 91, 100 to 104. Mr. W. R. Lane, New Street, Birmingham, Classes 76 to 79, 93 to 97. Mr. E. Lowe, Comberford, Tamworth, Classes 80 to 87. Mr. J. H. Smith, Skelton Grange, York, Classes 72 to 75, 92. Mr. R. Teebay, Fulwood, Preston, Classes 1 to 10. *Pigeons*: Mr. H. Child, Brunswick Road, Sparkbrook, Birmingham, Classes 129, 149 to 157. Mr. F. Esquilant, 4, Effra Road, Brixton, London, Classes 112 to 128, 130 to 135. Mr. Harrison Weir, 9, Lyndhurst Road, Peckham, London, Classes 136 to 148, 158.

CHIPPENHAM POULTRY SHOW.

"Sometimes there are clouds of gloom,
 But these are transient all.
 If the shower will make the Roses bloom,
 Oh, why lament its fall?"

BUT as on Thursday, November 26th, 1874, after the week's frosts, incessant rain for a month will not make the roses bloom again this year, one must confess we did lament its fall, especially as it fell and brought with it snow, and sleet, and mist. It was not in the pleasantest of tempers that we entered the Poultry Show, and we did not find much there to raise the spirits. Some of the birds were very good, but the arrangements were wretched. When we left late in the afternoon there was not a catalogue ready, though we walked to the printers ourselves and tried to obtain one; and as for the pens, the least said of them the better—mere empty boxes, tea-chest-looking affairs, with wire nailed on the fronts. Surely next year the Committee will send to Southampton and see what Mr. Billett can do for them. The greater part of the birds, too, were in a very cold place, and looked at times quite miserable, but then the day was most depressing, and being a small Show we must not be too critical. We hope, however, next year to find some improvements. Mr. Hodson judged, and his awards gave great satisfaction. We feel sure he must have had some difficulty, for some of the pens were in perfectly inaccessible dark corners, and the pens did not go on smoothly, but up and down three tiers, and so some birds in a class were on the dark floor, and others in a high position and good light.

Dorkings came first. The first and second were two good pens of coloured birds in fine condition, and certainly above the average quality; third highly commended (Pope), a large pen of Whites, but cock loose in comb and bad colour in wings; 7 (Orledge), a fair pullet. *Spanish* made up quite a smart class. The first-prize pen had a beautiful old cock and a hen with a capital face. The second-prize pen was a good pair also, as were Mrs. Bartrum's two pens 10 and 11. *Game* had two classes; the Reds were the best, the winning pens being two smart pens, and nicely shown. 17 (Stagg), a good hen of fine shape. *Cochins* were fourteen pens. The first prize went to old Whites, the hen rather small and with a shade of colour on her breast. The cock was the bird third at the Palace; he is good in colour, but has a poor comb and seems weak in the legs. The third went to nice Partridge chickens. 37 (Pearson) had a large lemon cock, but a poor hen. 41 (Holmes), a good-shaped White hen, but poor in comb, and the cockerel with her yellow. *Brahmas* were in one class, and they mustered thirty-one pens. The first went to a nice showy pen of Lights, which had the good luck to be in a high pen and in good light. The third went to fair Darks. 53 (Seammell), a nice-shaped Light cockerel with a bad comb. 75, Highly commended (Maggs), a nice pen. We were really much pleased with the *Hamburgs*, one seldom sees so good a lot at the southern agricultural shows. In Spangled the first were very good in comb and lobe, and a bargain at catalogue price of £2 2s. Second also good and cheap. 90 (Orledge) a good cockerel. In the Pencilled, 91 (Carr), the first-prize cockerel was

a very good bird, and won well; second also a nice pen of Golds. *Polands* only had three pens, but we think the first was almost the best pen in the Show of any breed. They were very beautiful Silvers, the cock with a wonderfully fine crest, and the hen well marked. Second very poor White-crested Blacks. *Game Bantams* were only middling, Black Reds first and Duckwings second; we liked the latter pen best, they were of the best colour. 109 (Wingfield & Andrews), a very fair pen. In the Variety Bantam class Gold-laced won first, a rather nicely marked pair. Second Blacks, a little coarse. 110 (Law), a nice pair of White Frizzled. The Variety class was a large one, but principally a poor lot. The first went to an exceedingly fine pair of Malays in very good feather; the second to a nice pair of Crêves, though the hen was rather brown in crest. 126 (Fry), a very fair pair of Andalusians, the cockerel with a good comb, and his shape very good. In the *Cross-breeds* a large pair of Brahma Dorkings were first. They were nearly thorough Brahmas, and seemed a large and useful pair of birds.

Turkeys and *Geese* were very good; the first-prize pen of the latter went to a pair of Mottled, very fine and heavy.

Rouen Ducks did not seem a grand lot, the first-prize pen easily ahead. The winning *Aylesburies* were large and good, but their pens were so small they did not show to advantage. In the Variety Duck class Blacks won the prizes. We liked the Duck in the first-prize pen very much, and we admired the drake in 177 (Stagg). The second pen was not so good as two or three of the highly commended ones, they were so very large, though good in colour and head.

In the Game-cock sweepstakes there were only two pens, both Mr. Stagg's, so he won back for his prizes his own entry fees, minus 1s. per pen, and gained in addition the additional bounty of £1 given by the Society. We furnish a complete list of awards below.

DORKINGS.—1, 2, and *hc*, J. Pope, Corsley, Warmminster. *c*, J. Orledge, Chippenham.
SPANISH.—1, J. R. Rodbard, Writington. 2, Mrs. Tonkin, Bristol. *hc*, Mrs. J. K. Bartrum, Chippenham (2).
GAME.—*Black-breasted and other Reds*.—1 and *hc*, W. H. Stagg, Netheravon. 2, E. F. Woodman, Cirencester. 3, J. Dimmock, Bowood. *Any other variety*.—1 and *hc*, F. Bailey, Calne. 2, G. Hanks, Malmesbury.
COCHINS.—1, J. Turner, West Hayes, Bath. 2, Hon. Mrs. Sugden, Wells, Somerset. *hc*, Rev. C. R. J. Pearson, Buckland, Durham; Mrs. Tonkin; Mrs. J. T. Holmes, Bath. *c*, Hon. Mrs. Sugden; Miss J. Milward, Newton St. Loe; H. Haddrell, Calne.
BRAHMAS.—1, Mrs. J. T. Holmes. 2, H. Haddrell. *hc*, J. S. Maggs, Tethury. *c*, W. E. Smith, Bath; J. R. Rodbard; H. Haddrell.
HAMBURG.—1, *Gold or Silver-spangled*.—1, C. Topp. 2, T. Reeves, jun., Bratton. *hc*, H. H. Thompson, Colehill; J. Orledge. *Gold or Silver-pencilled*.—1, J. Carr, Swaensea. 2, J. Ackerman, Witney, Oxon. *hc*, T. Reeves, jun. *c*, J. Orledge.
POLANDS.—1, J. Hinton, Warmminster. 2, Hon. Mrs. Sugden.
BANTAMS.—*Game*.—1, E. C. Phillips, Brecon. 2, G. S. Sainsbury, Devizes. *hc*, G. Hanks; Wingfield & Andrews, Worcester. *Any other variety*.—1, R. W. Martin, Bath. 2, B. F. Parrott, Henbury. *hc*, Rev. K. V. Law, Christian Malford, *c*, Rev. R. V. Law; B. F. Parrott; J. S. Maggs.
ANY OTHER DISTINCT BREED.—1, J. Hinton, Warmminster. 2, J. H. Ward, Garsage, Dorset. *hc*, C. G. Moule, Melksham; J. C. Fry, Marchfield; R. W. Martin. *c*, J. Pope; M. H. Sturt, Pewsey.
CROSS BREEDS.—1, J. S. Maggs. 2, A. Gregory, Chippenham.
TURKEYS.—1, Miss J. Milward. 2, N. M. Brown, Langley Fitzurse. *hc*, I. Smith, Chippenham. *c*, R. Spackman, Broughton Gifford.
GESE.—1, A. Spackman. 2 and *c*, G. Hanks.
AYLESBURY.—1, J. S. Maggs. 2, G. Hanks. *Any other variety*.—1, J. S. Sainsbury. 2, G. Hanks. *hc*, G. Hanks; H. Brown, Moulton, Swindon.
SWEEPSTAKES FOR GAME COCK.—1 and 2, W. H. Stagg, Netheravon.
JUDGE.—Rev. F. G. Hodson.

DUMFRIES AND MAXWELLTOWN POULTRY SHOW.

BY far the largest and best Show ever held at Dumfries came off on November 27th and 28th, and not alone were the entries large, but the quality showed a marked progress upon all previous Shows. The Mechanics' Hall is a building well adapted for the purpose; and while it is far from prepossessing outwardly, the interior is handsomely decorated, and on this occasion ornamented with foliage plants. The pens in which the poultry were shown were of wood with wire fronts, the only fault being that they were rather small for the large varieties, and the examination of these was consequently rather difficult.

First on the list were the *Dorkings* (mostly Silver-Greys), and we can congratulate the owners upon the possession of some capital birds in both old and young, the colour, size, and style being in all respects correct. *Spanish* were a moderate lot, with the exception of the winners; but these were good in both young and old, the latter winning the medal. *Cochins* any age were first and second old, and third young, all good in colour except the second, the cockerel. In young some of the best birds were badly matched, Cinnamon cocks being mated to Buff pullets in some cases, but the winners were well matched and good in colour. *Brahmas* in both sections were grand, Dark winning first, second, and medal, and a nice pen of Light ones third, the medal pen being uncommonly good in shape and foot-feathering. The young birds were a large class and mostly noticed, the first, a neat and perfect pen, were not the largest; second large, but scarcely so forward; the third-prize cockerel looked older and more worn, but the pullet was most exquisitely pen-

cilled. In Red Game the first were a pen of Black Reds, not as stylish as some, but very sound and hard in flesh and feather; second and third Brown Reds, the first old and second young, good in all particulars, but scarcely of the fashionable shade of colour. Duckwings and Piles were rather irregularly shown, many of the hens not good in colour; the first, Duckwings, very neat, but young and small; second also of that variety, larger, but not equal in colour; third very sound Piles, rather short of colour.

With the exception of the winners the *Hamburghs* were not good; the Gold-spangled, excepting the first two, being especially poor. The first in Silver-spangled were a good sturdy pen, and well worthy their position. As a class the Gold-pencilled were by far the best, the medal for the section being awarded here to a perfect pen of chickens, the Silver-pencilled running these very closely, but the rest in this class were but poor. A class was provided for *Houdans*, and this was well filled, and most of the birds were very good, the winners of high quality, the first-prize cock and second-prize hen being two of the best crested birds we have ever seen. *Scottish Greys* were not good, for although these were generally well marked, yet the cocks were mostly white in tail. Silver *Polands* were first in the Variety class, and Gold second, the third being a nest pen of *Crêves*. The Selling class was large, and many birds changed hands; eighteen pens of these were noticed. *Aylesbury Ducks* were good, but Rouens even better; every pen of the latter was noticed. In *Sebright Bantams* the winners were all Golden, and of fair quality. Black were pretty good as a class, the first-and-medal pen one of the best we have seen of late, small, neat, perfect in comb, and extremely well furnished; second a neat pen, but large; and third good, but not in full feather. Whites were very poor. In Red Game Bantams the first were a capital pen of old birds; second Brown Reds; and third also Black Reds, the latter failing in colour, but very good in style. In the next class Duckwings and Piles were the winners, the first grand, but looking a little sickly.

PIGEONS.—There were nine classes, *Pouters* being first on the list. This class was not good, but a really good pen of Whites was first. In *Carriers*, the first were Duns of great merit; the second Blacks, younger, but grand in style and carriage; the third, also Blacks, were rather broad in skull. *Fantails* were very good, many of these being very good in carriage and motion, with good tails, and most of these were noticed in the list. In *Tumblers*, Short-faced, the first and second were Almonds, and third Black with splashed necks. In common Tumblers, of which there were twenty-two entries, there were some capital birds; the first a perfect pair of Blue Balts, second a nice pair of Yellow Mottles, and third Blue Beards. *Barbs* were pretty good, Duns taking the first position, Blacks the second, and Yellows the third. The first-prize Red *Jacobins* were very good in all points, but none of the rest were of more than ordinary merit. In the Variety class a very good pair of Mottle Trumpeters were awarded first, the second being Black Trumpeters, and third Yellow Turbits.

It is long since we saw a show better managed than this, the Secretary, Mr. Maxwell, with a capital Committee, looking well to the comfort of the birds. There was a large and good show of *Canaries* and other cage birds, most of which were of the Scotch Fancy varieties.

DORKINGS.—Medal, J. Cunningham, Tarbrooch, Castle Douglas. 2 and *W. G. F. Lyon*, Kirkcubbin, Dumfries. 3, W. F. H. Arundell, Dumfries. *hc*, R. Reid, Holbaird, Canobie (2). *Chickens*.—1 and 2, J. Cunningham. 3, R. Reid. *hc*, Capt. A. P. C. Maxwell, Terregles; G. F. Lyon; W. F. H. Arundell. *c*, Capt. A. P. C. Maxwell; G. F. Lyon.

SPANISH.—Medal, Wallace, Anchenbrin, Manchline. 2, W. Martin, Stranraer. 3 and *hc*, J. Pool, Milnfeld, Annan. *Chickens*.—1, M. A. Wither, Stranraer. 2, W. Wallace. 3, W. Martin. *hc*, Miss H. Robinson, Wigton; J. Pool, Milnfeld, Annan.

COCHIN-CHINA.—Medal, W. Martin. 2 and 3, G. F. Lyon, Dumfries. 3, T. Kennedy, Dumfries. *hc*, R. Reid. *Chickens*.—1, R. Maxwell, Dumfries. 2 and 3, G. F. Lyon. *hc*, Capt. A. P. C. Maxwell; T. Kennedy; W. Martin.

BRAHMA POOTRAS.—Medal and 2, R. Maxwell. 3, A. F. Faulkner. *hc*, R. Reid. *Chickens*.—1, G. F. Lyon. 2 and *hc*, R. Maxwell. 3, H. Wilkinson, Earby, Skipton. *hc*, Mrs. Black, Castle Douglas; T. Kennedy; G. F. Lyon. *c*, A. Hentchison.

GAME.—Black Reds, and other Reds and Blues.—Medal and *hc*, J. A. Mather, Nithside, Closeburn. 2 and 3, J. Brough, Carlisle. *hc*, J. Robertson, Lochmaben. *Miss Knott*, Dumfries. 2, D. Walker, Heathfield, Holywood. R. Bryden, Lochmaben. *Duckwings*, *Whites*, and other Greys.—Medal A. McAdam, Castle Douglas. 2 and *c*, J. A. Mather, Nithside, Closeburn. 3, J. Brough. *hc*, J. Robertson. 2.—Martin, Meltrum, Georgetown, Dumfries; J. A. Mather; J. Craig, Dumfries. *c*, J. A. Mather.

HAMBROGS.—Golden-spangled.—1 and 2, G. F. Lyon. 3 and *c*, W. Martin. *Silver-spangled*.—Medal, W. Martin. 2 and 3, T. Murray, Dumfries. *Golden-pencilled*.—Medal, W. Martin. 2, T. Murray. 3, W. Linton, Selkirk. *hc*, R. Muir, Cairnhill, Kilmarnock; G. F. Lyon. *c*, L. Bouch, Aspatria. *Silver-pencilled*.—1, W. Martin. 2, J. Lochhead, Kilmarnock. 3 and *c*, R. Muir.

HOUDANS.—Medal, A. Wither, Stranraer. 2, Miss H. Robinson, Wigton. 3, J. Lambie, Pathhead, Cumnock. *hc*, Miss H. Robinson; L. Bouch. *hc*, Miss H. Robinson; G. F. Lyon. H. Wilkinson; R. Carlisle, Nunholm, Dumfries. *c*, D. B. Hope, Oakfield, Dumfries; J. Pool, Milnfeld, Annan.

SCOTTISH GREYS.—1, J. Pool, Beith. 2 and *hc*, G. F. Lyon. 3, A. H. Paton, Cross, Kilmarnock. *c*, W. Lawson, Pleasance, Dumfries.

ANY OTHER VARIETY.—1 and 3, W. Martin. 2, R. Reid. *hc*, G. Anderton, Accrington, Lancashire; D. B. Hope (Hornets); Miss Knott (Polands); J. M. Wilson, Kilmarnock; A. Wylie, Johnstone, Paisley. *c*, Miss Knott (Poland).

SELLING CLASS.—1, R. Irvine, Kirkhouse, Milton, Carlisle. 2, W. Martin. 3.—Wallace. 4 and 5, G. F. Lyon (Cochins and Ducks). 6, W. F. H. Arundell. *hc*, W. Martin; W. F. H. Arundell. *hc*, R. Armstrong, Abbey-croft, Carlisle (Bantams); G. Anderton; G. F. Lyon (Brahma Pootras); R. Reid; W. F. H.

Arundell; R. Kerr, Closeburn (3). *c*, Miss Knott (Dorkings and Cochins); J. Pool.

DUCKS.—*Aylesbury*.—1.—Wallace. 2 and 3, G. F. Lyon. *hc*, M. Smith, Townhead, Thornhill; W. Martin. *hc*, Major Bowden, Lochfield, Maxwelltown; M. H. Maxwell, Dumfries; Mrs. Pattie, Castlewards, Torthorwald (2); W. Martin. *Rouen*.—Medal, W. Martin. 2, J. A. Mather, Nithside, Closeburn; G. F. Lyon. *hc*—Wallace; G. F. Lyon; 2, Maxwell, Auldgarth; W. Martin; W. F. H. Arundell. *c*, W. Lawson.

BANTAMS.—*Gold and Silver-laced*.—1, 2, and 3, J. Robertson. *Black*.—Medal and 3, R. H. Ashton, Mottram, Manchester. 2 and *hc*, J. M. Laren, Kilmarnock. *hc*, J. Robertson. *c*, J. Robertson; W. Robertson, Stewarton; J. Lochhead, Kilmarnock; W. Atkinson, Fellside, Kendal. *White*.—1, J. Robertson. 2, G. McKechnie, Fairgirth, Colvend.

GAME.—*Black Reds and other Reds*.—Medal, W. Atkinson. 2, J. Huie, Kendal. 3, J. Mair, Belzies, Lochmaben. *hc*, Miss H. Robinson, Wigton; M. Smith, Townhead, Thornhill. *hc*, J. Morrison, Gateside, Colvend; A. Blair, Lambhill, Dollar. *c*, M. Smith. *Duckwings and other Greys*.—1, R. J. Hartley, Altrincham. 2, G. Briggs, Dumfries. 3, J. M. Laren, Kilmarnock. *hc*, J. Little, Dumfries.

PIGEONS.

POSTERS.—Medal, J. M. Donald, Portobello. 2, W. S. McAllister, Lanark. 3, Miss Knott.

CARRIERS.—Medal and 2, S. D. Raddeley, Hereford. 3, A. Hutchison, Stranraer. *c*, J. E. Spence, Broughty Ferry.

FANTAILS.—1, T. Douglas, Thornhill. 2, J. C. Spence. 3, J. Lambie. *hc*, Miss Knott; T. Douglas; Cumming & Fleming, Cross, Beith. *hc*, J. F. Liveridge, Newark (2); T. Douglas.

TUMBLERS.—*Short-faced*.—Medal, W. Brydone, Langton Main, Dunse. 2, J. Turner. 3, J. Smart, Montrose. *hc*, F. Douglas. *c*, E. McKie, Maxwelltown. *Common*.—1, J. Thomson, Maxwelltown. 2, Cumming & Fleming. 3, J. Brydone, Gavinton, Dunse. *hc*, J. Craig, Dumfries; J. Day, Edinburgh. *hc*, J. Hannah, Maxwelltown (2); J. Douglas, Dumfries; J. Stewart, Pathhead, Cumnock; R. Kerr, Closeburn. *c*, J. Murray, Maxwelltown; J. Turner. T. Douglas (2); R. Kerr.

BARBS.—1, J. E. Spence. 2, J. Brydone. 3, R. Service, Maxwelltown. *hc*, W. Brydone. *hc*, J. Craig, Dumfries. *c*, E. McKie; J. Day.

JACOBS.—1, W. Brydone. 2, J. Brydone. 3, J. Lambie. *hc*, J. Lambie; J. Smart, Montrose.

ANY OTHER VARIETY.—Medal, J. & W. Towerson. 2, A. Hutchison, Stranraer. 3, J. Brydone. *hc*, J. Lambie; A. Patrick; J. & W. Towerson. *c*, J. Smart; W. Shearer, Dumfries (Turtle Doves); G. Black (Turtle Doves).

CAGE BIRDS.

SCOTCH FANCY.—*Yellow*.—Cock.—1, J. Thorpe, Dumfries. 2, J. Wilson, Greenock. 3, A. Harkness, Kirkcubbin. 4, R. Bryden, Lochmaben. *Hen*.—1, and 4, R. Bryden. 2, A. Harkness. 3, J. Little, Dumfries.

SCOTCH FANCY.—*Buff*.—Cock.—1, J. Little. 2, A. Harkness. 3, J. Thorpe, Dumfries. 4, J. Ritchie. *Hen*.—1, W. Love. 2, J. Ritchie. 3, J. Little. 4, A. Harkness.

PIEBALDS.—*Yellow*.—Cock.—1, J. Little. 2, J. Thorpe. 3, J. Stewart. 4, R. Bryden. *Hen*.—1, W. Clark, Langholm. 2, J. Thorpe. 3, J. Ritchie. 4, J. McCreedy, Stranraer.

PIEBALDS.—*Buff*.—Cock.—1, R. Bryden. 2, J. Ritchie. 3, J. Thorpe. 4, J. Little. *Hen*.—1, J. Little. 2, J. Wilson, Greenock. 3 and 4, J. Thorpe.

BELGIANS.—Cock.—1, J. Thorpe. 2, J. McQuhae, Maxwelltown. 3, J. Wilson, Hen.—1, J. McQuhae. 2, J. Edgar, Maxwelltown. 3, R. Bryden.

G. LOUPIN MULES.—*Yellow or Buff*.—1, J. Thorpe, Dumfries. 2, J. Richardson, Dumfries. 3, J. Russell. 4, W. Thomson.

GOLDF. NCH.—1 and 4, J. Thorpe. 2, A. West, Lockerbie. 3, D. Copland. **SELLING CLASS.**—1 and 5, A. Harkness. 2, R. Bryden. 3, J. Thorpe. 4, R. Edgar. 6, J. Little.

PARROTS OR FOREIGN BIRDS OF ANY DESCRIPTION.—1, J. M. Wilson, Kilmarnock. 2, D. Shearer, Dumfries. 3, A. Smith. *hc*, Miss C. Charteris.

JUDGES.—*Poultry and Pigeons*: Mr. E. Hutton, Pudsey, Leeds. *Canaries*: Mr. R. Crawford, Kilmirrie, and Mr. T. Buchanan, Glasgow.

KILMARNOCK POULTRY AND PIGEON SHOW.

(From a Correspondent.)

Pouters numbered 125 pens, and, though some noted lofts were unrepresented, the quality was quite up to what we have seen at Glasgow and Edinburgh. We were curious to see if the "Any other colour or marking" controversy would have any effect in altering or modifying the judging of Mr. Huie this year, more especially as we heard some little grumbling among the Glasgow men as we entered. Before going over the classes we confess to a little surprise that several noted birds were not placed higher; but after a careful examination, with the necessary allowances in criticising this variety, it was our opinion, with the few exceptions noted below, that Mr. Huie had done his work in his usual admirable style. But let no one suppose that his colour and markings will be leniently dealt with. The controversy has not touched the sacred standard, and all alarm may now cease. Shape, with colour and markings, constitutes Mr. Huie's *Pouter*.

The Black or Blue cocks showed few indifferent birds. 592 deserved the commendation awarded; 594, a nice bird in bad order; 595, fourth prize, had nice globe and style, but was too short in feather; 598 ought at least to have been commended; 599, third-prize, we did not much like; 600, second-prize, a splendidly limbed bird, close up to 606; the winner, a splendid Black in all points. No. 604 was a good bird as we saw him, not noticed.

Red, Yellow, and Mealy cocks were put together. Fourth-prize, a finely shaped Yellow, well marked but bad in colour. Same may be said of third-prize; 612, a capital bird, deficient in globe. The first and second were well placed, and good deep Reds; pen 624, highly commended, was one of the surprises. This bird has got a trifle heavier in shoulder, but in show he is still a splendidly shaped bird. He is bad in colour and only fair in marking.

Any-other-colour cocks showed nothing special, with the exception of the winner. We thought the fourth-prize a mistake, as he showed a hooked limb and appeared deficient in style. Better birds, in our opinion, were passed over.

Black or Blue hens were very good. The first and second

were splendidly limbed, but we failed to get them into proper show; the third was a nice Black; 643, a good Black, too shy to show; 649, the fourth, was showing beautifully as we passed, and might have taken the honours had her moult been completed. 652 contained a meritorious hen, highly commended.

In hens, the Reds, Yellows, and Measles competed. 656, third-prize, was very good in shape but washed-out in colour; 662 contained a nice Yellow hen. We preferred the second-prize to the first in this class; 664 contained all that a hen Pouter should be, beating all in the class easily. Her colour (mealy) must have weighed heavily against her.

In Any-other-colour hens the first and second were well placed, but we preferred 672, highly commended, to the third and fourth.

Young cocks formed an excellent class, and the most exacting could find no fault with the judgment. A commendation was here worth something. The winners were first-class birds. 688 contained a nice bird, thin in limb. We did not admire the hooked limb in the highly commended pen 689. 690 contained a promising bird rather gay in marking.

Young hens were also an excellent class. 692 was full of excellence, save in colour; so also was 694, but both were left out in the cold. First and second were good in limb, but the fourth beat all in the class for style. We thought her, however, a little short in feather to look at.

Carriers.—The cock class had some good specimens. The first and second-prize birds were grand. In hens, the only bird good all round was Mr. Baddeley's. None of the others deserved special notice. In the class for birds bred in 1874, the first and second were strong and long in feather and face, the first somewhat Parrot-beaked; we liked the second better, he was better eyed, and had a good box beak. Perhaps a suspicious blank in the plumage in the neck had something to do with the placing of the bird.

Short-faced Tumblers were only fair, we have seen better birds when a local fancier exhibited in this class. The first was good in colour, but deficient in head properties.

Barbs contained nothing of special note; there were none of those old used-up worn-out birds, whose life must be burdensome to themselves, but there were a few with the requisite width of skull. They were as well judged as could be expected considering the birds to be dealt with. In Barbs bred in 1874 Mr. Charlton must have overlooked the white tail in the hen in the first pen; besides, we suspect her neighbour had made her debut in 1873. This class was only fairish.

Trumpeters.—Mr. Vander Meerach's Black first, closely followed with Mr. Lederer's Mottle; none of the others above mediocre, and some far below it. We would have awarded the special to this class, as the best bird in it was superior to anything in either Short faces or Barbs.

Fantails.—A large class, and to the uninitiated every bird as good as its neighbour, and a great deal better. Mr. Charlton must have had some difficulty in selecting the prize birds, and yet we think his decisions were correct. The Beith fanciers have got the right thing in Fans and they came well to the front.

Jacobins.—Fifty-three pens, the largest class in the Show. Mr. Brydone put his best foot foremost here, and won with a splendid Jack; Mr. Gilmour's second was a Red; third, a well-conditioned White, and the fourth a Yellow. Some of those left out in the cold were fully as good as the last two.

Turbits, in pairs: here Mr. Brydone had luck, being first again; we think this was the most manifest mistake Mr. Charlton made. How he could overlook their faults we cannot divine; they did not match, one was a peak the other a shell, or rather they were neither the one nor the other. We would have put third first, and fourth second; Mr. Angus's second third, and Mr. Muir's 933 fourth.

English Owls.—We were disappointed with this class, most of the birds were badly matched; Mr. Ridley's birds were kite-barred, but were placed first. We liked Mr. Yuill's 962 better; in head, beak, gullet, and rose they were head and shoulders beyond the other, but perhaps they had too much African blood in them.

Flying Tumblers had classes for Self-colours and Blue-barred, or Any other colour. First, in Selfs splendid Blacks; capital Mottles carried off the honours in the other class.

Balds or Beards, Long or Short-faced; this is a mistake, and always unsatisfactory: the Committee must separate the classes next year. First were nicely bearded, but very bad in colour. Fourth were also neatly bearded, but worse even in colour. Second and third were Balds, the latter neatly cut and good in colour, and might have been more forward in the prize list. The owner of a pair in this class in penning his birds allowed one to escape. Being called in question by one of the Committee for coming rather close up to the Judge, he explained that he merely wanted to say that the bird that had escaped was quite as good as the one left, and he hoped this would be kept in view while judging them. Had he been allowed to communicate the same, we would like to have been near Mr. Charlton; his face would have been a study for an artist.

Common Pigeons.—Seventeen pairs exhibited; this class might well be dispensed with.

Nuns were a fair class. Some birds, otherwise meritorious, lost themselves through want of condition and cleanliness.

Any other Variety were a very mixed lot indeed, African Owls first, Dragoons second and third, and Swallows fourth; a pair of foreign Owls, superior to the first, were evidently overlooked.

Selling Class, limited to 20s., contained nothing of note. We would advise the Committee to make the limit £3; as it was, several pairs were very cheap. First, Yellow Jacks; second, Red Barbs; third, Ice Pigeons; fourth, Blue Owls.

(From another Correspondent.)

THE following remarks are in continuation and conclusion of those given last week:—

Jacobins, Any colour, were a very large class, fifty-two pens in number. The first prize was given to a Yellow, a splendid bird, which also carried the extra prize; second a very good Red third a White, which we considered did not warrant the place; fourth a very good Yellow. This class contained many fine specimens, and taking into account its great size, must have been most bewildering to the Judge. With the exception of Trumpeters we do not know any class that has improved so much as Jacobins within the last few years.

Turbits, Any colour, in pairs.—This was a very pretty and large class, embracing most of the colours, but unfortunately many of the pairs were badly matched. The first-prize was Silvers, much too coarse for our taste; second-prize Reds, very fair birds; third Blues, which we thought the best of the three pairs. The class contained a great many remarkably fine birds, which would have appeared to greater advantage had they been shown singly.

English Owls.—A good-sized and pretty class. Many of the birds, however, appeared much too large and coarse.

Flying Tumblers, Self-coloured, in pairs.—This was a large and well-represented class, and particularly interesting to young fanciers, embracing also Mottles, Beards, Baldheads, &c. The winning birds—viz., Blacks, Reds, Whites, and Yellows, were very well placed, the Mottles, &c., having no chance in a class for self-coloured birds. Tumblers, Any other colour, a smaller but equally good class, containing Mottles, Splashes, &c. In this class were several pens competing for a prize offered for the best house Tumbler. Such birds were taken into the Committee-room and tried singly one after another, a novelty at Pigeon exhibitions. The prize was won by Mr. Miller's bird. The performance of this bird was something remarkable, it seldom rising above 1 foot from the floor, in which space it tumbled once or twice each time it rose. Mr. Miller has been long celebrated for this strain of birds.

Beards or Balds.—A large class, comprising both varieties. As it contained both long-faced and semi-short-faced birds, it must have given the Judge a great deal of trouble. Many of the birds were badly coloured, others bright in colour, others not very evenly matched, but upon the whole a good class.

Common Pigeons.—Though this class has little attraction for the experienced fancier, it is of vast interest to those young aspirants whose purses do not allow of great outlay, but whose names getting into print constitute them at once members of the fancy. In this class there were a great many very pretty birds, such as we used to prize in our earlier days.

Nuns.—With one exception this class were all Blacks. There was not the trimming in this class which we have so frequently seen at shows.

Any other variety.—A large class, and of great variety. The awards in this class were well dispersed throughout.

Selling Class.—Large, and of considerable variety, from Pouters downwards.

RABBITS.—Variety not a large class, but evidently increasing in number of entries.

CANARIES.—There was a large show of those birds—139 cages, all Scotch Fancy, little known in the south. In numbers they were larger, and the Judges pronounced them superior to former years. There was also a very pretty assortment of Males between the Goldfinch and Canary. Among those birds was one of exotic appearance, a Mule between the Goldfinch and Bullfinch, which attracted much attention. This Mule has been for many years successfully bred in Scotland. There was also a very pretty class of the Goldfinch, now a *rara avis*, though it used to be indigenous to Britain.

In concluding our remarks on this Show we may state that the total entries amounted to 1422. There were only two faults which occurred to us (and what show is perfect?); notwithstanding all the care and anxiety of the enthusiastic Committee—the tables upon which were placed the Pigeon pens were from 12 to 15 inches too low. A visitor under the middle size had to look down upon the birds, not at them; therefore even the Judges were placed at a disadvantage. The Committee, however, had supplied the Judges with one of the Scotch moveable show pens, which did great service. The other fault to which

we allude was the shortness of time allowed for judging. The judging began about 10.30. The doors were open to the public at 12. There were evidently one or two slips in the last two classes in Pouters, cocks and hens bred 1874. This is accounted for by the crowding of visitors into the Show before the judging was finished. The Committee is fully alive to those disadvantages, and intend to have a full day for judging in future, as well as an alteration in the tables named.

UNITING BEES.

I HAVE much pleasure in complying with the request of your correspondents to describe the mode of uniting bees practised here for some years with invariable success. At the same time I must confess to a series of failures previous to the adoption of the system, and it was only after a long and careful study of the habits and instincts of the bees themselves that we succeeded. I say we, because I am much indebted for his experience in the matter to a neighbour who keeps from eighty to a hundred hives, and who throughout the season will unite the above number, including those bees he gets from others in the neighbourhood who are about to destroy them to get the honey. He drives the bees and unites them to his own stock. I keep from fifteen to thirty hives, and admit not having the large experience he has.

By comparing notes we have come to the conclusion that the following is the best mode of uniting, after many a trial, and though others of your correspondents in their descriptions of the process of uniting come pretty near it, there are one or two points not noticed to which we attach great importance. We have tried the smearing process, but believe it to be very injurious to the bees, and wonder now why we ever tried it, seeing the extremely clean habits of the little workers. To smother them over in their own sweets is, to say the least, cruel, and bees once smothered in the way recommended never do any good until a young stock is reared. We admit they lick each other clean again, but the hair on the bees is generally all destroyed, which cannot be good for them; and besides, it is no preventive of fighting if they once begin, as we have proved over and over again. But to our process; and that it may be useful to the generality of bee-keepers I will first state the way in which we proceed with the common straw or wooden skeps with fixed combs, and then that which we adopt with the Woodbury or moveable bars.

First, then, we attach great importance to thoroughly frightening the bees before we begin, by blowing from a piece of cotton rag some puffs of smoke into the mouth of the skeps to be operated upon, and giving the skeps several good raps with the hands. Shut up the entrance, then, turn both skeps upside down; this will set the bees at once to fill themselves with honey. If it is known that there are plenty of cells with honey not sealed up they will fill themselves in ten minutes; but that there may be no doubt on the point let them be twenty minutes in this position, continuing to give them good raps with the hands to rouse them, at the same time getting everything prepared for what will follow. Place beside the turned-up skep another empty skep or box the same height, for the skep which the bees are to be driven into to rest upon; then gently remove the board (any bees in it should be shaken into the skep), next place the empty skep over the one the bees are in, and give some raps with the hand, when they will run into the skep prepared for them in about two minutes; draw back the skep till the two edges meet—the skep will rest on the one set for the purpose—let the edges of the two skeps nearly join, leaving only sufficient room for the bees to pass from the one skep into the other. All the bees and combs will now be exposed. It is well to have the two edges of the skeps meeting at the ends of the combs. When the bees run along the combs into the skep, a few puffs of smoke and raps with the palms of the hands will soon cause them all to leave the hive.

The queen must now be sought for and destroyed. This is done by laying a bag or such-like cloth on the ground, and placing an empty skep on the end of it, with the front raised about an inch by means of two wooden wedges. Then shake a few bees down on the sack or cloth, and look for the queen as the bees run into the empty skep, which they will do rapidly if they do not hear the sound of the bees still remaining in the hive, which should be covered with a board and moved aside a short distance. Shake out more bees on the cloth until the queen is found. Should she not be found on the first trial, after all the bees have been shaken out, which sometimes happens, the same process must be repeated by causing them to run again into the hive they were shaken from.

This may seem a laborious process to those who have not tried it, but really it requires less time to perform than to describe it. If the queens are both of the same age they may be united without catching one of them, but in that case it sometimes happens that a queen-encasement takes place, which causes annoyance and sometimes danger to the queens. It is soon observed when an encasement takes place by the unsettled state

of the bees, in fact they sometimes leave the hive. When that is seen lift the skep, and either one or two balls of bees will be seen with a queen encased in each. One of the queens must be destroyed, when they will soon settle. We always catch the queens we wish to destroy in case of accidents.

The two hives are then taken into a dark room with a lamp burning very low—just sufficient to see the bees, the flame of the lamp covered with a glass globe in case any of the bees take wing, which they seldom do. We use a paraffin lamp. Lay a cloth on the floor, remove the board from the hive which is to receive the bees, then shake some of the bees out of the skep from among the combs. If the skep is heavy this shaking is not so easily performed. In that case we run or drive about five thousand, or 1 lb. of bees, into an empty skep, and shake those bees on the cloth in front of the skep from which they have just been driven, then shake the whole of the driven bees among them, when they will all run together into the skep. If the weather is warm the wedges must be lifted a little higher to give air, as whenever the bees are disturbed the temperature rises, and the bees will not run in readily if it is too hot, but if sufficiently cool they will all run in in a few minutes. They should remain in a dark room all night, and be placed on any stance next morning. Not a single bee will be lost or fail to find out its home.

The process with the moveable bars is slightly different in practice, the principle is the same. We give them the smoke and raps with the hands, but do not turn them upside down. After removing the top, which alarms them enough, we take out the bars till we find the queen to be destroyed, then place the other skep to run the bees on the cloth, with the wedges inserted as before; shake the bees from two or three of the combs on to the cloth in front of the skep, take out the combs from the skep from which the queen has been removed, and shake all the bees off the comb among the bees on the cloth, when they all go into the skep as in the former case. It may seem from the description of both processes that the latter is the easier, but really the operation can be performed with the one sort of hive as speedily as the other, with the exception of its being more easy to get the queen on the moveable bar than by running the bees on the cloth.

The merits we claim for our system are, then, first we do not injure the bees in any way—neither by smearing with honey nor using fungus or chloroform to stupefy them. Second, we approach them as nearly as possible to the state they are in when swarming naturally by filling themselves with food, and by shaking a few of the bees from the skep in which the others are to be united on to the cloth; and mixing, as it were, the bees together on the cloth, they enter the hive as friends, ready to join in the advancement of the new home, and not as robbers; and third, we secure their complete subjugation by causing them to unite in the dark.

I may state, however, that though we advise the taking them into a dark room as an infallible cure for fighting, and also for uniting in spring when the weather is cold, we frequently let the mixing of the bees of both hives on the cloth out of doors before entering the hive suffice; but were we to see the least indication of fighting, we would remove both into the room at once. When the bees in the hive cease to make the familiar hum as those on the cloth and these meet, you may be certain of a fight, but if the hum is kept up by both parties it is a certain and joyful union.

When several swarms are to be put into one hive they are all driven into one empty hive first, all the queens having been caught except the one fixed on to keep, and mixed with the bees on the cloth as before described. A few weeks ago as many as eleven were united to one, on another occasion five, and another six. In other cases two and three are united, and I can safely assert that not a single bee was killed by fighting, unless robbers from other hives came among them, which they are very ready to do, as they soon smell the honey.—A. SHEARER, *Yester*.

P.S.—In my last communication there was a mistake in the printing, the price of the honey was 1s. 9d., you had it 2s. 9d.—A. S.

HIVES.

"APICULA" takes up the cudgels against wooden hives in defence of Mr. Pettigrew, but he must give us some better reason in proof of the superiority of hives of straw over hives of wood than the one only advantage he has alleged. We are all agreed that straw is a very excellent material for the manufacture of hives; it is both cooler in summer and warmer in winter, and wooden hives must be protected accordingly. I am not so sure as to the superior dryness of the one over the other. If coated with propolis in the interior the difference is *nil*, and all hives become so coated after a time. However, I will match this presumed advantage of the straw hive by the superior advantage of the wooden hive in point of durability; and the other I will match by the fact that I never yet heard of mice entering a wooden hive, whose entrances therefore do not require to be "narrowed so that only two or three bees can come out at the

same time," that is to say if the entrances are only properly contrived: whereas, narrow the entrances of straw hives as much as you please, you will never be secure against the entrance of mice any given night, as they can nibble the straw in a very brief time. This narrowing of the entrances of hives in winter I think a most objectionable plan, save only occasionally in very cold or windy weather. The more air that can find its way into a hive in winter in moderation, the better for the bees and for the hive itself.—B. & W.

THERE is an old saying, "The proof of the pudding is in the eating;" and after reading Mr. Pettigrew's condemnation of frame and other wooden hives, I am at a loss to understand how it was that at the Crystal Palace Show the straw skep was compared with the frame hive, "nowhere." In Class 8, "for the largest and best harvest from one stock under any system," but one exhibit appeared from a skep against eight from wood hives. The class for the best straw super of honey above 20 lbs., for which three prizes were offered, brought forward but two entries with not many pounds to spare; whilst for the corresponding class in wood twenty-eight competitors put in an appearance, half of them over 40 lbs. and one nearly 80 lbs.; and the same disparity, more or less, appears in classes of smaller weights. Suffice it to say, that with exactly the same prizes and conditions for supers, three classes each, straw sent six competitors and wood sixty-two: the disparity in gross weights was still more astounding. Thinking possibly Mr. Pettigrew is content with his 130 lbs. in the hive, without troubling for supers, I am at a loss to know why he or some of his disciples did not show in Class 20, "for the best display of comb for table use." Why, the surplus side combs from two such hives would have carried all before them; whilst the fact was, not a single entry came from a straw skep. Is not the assumption manifest that the skep-owners knew they had no chance.

Oh! what can Mr. Pettigrew be thinking of when he writes the hives used by the advanced bee-keepers of Scotland have not been altered or improved for fourscore years? In the name of conscience where is their advancement? Haa he never heard of the far-famed Stewarston hives? If not, I only wish he had been present at the Show to see the beautiful display of the purest honey and comb, all from the despised wooden hives, and to which we southerners were not ashamed to knock under. I echo the hope that many bee-keepers of England will emulate the apiarians of the north. Much may be learned from them, and perhaps they may gather a few grains of knowledge from us. Your correspondent says, if managed on the non-swarming principle, bar-frame hives are filled with brood from side to side. Could any better state of things be desired? Forty-eight thousand cells in a Woodbury hive, 48,000 young unhatched bees in their various stages, and this renewed every three weeks! Add on, say, 30,000 old ones—oh! what an army to fill a super with pure virgin honey in the whitest of comb never bred in, worth twice as much as any honey from the brood or bee-bread combs.

Mr. Pettigrew says he does not expect ever to find any other kind of hive equal to his for profit and convenience. I am not so presumptuous, and expect to find gradual improvements, which in time will render the best of our present hives obsolete; and now I say that moveable-frame hives are incomparably superior to any closed skep when used by apiarians of intelligence, and I believe that in this opinion I should be joined by nine-tenths of those who have ever given them a fair trial. "APICULA," in the Journal of Nov. 20th asserts, "At the Crystal Palace Show it is well known there was no exhibition of straw hives, therefore no comparison could be made." His assertion is wrong. Straw hives competed in four classes out of six, and comparison was made to their discomfiture; there was no reason why they should not have competed in the remaining classes. The controversy between straw and wood hives seems to me to have run into a wrong channel. I for one do not champion wood against straw, but a hive one can investigate against a hive one cannot. Have straw if you will, but don't work in the dark, even though the bees do.—JOHN HUNTER, *Eaton Rise, Ealing.*

[We have several more communications on this subject, and they shall be published as soon as possible.—Eds.]

OUR LETTER BOX.

COMMON PHEASANTS (*Alpha*).—You will have no difficulty in wintering your Pheasants. We keep our Golden Pheasants where they have no shelter of any kind. We kept them formerly where they could get under cover if they would, but they never availed themselves of it. They had perches without cover, and others in a roofed and sheltered spot. We never knew them use the latter, and when going round at daybreak in the winter we have often seen them on the outer perches with the white frost thick on their backs. They do not suffer in any way from the cold. Our common Pheasants never have any shelter. We hardly think you will do well to keep the two breeds together when the lying season comes on. We fear they will fight. Such a space as you describe, 60 feet by 15, will afford dividing, and a few Pheasant hurdles will enable you to do it at any time.

EGG PROTEINING (*Sobina*).—The accident you describe happens only to pullets. Nothing is easier than the remedy. Take a wing feather, dip it in sweet or castor oil, the latter the best, lubricate the egg membrane that protrudes and covers the egg. This will produce no action. As soon as it occurs introduce the feather between the membrane and the shell of the egg; the egg will be laid immediately. Watch the bird for a few days, and when uneasiness appears, indicated by a semi-upright position and by the tail drooping, catch her, take a feather steeped in oil, and introducing it into the egg-passages, keep on till you reach the egg, which will soon be laid. It is a disorder peculiar to pullets. You need have little trouble about the case.

HEAVIEST GOOSE AND TURKEY (*T. H. L.*).—We are unable to answer all your questions as we have to draw on our memory. We believe a Goose has been exhibited weighing 30 lbs. We have seen a Turkey that weighed 34 lbs. As a rule, the heaviest Geese are shown by Mr. J. K. Fowler, of Aylesbury, and the heaviest Turkeys by Mr. Lythall, brother to the Secretary of the Birmingham Show.

"COMMON" CLASS OF PIGEONS AT A SHOW (*A. Duffer*).—We apprehend that a good judge in judging this class would give the prize to a well-matched pair of true Dove-house Pigeons, which are properly Chequer, not as you mention, Blue with black bars. The class you name is such an unusual one that probably a judge would award the prize to the prettiest pair shown, which very likely would be some half-bred Tumblers or remote cross; but the Chequered Dove-house is undoubtedly the real common Pigeon of this country, known among naturalists as *Columba affinis*, or *Columba agrestis*, a chequered or dappled bluish bird; and a well-matched pair look very pretty. At the same time a Pigeon judge may know nothing of all this, and follow his own taste only.

DISTINGUISHING THE SEXES OF CANARIES (*W. H.*).—Cock birds are more bold and fierce in general appearance than hens and have a more bloomy plumage. Their heads are somewhat larger and longer than the hens', and they stand a little higher upon their legs. They are also more sprightly in their action. When in full vigour of song, especially approaching the breeding season, the cock birds can generally be told by (what is understood by the fancy), "blowing" them. Many fanciers can easily pick out the cock birds from the hens when in their nests. We profess to be at home on this point.

FEEDING CANARIES (*Idem*).—The food should consist of caecary, small hemp, German rape, varied occasionally with flax, millet seed, and a few groats, and powdered biscuit. Now and then a little German paste (if you know how to prepare it, may be given if the birds are kept for singing purposes. Breeding with them temporarily spoils their singing. Green food may be supplied in the spring time and during summer. In the autumn and winter months they are better without it. In the early spring dandelion (especially), and young lettuce may be given, and a little flowering groundsel and chickweed as the summer approaches, followed-up in June and July with plantain stems, plenty of which may be found growing wild. A little lettuce seed and a piece of salt the size of a bean can be supplied occasionally, both of which will tend to purify the system. No sugar at any time whilst the bird is healthy. The above dietary will suffice to keep them in good health.

AGE AT WHICH CANARIES SING (*Idem*).—Most birds commence to warble in their youth—about five or six weeks old. Like babies, when they once get into voice they make free use of it. At the above age the birds are not so free in song as when they have finished moult, which commences at about the age of eight or nine weeks, and continues the same number of weeks. After that they become free songsters, and swallow their little throats to the delight of both eyes and ears, in a very different manner to hen birds, which are deficient of that dash, style, and freedom peculiar to the cock birds. Much more could be said in reply to your questions, but we think this will suffice; at least we hope so.

METEOROLOGICAL OBSERVATIONS,

CAMDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W.; Altitude, 111 feet.

DATE.	9 A.M.					IN THE DAY.					Rain.
	Barom. corrected to 30 in. at sea level.	Hygrome- ter.		Direction of Wind.	Temp. of Soil at 1 foot.	Shade Tem- perature.		Radiation Temperature.			
		Dry.	Wet.			Max.	Min.	In sun.	On grass		
										deg.	
1874.	Inches.	deg.	deg.		deg.	deg.	deg.	deg.	deg.	In.	
Nov.	30.014	40.0	38.5	S.W.	39.0	40.0	28.4	39.4	28.2	0.112	
Dec.	29.895	33.4	31.8	E.	39.0	35.8	31.8	45.0	30.5	—	
We. 25	29.793	30.2	30.2	N.E.	38.6	34.2	28.3	42.8	26.8	—	
Th. 26	29.638	31.9	31.4	N.E.	38.9	33.1	29.2	51.3	26.3	0.960	
Fri. 27	29.610	45.5	47.2	S.W.	39.2	32.5	35.3	54.4	32.9	0.238	
Sat. 28	29.932	44.0	41.8	N.	41.3	44.4	38.2	44.5	36.1	0.372	
Sun. 29	29.276	39.7	38.3	N.W.	41.9	43.7	37.1	74.4	35.5	—	
Means	29.437	38.2	37.5		39.6	38.5	32.6	50.2	30.6	1.617	

REMARKS.

- 25th.—Rainy forenoon; looking likely for snow between 1 and 2 P.M.; damp and uncomfortable day.
 26th.—Fair, but rather dull early; fine at noon, and very bright for a short time after 1 P.M.; a very slight fall of snow at 9.
 27th.—Frosty day, but not bright, only occasional gleams.
 28th.—Fair, but rather foggy in the morning; began to rain about 2 P.M., but only slightly till 9 P.M., then heavily the rest of the day, and till midnight. Rapid fall of the barometer in the latter part of the day, the lowest reading being soon after midnight. A high wind in the night.
 29th.—Wet early, but the wind gone down; fine soon after 10 A.M., but heavy rain just before noon; fair but windy in the afternoon and evening.
 30th.—Dull morning, very dark fog soon after 11 A.M., and more or less so all day; very wet evening and night.
 Dec. 1st.—Rain in the night, but soon ceased, and it was the finest day during the week.—G. J. SYMONS.

COVENT GARDEN MARKET.—DECEMBER 2.

VERY little alteration to report in the general condition of the market. A large cargo of Pines has just arrived from St. Michael's, being the finest yet imported. The reports of blighted Potatoes from the different depôts are more favourable.

WEEKLY CALENDAR.

Day of Month.	Day of Week.	DECEMBER 10—16, 1874.	Average Temperature near London.			Rain in 43 years.	Sun Rises	Sun Sets.	Moon Rises.	Moon Sets.	Moon's Age.	Clock after Sun.	Day of Year.
			Day.	Night.	Mean.	Days.	m. h.	m. h.	m. h.	m. h.	Days.	m. a.	
10	TH		47.0	32.8	39.9	26	57 af 7	49 af 3	56 9	26 4	1	6 59	344
11	F	Michelin born, 1697.	46.5	33.6	39.5	17	58 7	49 3	44 10	31 5	2	6 31	345
12	S	Nees Von Esenbeck died, 1837.	48.0	37.0	42.5	18	59 7	49 3	18 11	48 6	3	6 3	346
13	SUN	3 SUNDAY IN ADVENT.	47.5	36.5	42.0	23	0 8	49 3	43 11	8 5	5	5 34	347
14	M	PRINCE CONSORT died, 1861.	46.9	34.3	40.6	21	1 8	49 3	after.	32 9	6	5 6	348
15	TU		47.0	33.6	40.3	19	2 8	49 3	17 0	54 10	7	4 37	349
16	W	Meeting of Meteorological Society.	46.5	32.9	39.7	15	3 8	49 3	29 0	morn.	2	4 7	350

From observations taken near London during forty-three years, the average day temperature of the week is 47.1°; and its night temperature 34.3°. The greatest heat was 63°, on the 11th, 1844; and the lowest cold 7°, on the 16th, 1853. The greatest fall of rain was 1.24 inch.

VINE-PRUNING AND WINTER-DRESSING.

IT is not to teach the learned, but the several inquiring amateurs who are now essaying the winter treatment of their Vines, and are not too confident of the procedure best adapted for their purpose, that a few grains of instruction are hereby scattered. Vine-pruning must be adapted to the age, condition, and peculiar state of the Vines. On these circumstances the system of winter pruning must be founded. There are two cardinal forms of pruning the Vine—the short spur and long rod. There are also hybrids or modifications of these; also the two plans may often be seen in combination.

Let us start with a young Vine planted in the spring with a new rod to the top of the house. "Is that rod to be cut down?" "Considering the permanent welfare of the Vine, undoubtedly." "But will not that rod bear fruit if left alone?" "Certainly, if a stout perfected rod; moreover, the best bunches will not be near the bottom, but nearer the top of the house." "Then why cut it down? If it kills itself with work it may." That is the mode of reasoning of a self-knowing man, fond of asking advice and never following it. Picking up a grain here and there, and going somewhat different to all, he gets a first show of Grapes, and glories in the result as being a "plan of my own," having particular care to emphasise the "my." The Vine stands. It carries some good bunches of Grapes, but many of the lower buds break stubbornly, some not at all, and the side growths, although pinched, are weak. Well, they ought not to have been pinched. Never mind, a lot of fruit is had, but the Vine is ruined. That is killing the goose which would have laid the golden eggs. Another instance: If, instead of pinching all the side shoots, at the base one is selected; the eye just at the bend where the cane turns down to the rafter generally breaks freely, and this allowed to grow to the top of the house unchecked, will make a good rod at the same time the other carries the Grapes. Now, if the rod-bearing cane is cut clean out when the Grapes are all cut, the young rod will be ready to bear more. That plan carried out year by year is the long-rod system pure and simple. But some may say, "Oh! everybody knows that." I beg pardon, everybody does not know; and it is just these who require the information, and to whom alone it is offered. To assume that everybody knows everything, and that descending to simplicities is derogatory to one's reputation, is the great error of the times. If everybody knows a thing, why pen a line? and if we find one who looks with contempt on a thing plainly put, depend upon it that man is a hunter after information if he has need of it. But to proceed. That plan will produce a quantity of Grapes, especially if not followed out as stated, but if the first year's growth had been boldly cut down to the base of the rafter, and a year's grace given to get root-power, that seeming year's loss is really an eventual and permanent gain.

Those who want a large quantity of Grapes in a small

space of time, and who have no reserve—nursing canes—will find this long-rod system give them; moreover, it is more than possible they will be less troubled with shanking and other ailments than by the spur system. Mind, that is for amateurs who do not understand the whole *rationale* of Vine-culture sufficiently to work without aid, and who covet a quantity of Grapes as easily as possible, regardless of the way it is produced or the appearance of the Vines producing it. By that plan the bulk of the fruit will always be at the top of the house. To obviate this, take up two reserve rods by the side of the fruiting cane. Stop one nearly halfway up, and let the other go the full length. That will fill a house with fruit from the bottom to the top of the rafters. The half-length rod may extend to the top in the year of fruiting, and it will make a fine bearer the following year. Another from the bottom, stopped halfway up, will make sure for the lower part of the house, and so the roof may be covered with fruit year by year, every bunch from wood of the year preceding, no spurs having had time to form. With a good root-power to begin with, this plan is capable of producing an immense quantity of Grapes. It is the simplest of all forms of Vine-pruning. Anyone can do it who can cut away a dead Raspberry cane after fruiting, and train one young shoot halfway up the stake for bottom fruit, and another the full length for top fruit for the next year's work. The bottom half of the rod reaching to the top should, however, be divested of eyes, and the eyes on the bearing portion be thinned out to about 15 (not less) inches apart. This can be done in the spring by disbudding, and is essential in preventing an overcrowding of foliage, the most common of all mistakes in Vine-culture by inexperienced cultivators.

Leaving for the moment the long-rod or Raspberry system, let us look at the spur plan of treatment. The young rod of the first year should, if at all weakly, be cut boldly down to the bottom of the rafter, and not be allowed to bear a bunch. Strength will thus be concentrated to produce one fine young rod which, its other treatment being right, is sure to follow, and will lay the foundation for a good-constituted Vine for permanent work. If, however, the cane is stout, strong, and well-ripened, containing not more than a speck of pith, and is hard, round, and bright, then it may be allowed 2 to 3 feet of rafter, and carry two to four bunches. It will perfect these, and make a fine extension cane at the same time without any danger of overcropping; indeed the fine cane is the proof—the safety-valve that all is right on that side, the bunches being, as it were, the steam-governors. If these press heavily, if the rod does not progress freely, relieve pressure by removing a bunch or bunches as required, making above all things sure that the steam (the sap) has a full and abundant flow upwards to form a fine extension growth of vigorous cane. After this, yearly extension may, at each winter's pruning, be shortened to about a one-fourth length of rafter—that is, if the rafter is 16 feet, leave 4 feet. In very strong canes more is quite permissible, but as a rule that is a safe approximate guide. Now these side shoots which have borne the

bunches must be shortened. This shortening forms the spurs. Cut very smooth and clean almost close to the main stem—that is, leaving only the lowest prominent eye that has had the assistance of a leaf. There can be no mistake there—the lowest eye that has a leaf at its base to be left, the rest cut away. If the Vine is in a good estate, that eye is sure to push and show fruit. If this close shaving should frighten, two clear eyes may be left; this will give two shoots, and both will or ought to show bunches. In this case always rub one off, and let it be, if possible, the one farthest from the main stem. Some people will prune a Vine for twenty years, and in that time not accumulate a spur of 3 inches, while others will add to the spur at the least an inch a year. Close pruning is the best for this reason, that the lateral flow of sap is less impeded. Why? Look at an old standard Rose and its knotty swellings by yearly cutting. Note the narrow, restricted, twisted, curling sinuosities of the sap vessels. It bears small blooms, and well it may. Cut its head off, and see the immediate gross vigour of the after-growth. The impediment to free-sap movement is removed; the narrow tortuous channels are substituted by free, open, sap-courses. So it is with the Vine or any other plant. The plant—the Rose, the Vine—may not be in a bad state of health; the roots may be sound, and the foliage not indicative of any disease; the soil may not be seriously at fault, but may be reasonably well supplied as the food-store; yet, if not breaking down by disease, the plant may come far short of the perfectness of constitution desired, and fail in the character of bloom or fruit. The fault there lies in the transit of sap of food. As in the Indian famine, Rice was plentiful while the natives starved, but, a free channel of communication being provided, the plague was stayed. I am not sure that I have seen this idea expressed before, but many an example of a stubborn scraggy tree tells me there is something in it. On that account close spur-pruning is preferred to a longer mode, which in half a dozen years results in a curled knuckled accretion of wood and tissue through which the sap can only circulate by a sluggish crawl, inadequate to the real requirements of the fruit and foliage of the Vine it is attempting to feed. But an example may be in mind that Vines with long twisted spurs bear good and satisfactory fruit. Very well. Go on with the mode that answers. Nothing succeeds like success, and never change a plan that is satisfactory by whomsoever the change may be proposed.

Before closing these notes I should like to remark in the matter of a young Vine, that I do not think the common practice a wise one of divesting a young cane of all its eyes from the ground up to the rafter—that is, not sweeping them off at a stroke the first year. The upright sashes of houses may be from 4 to 6 feet. That portion of the Vine is not often required to bear fruit; still, for a year or two it is preferable to pinch a few shoots, and have a little foliage there rather than leaving the stem absolutely bare. The rod of a Vine so trimmed never thickens in the same proportion as the upper portion of the Vine. The sap channels are contracted, and often a Vine will form a protuberance of incipient roots at the base of the rafter where foliage commences to get the nourishment it needs, and which the contracted vertical portion of the stem cannot supply. A little foliage down to the very ground will change all this. The stem thickens freely, and affords a sufficient medium of conduct for the free unimpeded sap-flow. A young Vine so managed will be as thick at the base, even thicker, than at any other part of the rod; but divest it of eyes the first year 5 or 6 feet up from the bottom, and nothing can prevent it becoming thicker at the top, like a ladder reared wrong end upwards. In that case all the best fruit will be at the top of the house; in the other it will be equally good to the very bottom. This is not theory but practice. I will refer to older Vines another day.—J. WRIGHT.

A MODEL ROSE GARDEN.

"Now that the fields are dank and ways are mire," it is not unseasonable to write of Roses of the past, for Roses of the present are now at their very scantiest. I remember meeting at the Falls of Niagara with a somewhat singular entry in one of the hotel strangers' books. A young gentleman informs the public that

Next to the bliss of seeing Sara
Is that of seeing Niagara.

Certainly next to seeing Roses in the garden, every Rose-lover will admit, is reading of them in "our Journal." On this principle I do as I would be done by. But I have long been in-

tending to write about a model Rose garden—a town Rose garden I should premise. I am resolved that its beauties shall not blush unseen any longer. Some people who have small gardens ask, How is it possible for them to compete with the owners of acres? How can a town garden exhibit at the shows against a country one? There seems to be an idea that quality has no chance against quantity. I venture to think that this is a mistake, and that high-breeding and high-feeding, where the plants are really good, will command great success, even with quite a limited number. Now, it is "wholly in the busy world," as Mr. Tennyson does not say, and not

"Beyond it, blooms the garden that I love."

As the story books begin, "not a hundred miles from one of our flourishing suburban towns," in fact, in the very middle of it, is the garden of my admiration. The ground it covers is barely a quarter of an acre, and, of course, the poor Roses cannot have quite the whole of that. Yet on this little spot grow year after year Rose bushes chiefly on the Manetti, which, as the Scotch say, are "a sight for sair e'en;" in England we should remark, which are a "caution," and certainly they are to intending competitors. At the district show this little garden holds its own, and something more, against all comers, and that in a large and wealthy neighbourhood. If the show-day at all suits it, this garden will carry off the principal prizes. At present it holds one most keenly-contested challenge cup. I do most sincerely trust the happy owner will forgive thus being made into an example; but admiration compels, for, to adopt the half-appropriate motto of York Chapter House—

"Ut Rosa flos florum,
Sic hic hortus hortorum"

I know no such garden—and I know a good many—which, in proportion to its size, grows such Rose trees and supplies such Roses. I myself can grow at least three for every one that my friend does, and yet for robust plants, for size of flowers, for substance, for excellence of colour, I hopelessly admit that I dare not invite comparison. The position of this model town Rose garden no doubt has something to do with this. It has a southern exposure, protected on the north by a long row of houses, while a low wall bounds it on the west. And such Mlle. Bonnairs, such Marie Baumanns, and all the most shy-growing Roses as I have seen come out of it, really showing "rude health," if one could say so rude a thing of a lady.

On lately taking a box of twelve to an exhibition in a neighbouring county, my friend found himself only second, though far the best in the room, because "in that Association they were not accustomed to such very large Roses!" Some who read these lines may remember that exquisite Mlle. Bonnair, a Rose now seldom seen in its excellence, which stood unrivalled at one show as the best Rose in the room; and at another time how this garden furnished two such perfect boxes of Baroness Rothschild, that the despairing Judges at last requested that one of them might be taken away—they were far ahead of everything else, and so equal, and they could not both take prizes.

In budding, the owner of this remarkable garden is even more successful than he is with "the box." His Manettis never fail. I flatter myself I can bud Briar stocks, and not lose more than a per-centage of some four or five; but my Manettis are always being smothered in too much sap, or failing to take for some reason or other. Those he puts in never fail; the veriest dormant buds, which only he himself can see, are sure to develop in a year into wide-spreading bushes. He is also fortunate in severe winters, and loses very few. And now for the secret of his success. It is very simple. The famous Demosthenes was questioned as to what are the first requisites for an orator. He is said to have answered, "Action! Action! Action!" It is possible that in our colder-blooded clime we might not quite think so; but, at any rate, I have no doubt as to what would be my friend's answer. He would reply *à la* Demosthenes, "Manure! Manure! Manure!" Deep trenching and well manuring—there is the whole mystery.

Even at the risk of seeming interminable, I must go on to mention one other thing that I have learned from him, especially as I am not aware that "our Journal" has as yet taken cognisance of it, and that is quill-budding—the art of quill-budding. The old plan, and that given in all manuals of the rosery, after taking off the bud-shield, is to pick out the wood with the budding-knife, and a dismal business this is in the hands of a beginner—it is not always easy for the best of hands. Now, instead of this insert at the upper end a sharpened quill—

nothing is better than a quill toothpick—a slight push, and presto! in an instant the wood is out, and the much-relieved bud perfectly ready for insertion! It reads like a joke, but it is a convenient reality, that one chief requisite of budding now is a bundle of toothpicks!

To conclude, all those who have large hearts and small gardens, let them be assured that with a good aspect, with well-grown plants, and high feeding, great success is always attainable. Let them take example and encouragement from this model miniature town Rose garden. It will be observed that my admiration is not altogether disinterested. The buds that I get from it are the most perfect conceivable; the beatings on show days, when they occur, are equally undeniable. In short, it may be said of this garden that which a French Marshal (Niel, no doubt), once remarked of our army, "The English infantry is the finest in the world, fortunately for others there is very little of it."—A. C.

KEEPING GRAPES—DAMPING-OFF.

I HAVE on many occasions in this Journal written strongly against fixed temperatures for growing plants, and pointed out the necessity of working according to the weather; and now I wish to say that the same rule holds good with respect to keeping fruit and flowers, although for very different reasons. "Late vineries in which Grapes are hanging to be kept at 45°," say our advisers. Forty-five degrees is certainly a very good temperature in which to keep Grapes and many other fruits, and also flowers, provided always that you can altogether keep out the external air when it gets above that temperature; but this you cannot do with ordinary vineries, and it is of no use blinking the fact that 45° inside and 48° outside, very soon means a number of decayed berries. While the temperature outside ranges between 25° and 40° keeping fruit is a very easy affair; but let it rise suddenly to 50° or 60°, it then becomes altogether more difficult.

The sudden fluctuations of temperature this autumn have been very trying for those who have to provide a large table with dessert through the winter months. On two or three occasions since the fruit was ripe we have gone to bed when the thermometer was only a few degrees above the freezing point, the sky clear, and everything appeared to foretell frost; but before daylight in the morning all has changed, and the thermometer has been up near to 50°. This happening before the Vines had scarcely ceased growing was very unfortunate, and I have no doubt many have suffered from it severely, especially where the Vines were young and vigorous. Mine suffered considerably, for although the wood and fruit were thoroughly ripened most of the leaves were green and seemed as if they could not quite reconcile themselves to the fact that it was really autumn. I almost envied some of my friends who had their leaves scorched-up by the sun or eaten by red spider, and then I bethought that I could, perhaps, give the necessary check myself. I therefore cut all the laterals back to 10 inches or a foot, and kept a dry atmosphere, when the remaining leaves very soon ripened, and all has gone well since.

Has anyone noticed that different soils give different colours to Vine leaves in autumn? Alicante, for instance, in one soil will have a beautiful soft scarlet colour, in another it is bright yellow. Gros Guillaume grown in some soils has fiery-red edges and streaks, while in others it is dotted with yellow and pink. It is the same with most other kinds excepting Hamburgs, which I believe always turn yellow. I think, but am not sure, that lime has a great deal to do with colouring the leaves.

But I am digressing. A viney containing ripe Grapes should never have a lower temperature than that which prevails outside, and as long as frost is kept out it should not be very much higher. The safest plan, perhaps, is to always keep a little fire going, but it is of the greatest necessity when the outside temperature rises rapidly; for do what we will by ventilating, &c., when the outside temperature is rising, that inside our glass houses will also rise, and if the sun is shining will rise very rapidly, and the moisture contained therein will immediately be condensed on the coldest surface, which will generally happen to be the fruit. On the other hand, if the inside temperature is much higher than that outside, the moisture will condense on the inside of the glass. If the internal temperature is only slightly higher than that outside, both the fruit and the inside of the glass will be perfectly dry, even though it rains in torrents, and you are also watering plants inside the house. Let me not, however, be understood

to recommend keeping plants inside a house which contains ripe Grapes, because with the greatest care you cannot always prevent the moisture condensing on the fruit when a sudden rise of temperature takes place, and then the greater the amount of moisture in the house the greater will be the difficulty.

Greenhouse flowers and plants often damp-off from the same cause that Grapes do—viz., the temperature of the air about them rising rapidly while the soil and the thickest parts of the flowers are still cold and consequently attract the moisture. Damping-off does not always proceed from excessive humidity of the atmosphere; it is quite possible for plants and flowers to damp-off in an atmosphere that is really too dry for healthy growth.

I feel great difficulty in making my meaning clear on the above subject, but I trust I have said sufficient to cause some of my readers to think the matter over for themselves, for I consider it a very important one.—WM. TAYLOR.

THE AURICULA.

ALL lovers and growers of this beautiful flower must be indebted to my friend the Rev. F. D. Horner for his valuable and exhaustive papers; he evidently looks at Auriculas with the eye of a lover and a critic, and one must almost envy the riches in which he revels, and also the opportunity he has of intercourse with those who are interested in the flower. We, certainly, in the far south are much less ardent, and I believe also labour under more difficulties in their growth. As the Auricula is naturally a denizen of alpine regions, the cold and breezy moorlands of Yorkshire, or even the "banks and braes" of Scotland, suit it better than the warmer valleys and sheltered nooks of the home counties. Thus, for example, this autumn has been destructive of our hopes of a good bloom next spring, or I am very much mistaken. The warm and lovely days that we had in September and October drove them into bloom so rapidly, that I am sure more than one-half of my blooming plants have thrown up autumn trusses; and on talking with the only growers I know I hear the same report from them. As these were evidently those intended for the spring bloom, I cannot imagine that I can have from these plants anything but a feeble and late bloom. Now Mr. Horner says he has had but little autumn blooming; and as we pot at the same time, I can only attribute this to the cooler atmosphere in which they are grown. The worst of it is not over, for on looking through my frames to-day I see some of my largest plants with fine large trusses coming up.

I cannot say anything of many of the new varieties which Mr. Horner mentions, but his remarks on the older sorts are so sound that I have no doubt that we may rely on what he says of them. I should very much like next season, if all be well, to visit the National Exhibition, and then to see what our northern friends are doing.—D., Deal.

WINTER CUCUMBERS.

I VENTURE to give "S. J. A." my experience of the above. The finest house I ever had was at Rangemore, Burton-on-Trent, under Mr. Bennett. Cuttings of Rollinson's Telegraph were struck in August, and grown-on in pots until the middle of September, and then planted out. Not a fruit was allowed on them until each plant had filled its allotted space, which they very soon did. No more fruit was allowed on them than was absolutely required, the foliage being allowed plenty of room to develop itself, and the male flowers kept off. We were entirely guided by the weather as regards temperature, the thermometer often being down to 60° at 6 A.M. They were never allowed to know the want of water at the root, and the syringe was seldom used; red spider and mildew being kept down by damping the walls and floor with ammonia from the gas house, air also being given them from the front of the house on all favourable occasions. Under this treatment the plants did so well that Mr. Bennett did not like to pull them up in the spring, but allowed them to fruit all the summer.—R. L. M.

LARGE CHESTNUT AND ASH TREES.—I send the measure of some fine Spanish Chestnut trees in Oak Park, Tralee, Ireland. The largest, a splendid tree, is still in full vigour; its stem measures 17 feet 3 inches in girth at 3 feet from the ground, and 13 feet 9 inches at 12 feet. The second tree measures

11 feet 4 inches at 3 feet from ground. The third 11 feet 10 inches at 3 feet; and the fourth, blown down, measures 13 feet at 3 feet from the soil, and 10 feet 10 inches at 11 feet. They all have the appearance of being perfectly sound. There is also close to them a common Ash with enormous spreading head; its trunk measures at 4 feet from the ground 13 feet in girth.—H. VINE, *Gardener*.

ICE HOUSES AND ICE HEAPS.

["D" and other correspondents having made inquiries on these subjects, we reprint the following from a communication received from the late Mr. Robert Fish.]

Fig. 144 is a section of the egg-shaped well as commonly built, with a trap drain from its bottom, and the bottom covered over with logs of wood and rough brushwood for a depth of a foot or 18 inches. It is furnished with a passage and a door outside and inside, so that the space between them may be filled with straw. As will presently be seen, we prefer

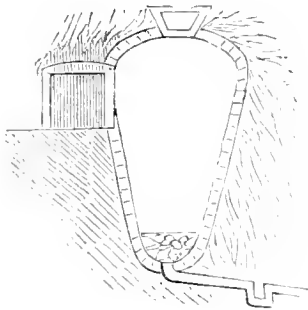


Fig. 144.

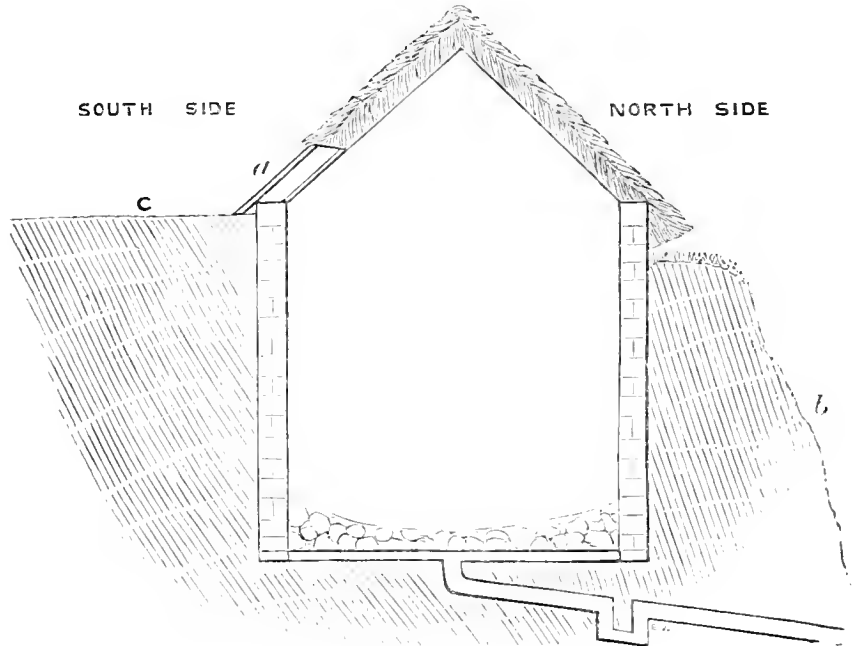


Fig. 145.

a, Double doors.

b, Steep bank.

c, Surface line.

doors were on the south side of the roof, the ice never failed. The roof was formed of 12 inches of thatch, and then fully a foot of close heath or ling. The ice was pretty well beaten outside, pitched in at the doorway, and then pounded down inside. Nothing as a house could be more simple, or keep ice better; and, the ice being taken from clean water, venison, game, &c., were kept in the house for long periods untainted.

Where dryness may be secured there need be no objection to sinking the well wholly below the ground. In soils retentive of moisture care should be taken to prevent the outside moisture penetrating through the walls, by building them in cement, ramming clay round the wall, with tar next the wall, or raising them partly, or nearly wholly, out of the ground. It is quite a mistake to suppose that to keep ice well you have merely to get it into a hole beneath the surface of the ground. On an average the earth will be warmer all the year round at the depth of the bottom of the well than at the surface. All moisture getting to the wall would melt the ice; the moisture that would ooze out from a wall above the ground would actually cool the interior by evaporation.

I have not had any ice houses entirely above ground under my own charge; but I have noticed how well the ice kept in several, though, as far as I recollect, half as large again as the size mentioned above. I remember one house above ground that was built with double brick walls, the walls being separated 12 inches from each other, with a door in each wall opposite each other, about 5 feet from the ground level. The top of

a double wall instead of a single one, with an open space between of from 9 to 12 inches. The opening shown at the top is of great importance for filling the well, where the position of the ground will admit of it. If a layer of clay can be rammed against the outer wall it will be an improvement. The ground around the well should be shaded with trees and evergreens.

Fig. 145 is a section of one of the simplest and best ice houses I have met with. As far as I recollect, it was built square, with stone walls 16 inches thick, enclosing a square of 16 feet by 18 feet deep. One side abutted on the level of a field, and the opposite one on a deep sloping bank, the base of which was below the bottom of the ice well. The ground being light the drain was of little use, as the moisture escaped at the bottom. The ice was carted along the level meadow to a platform at the doorway. There were two doors; the outside one was of stout deal, on hinges which enabled it to fold back on the roof. The corner one fitted loosely in a groove, and this door was lined with woollen cloth. Though these

the house, steep and cone-shaped, was thatched to the thickness of 18 inches, and extended beyond the walls for a couple of feet. The outside thatch got covered with mosses and lichens, and there was a dense shade of trees over all. A temporary staircase led up to the doorway, and a stone staircase inside led to the bottom of the house. The ice was pitched in from the carts, and broken inside, and it kept remarkably well. The great secrets in this case were the double walls and the enclosed space for air between them. Of all non-conductors of heat, enclosed isolated air is the best. Neither what we call heat nor what we call cold has the power, to any great degree, to pass through it. I recollect once noticing in the end of June the thermometer in the shade against the outer wall of such a house indicating 77°, and another thermometer on the wall inside the ice well ranging from 32° to 34°, but we shut the doors behind us.

In sunk wells this double wall is just of equal importance. The outer one prevents the heat of the soil affecting the ice. I met with a nice example of this some time ago. An old-fashioned ice well had been so built, and answered remarkably well. In course of time three or four ice tubs had to be supplied at the mansion instead of one—everything in summer had to be cooled with ice—and the supply, from the house being opened so often, was not equal to the demand. The supposed genius of the establishment counselled the removal of the inner wall, which would at once make the house about 3 feet wider from top to bottom, and set at liberty so many thousand bricks

for other purposes. What could seem more feasible? and accordingly it was done, and the house well filled the next winter; but the enlarged house was emptied fully six weeks earlier than it used to be before. Since then the waggon-loads of straw packed against the walls inside, and the trouble, would soon cost more than the double wall, and, after all, with far inferior results. Few things are better non-conductors than straw, especially if not much bruised by the flail or threshing machine, as every space between the joints is so far a sealed-up air-tube; but let that straw get thoroughly soaked inside a house, and its non-conducting powers would not only be gone, but vapour always rising from it would keep a damp fog always resting upon and melting away the ice. I have no faith, therefore, in straw as a non-conductor inside a house unless it be kept dry. I have a large house which, when filled, generally secures pretty well a two-years supply; that, too, had been built, I believe, with hollow walls, and the inner one was removed, before I knew it, to increase the size; but I soon gave up using packings of straw, having come to the conclusion that, on the whole, from getting damp it did more harm than good. When either a stone, brick, or wood house is raised partly or wholly above the ground level, covering the single wall, whatever it is, with from 6 to 9 inches of straw neatly fastened on the outside, and with the eaves of the roof projecting far enough to keep that straw dry, will be the best substitute for a double wall; and if the ears of wheat are removed, so as not to entice birds or mice, the straw will last a number of years.

Thus by using hollow walls, or a non-conducting medium, it will be seen that regular ice houses may be as well partly or wholly above ground as below it; and in the circumstances of soils retentive of moisture, much better above than below. When so built, and near the mansion, they could be turned to many useful purposes as respects keeping meat and vegetables with more economy as to ice than when the ice has to be brought in pails and barrowloads to the house.

So much for the place: now for the filling. The chief thing is to get ice from good clear water, and pound it well outside, but chiefly inside, of the house. If the water is not clean the ice will be unfit for preserving many things where fine flavour is an extra consideration. Every space of air enclosed between pieces of ice will hasten the decay of the ice whenever these spaces can gain access to the air above them. When filling in frosty weather it is a good plan to use a little water for filling up the crevices, which soon freezes the whole into a compact mass. All ice with leaves and pieces of wood in it is to be rejected if better can be had, as they will make a sort of free space round themselves long before the summer is past. In packing it is advisable to keep the centre the lowest, and the outsides the highest, so that the moisture contained may find its way to the centre and there be frozen, instead of passing through the ice at the outside and escaping. This same rule should also be attended to in taking the ice out of the ice house. It is impossible to break the ice too fine—the more like sleet and snow the better, and the firmer packed the better. This is even more necessary when the house for keeping it is small.

However built, the sides must not be too steep, or the coverings will not be easily kept on. When finished as firmly on the sides as possible, it is advisable to wait for a frosty night before covering it; and if that should not come a good shower will do it good, as it will make the outside a dense sheet of ice.

Snow rolled in heaps when well consolidated, and a little water used to enable the workmen to compress it, is little inferior to ice, either for ice wells or ice heaps. When a good fall takes place, and there is an open park to go to, it is easy to get a great quantity of it when fresh fallen, or when there is a slight thaw. When hardened, however, a little on the surface with frost or wet, it is vain to attempt to roll it into heaps.

The heap being made and finished, the next thing is to cover it up securely. A layer of 3 inches or so of clean wheat straw should be placed all over it. After that, when possible, the covering next the straw should be of an open nature, and the very outside rather of a close nature. Provided the outside air does not penetrate, the more air enclosed between the outside covering and the ice the better it will keep. Thus, after the straw, we have seen 9 inches of rough stubble put on, and the outside formed of 9 inches of tree leaves. Again, we have known small spruce or larch faggots used above the straw for a foot in depth, and then a thatching of straw from 9 to 12 inches thick, and both answered well. Where tree leaves

can easily be obtained, I would prefer 3 or 4 inches of clean straw, and then 6 inches of leaves at first, increasing the amount gradually to 12 or 18 inches of leaves, according to the heat of the summer. When these are once settled it takes a very strong wind to dislodge them, and if the sides are moderately steep rain passes freely down the outside without penetrating to any extent. If the above amount of leaves were put on at once, they might be liable to heat. Vermine rather dislike burrowing in the tree leaves. Any other substance will do, provided the same conditions are observed.

One thing we must guard against, as a cause of failure. Some people, extra careful, put a rough frame over their ice, and the covering over it. I never saw one case in which such a mode answered well. When the ice sinks the frame does not sink with it, vacancies are formed between the ice and the coverings; these get filled with moist vapour and melt the ice, or sometimes holes are also formed in the covering, by which the warm air outside has free entrance to the heap. By placing the covering at once on the ice, the covering sinks as the ice sinks, and no space is given for damp vapours, nor yet much chance for any openings being formed. At any rate, I have never seen these kindly-intentioned rough frames used but disappointment more or less was the result. It would be better to construct a wood house at once, and have an air-tube in the roof and doorway. In heaps nothing should come between the ice and the covering.

One word more. When ice has to be taken to the mansion for various purposes, the preserving of it as long as possible is a matter of some importance. Ice tubs are, therefore, very useful for the superintendent of the kitchen or the cellar. They may be made of any size or shape. We have a very useful circular one near the cellar, 3 feet in diameter at bottom outside measure, 30 inches in diameter at top, and 3 feet in height. The bottom is formed of wood some 4 inches thick, the sides of the same 3 inches thick, lined inside with cork 1 inch thick. It is supplied with two lids, one thick, and similarly lined, that fits into a groove, so as to be on a level with the circular outside; the other to go over that, and come down a couple of inches over the outside. It used also to be lined with woollen cloth, but that seemed to be of little consequence. It is painted outside of whitish colour. There is a small iron vessel fixed inside that would hold somewhere about two gallons of water; and, there being a pipe from it communicating with a tap outside, there is always a ready command of ice water during the summer. Bottles of wine, &c., are merely placed among the ice. Though this tub stands in an airy place, the ice keeps a good while if the lid is not often opened.

AMERICAN BLIGHT ON APPLE TREES.

My employer, John McInnes, Esq., having bought Heath Bank two years ago, we found the Apple trees in a sad state, literally white all over with American blight. We were at a loss to know what to do with them; we tried spirits of petroleum, which killed the pest at once. The petroleum is applied with a painter's brush to the part of the tree that is affected with the blight; it may be applied to the whole of the tree without injuring it in the least, as it evaporates soon after being put on. After getting rid of the American blight we cut out all the cankered wood, and this year the trees have made new clean wood full of fruit buds, and no bug to be seen. I think the adoption of this remedy would be a great saving in nurseries, where I have seen hundreds of young trees with the bug on them. I think train oil is very injurious to any tree, though I have seen it recommended in a previous Journal. The petroleum has been tried by several gardeners here with the same result. We have a Louise Bonne Pear on a wall covered with scale. I intend trying the petroleum on this tree in the spring, and will let you know the result.—I. POWELL.

MESSRS. SUTTON'S STAND AT THE SMITHFIELD CLUB CATTLE SHOW.—The principal contributors to the stand of Sutton and Sons are:—Her Majesty the Queen; H.R.H. the Prince of Wales; Lord A. Hill; Lord James Butler; the Earl of Warwick; Lord Bridport; Lord Calthorpe; Admiral Sir G. N. B. Middleton; Sir H. Dashwood; Sir Paul Hunter; John Walter, Esq., M.P., and Professor Buckman. The roots exhibited are those to which were awarded the principal prizes at the Royal Berkshire Root Show, 1874, and include specimens of Sutton's Mammoth Long Red Mangel, weighing upwards of 40 lbs. each, and to which has been awarded the first prizes at the Birmingham Show for the past six years, those grown by Sir G. N. B.

Middleton being especially noteworthy. Sutton's Berkshire Prize Yellow Globe Mangel weighs 35 lbs. each, grown by Mr. Jas. Messenger, Alton, and some of the same variety grown on the Earl of Warwick's estate, Heathcote Farm, Warwick, which produced the extraordinary crop of 84 tons per acre, the heaviest ever known. Sutton's New Golden Tankard Yellow-fleshed Mangel grown by R. W. Hall Dare, Esq., weigh 28 lbs. each. This variety produces more saccharine matter than any other, and Messrs. Sutton were awarded the gold medal of the Highland Society for its introduction. Sutton's Improved Champion Swede, some weighing 18 lbs. each, grown by J. F. Burrell, Esq., This Swede has since its introduction been awarded no less than £2800 in prizes. Sutton's Yellow Intermediate Mangel, a variety especially suitable for shallow soils, weighing 30 lbs. each. Sutton's Imperial Green Globe, and Sutton's Purple-topped Mammoth Turnips, two varieties originated by Messrs. Sutton some few years since, and valuable for main crop and late feeding. Grass seeds for all soils are represented; also seed Potatoes and a very interesting collection of all the principal kinds, including Sutton's Red Skin Flourball, and Sutton's Hundredfold Fluke.

MR. PEARSON'S GERANIUMS IN 1874.

In giving my estimate of the different Geraniums we have used for the embellishment of the flower garden during the last summer, I will first take the Scarlet section.

Among our old favourites we have nothing that has stood the weather better than Douglas Pearson. It began to bloom as soon as it was placed in its position on the flower beds, and throughout the season it was a glorious sheet of bloom. It is a very fine dark crimson, with large trusses, free bloomer, and very dwarf and compact. Bayard has maintained its previous good character. Wm. Thompson is much of the same colour, a Hybrid Nosegay; is rather stronger-growing than the two preceding; just suited for the back row in a ribbon border or for massing in large beds. Mr. Loase, of Mansfield Woodhouse, considers it the most free-blooming and the most effective Geranium of the older varieties. Mrs. Mellows and the Duke of Devonshire of the same section have also been good. Coming to such as have not been so long in commerce among the orange scarlets the greatest favourite is Corsair, and there is no doubt but it will remain a popular variety for years to come. In some notes I contributed to "our Journal" last year I spoke in high terms respecting this Geranium, and this season it has more than justified all I have previously said in its favour. It is, without exception, the best Geranium in its class of colour that has been introduced for flower-garden decoration, and it is equally valuable when grown in pots. At Hardwick Hall, the residence of the Marquis of Hartington, Corsair stood pre-eminent. Mr. Wilson, the highly-respected head gardener, considers it an invaluable adjunct to the flower garden. During the summer of 1873 I was much in favour of the Rev. T. F. Fenn, but the last summer it has scarcely been so good. One bed of it was all that could be wished in the early part of the summer, but the latter part of the season the flowers were lost too much among the foliage; however, I have propagated it extensively, and shall give it a trial another year. Shakespeare has been good; the flowers are borne on stout footstalks, and the habit of the plant is dwarf and compact.

Of pinks, Amaranth is greatly admired for its singular colour and fine truss; and Mrs. Holden, not possessing such a deep shade of lilac, has also immense trusses which stand both sun and rain. Through June and the early part of July we were hardly satisfied with Amaranth, but many of our plants had been raised from cuttings in March and April, and were only small ones at the end of May. This confirms what your correspondent the Rev. C. P. Peach so repeatedly advocates—that of planting strong plants in the spring. When they had made a little growth and became established they bloomed with the utmost freedom, and more than realised our most sanguine expectations. When we removed them from the beds the last week in October it was with great reluctance, so fine were the remaining trusses of bloom and so grand the colour.

We have discarded all our old pink varieties, such as Christine, Maid of Kent, &c., to make way for Amaranth and Mrs. Holden. There are other shades of pink all good and useful, especially Mrs. Flytch, Mrs. Musters, Mrs. Tait, Florence Durand, &c., but Amaranth and Mrs. Holden take the precedence with us. Mrs. Young, Contessa Quarto, and also Mrs. Musters, are pre-eminent for conservatory decoration.

Passing by many other valuable varieties I come to the seedlings of 1872 which were sent out early in the present

year. Anyone possessing that batch might consider themselves fortunate, for they are a great advance on any of their predecessors. We have not tried them in the flower garden, as we only bought one plant of a sort, but we can bear testimony in favour of their good qualities for indoor work. Mrs. Turner is remarkable for the immense size of its truss; and Lady Emily Pierepont, a beautiful delicate shade of pink, is the sweetest thing that Mr. Pearson has yet sent out. Cruger has fine-shaped flowers, a glowing scarlet suffused with pink—quite a model of perfection. Miss Maud Holden, rich brilliant scarlet, and John Watson, fiery crimson, the individual flowers being 2 inches across. Then among the various shades of pink, scarlet, crimson, and rose I may mention Mrs. Gibbons, an improvement on Amaranth; Col. Wright, fine habit; Laura Walter; H. R. Clifton, large bold truss; Caxton; Arthur Rogers; Lucy, bright rosy pink, quite a gem; Sibylla, immense trusses; Nelly May, salmon shaded with scarlet; and Miss Blanche Storey, delicate pink with a light eye. These are all of sterling worth.

I made a hasty visit to Chilwell on the 27th of October. Although it was so late in the season I not only saw in a large span-roofed house the best of previous years, but the house was more than half-filled with seedlings raised in 1873, to be sent out early next year. Many who have seen these Geraniums have loudly set forth their praises as decorative plants; not only in the summer and autumn, but in suitable houses they will continue to bloom profusely on to midwinter. When I saw this house on the above date it was quite as gay as when I have seen it in previous years during the bright days of August, and in a note from Mr. Pearson on the 2nd of December, he stated it was then as bright as ever. All the new varieties were conspicuous for much larger and bolder trusses, and the individual flowers were more round and perfect, such as would pass through the ordeal of a florist's examination. How they will answer as bedding plants time will prove, but from the compact habit of many of the plants, and the strength of the footstalks and the substance of the petals, they cannot fail to be valuable additions to the flower garden. I will mention a few.

Mrs. T. F. Fenn, much of the habit and colour of Amaranth, a more intense lilac pink, and the individual trusses larger, with plain green leaves. Ethel, a slight zone in the leaf, large lilac flowers. Annie Orton, of the same colour but a darker shade, very much like Amaranth, far surpassing it in all respects. Lucy Bosworth, Lady Byron, and Mrs. Rogers may be classed together as bright rose pinks with light eye, and in our note-book we have put them down as the greatest march out. Charles Smith and Sir H. S. Stanhope are dark crimsons, the darkest I have ever seen, possessing immense trusses. Douglas Pearson, an old favourite, falls into utter insignificance by their side. Mrs. Whiteby, scarlet with white eye, pretty zone, dwarf and compact habit. Mrs. Leacroft, orange red with a white eye, a very distinct variety. Earl Manners, fine dark crimson with light eye, firm leathery petals, is very good; also Dora Charlton, Laura and Archibald Henderson may be classed with Earl Manners for colour. Lady Stanhope, red orange—Mr. Pearson guarantees this to be the finest bedding variety he has yet raised. Mulberry, dark plum colour, a Nosegay of a superior type. Mrs. Jacoby, fine bold truss, colour a mixture of salmon, pink, and rose, which baffles our ingenuity to describe. John Gibbons, habit of old Tom Thumb, dark scarlet, fine bold truss, flowers of immense size; one of the largest Mr. Pearson has yet raised. It is likely to be much sought after for exhibition purposes. Rev. F. Atkinson, rather a darker shade of scarlet than the preceding, trusses very large. Ellen and Miss Strachan, fine salmon, a great advance on this shade of colour, flowers very perfect. Miss Louise Smith, purple rose with massive firm petals of wonderful substance; very fine. Mrs. Joseph Paget, beautiful rose, of satiny texture, fine truss, and good habit. Mabel Eden, purple rose, some shades deeper than Mr. Pearson's Rose Bradwardine. John Fellows, rosy crimson, bids fair to be a first-rate bedder.

Those who think new seedling fruits and flowers come almost by chance, have little idea of the expenditure of trouble and cash Mr. Pearson's seedlings have cost him. Visitors to the Chilwell Nurseries have seen the thousands of Geraniums raised each season from seed, but very few have any idea that every one of these was raised from a flower crossed by his own hands, for no one is ever allowed to interfere with this his favourite pursuit. I have heard him say that if obliged to leave home for a day, he cuts off every bud that is likely to

bloom in his absence. I think the Chilwell Geraniums prove that a determination to keep none but really good things must pay in the end, for some years since I think that only two flowers were kept and named out of six thousand seedlings, and now so much is the breed improved that the kinds I have named were all raised in one year. Years ago many thought there was no further room for improvement in Zonal Geraniums, but who when admiring the Maid of Kent could so soon anticipate a Lady Emily which was sent out last spring, or a Lady Byron which has to be sent out next year?—QUINTIN READ, *Pleasley Vale Gardens, Mansfield.*

GARDEN LABELS.

I THINK with your correspondent, that a cheap and excellent label might readily be manufactured of white porcelain with the lettering burnt-in. Plants in pots are usually sent out from nurseries with a wooden tally, on which is either a number or the name of the plant, too often indistinctly written. The adoption of "AMATEUR'S" suggestion would be a real boon to the horticultural world, and it is a matter for surprise that it has not been carried out long since.—SUBSCRIBER.

I WOULD recommend the following method of preparing labels for plants:—Cut pieces of zinc to the size and shape required, stamp the holes, paint them white, when perfectly dry write with a blacklead pencil. Of course the better the writing the more elegant they will look. But I prefer wood to zinc, as I have seen the paint come badly off the zinc with the heat of the sun, &c. The wood can be cut to any size, or shape also. Paint them white, when dry write with blacklead pencil, then varnish. If this is properly done they will keep beautifully for many years in either hothouse or garden.—WILLIAM LAURIE, *Gardener, Lynnwood, Stirling.*

THE most legible mode is to print the names so that they can easily be read without having to step on the beds or border. But now comes the query, What are they to be done with that will last and stand the weather? We want something that is lasting but clear, and can be plainly seen at a passing glance, and that I am afraid is out of our capacity, unless we apply to the crockery manufacturer or some sort of enamelling. But we must not despair if there is any reliance to be placed in what I have now before me, and that is a scrap out of a Boston journal, the substance of which is as follows:—For zinc labels take of verdigris and sal ammoniac two drachms, lampblack one drachm, water 4 ozs., to be well mixed in a mortar, adding the water gradually. It must be kept in a glass-stoppered vial. Write with a quill pen on the zinc with the ink, after shaking it well, and after it is dry you may expose it to the weather or bury it in the ground for years, and it will be as legible as when first written.—THOMAS SHEASBY, *Hare Hill Gardens, Macclesfield.*

I USE labels made of glass, and write the name of the plants upon them with a diamond, or they can be written upon with a blacklead pencil when they are required for flower seeds or for one season only. For espaliers or wall trees I drill a hole through one end of the labels, so as to suspend them with copper wire, or nail them to a wall with copper nails. If nails are used they should not fit the holes too tight, nor should they be driven quite home, so as to allow the glass to expand a little when warm. Made plain without holes the cost per label would not exceed 1d. each; with holes about 2d. each. Small labels could be made for pot plants at about 6d. per dozen.—ANOTHER AMATEUR.

[Our correspondent has sent us specimens of all the kinds, and they are the most attractive we have ever seen. They are more than one-eighth of an inch thick, and being of frosted glass they can be written on with a blacklead pencil, and the writing easily washed off and renewed or changed.—EDS.]

I THINK if "AN AMATEUR, *Fifeshire*," will try five grains chloride of platinum, dissolved in 1 oz. of distilled water, and write with it upon zinc labels first rubbed with emery paper, he will have one of the best and most enduring labels. I have known these labels buried more than two years, and found the writing perfectly legible.—W. B. H.

[Of zinc labels the best forms that we have seen are those prepared by Mr. Yeast, Mortlake, Surrey; they also have the

merit of being very cheap. They are substantial, and give plenty of space for writing.—EDS.]

LIFTING AND ROOT-PRUNING FRUIT TREES.

No. 6.

PEACH, Nectarine, and Apricot trees, as also the Plum, which are all upon the Plum stock, are often when young very free in growth, making long sappy shoots which do not ripen well, though sufficiently so for continued growth, but not for the formation of fruit-buds, and the trees are consequently for some years unfruitful. I had some of all three kinds planted four years ago this autumn, and one-year trained, which in three seasons' growth covered on walls a space of 9 feet high by 10 feet width, one Apricot tree outstripping all others, having in three years occupied a space of 12 feet by 16 feet. These trees are in a free, open, rich, light soil. I have others in a stronger and firmer soil, which from the time of planting, also four years ago, have made much shorter-jointed firmer wood, ripening perfectly, and producing fruit from the second year, whilst the others have fruited but little. The trees in the heavier and firm soil have not grown more than two-thirds the extent of the trees in the freer soil, and the fruit produced is not compensating, as they are not better furnished with bloom-buds for their size than are the others one-third larger. Both are plentifully furnished with them, and next year the larger trees will afford—I am guided now by experience—one-third more fruit than the smaller trees, and make up at once for the want of bearing in the preceding two years. They will in seven years from planting cover the whole of their allotted space, and will be made to fruit right away now, whilst the others will not have covered theirs under ten years, probably a dozen.

I know it is not considered good practice to manure trees at planting and encourage growth by a rich soil, as it tends to make them unfruitful and unhealthy. This is unquestionably true of the Apple, Pear, and Cherry on the free stock; they grow quite freely enough without a rich soil—even become gross when the soil is heavily manured at planting, but for trees on the dwarfing but free-rooting stock, whether they be Apple, Pear, Cherry, Plum, Apricot, Peach, or Nectarine, a good dressing of manure thoroughly incorporated with the soil is the best thing that can be done to give them a start. It seems to me strange for a tree to be pinched for support whilst it is young, the object being to get it to fruit at an early age; but I cannot admit that a young fruit tree furnished into maturity when it is young will have other than small sap vessels, nor that it will be as capable of transmitting through its stunted growth as good a supply of food as a tree that in youth has grown freely, or be nearly so healthy.

It is admitted that Vines fruited heavily in the early years of their growth do not give such good after-results as those which are very sparingly cropped the first two and three or more years. The early and heavy-cropped are so enfeebled as to be of little value for some years; they seldom if ever recover so as to equal in result those which during the first two, three, or more years were allowed to make headway and obtain a firm grip of the soil before they are permitted to bear a full crop; in fact, if they are allowed to carry a full crop the first year it is advisable to throw them away. It is also granted that the fruiting size of Vines is not so good for permanent planting as those which have been grown a shorter time in pots, and have not such stout, short-jointed wood, and the eyes very prominent—have neither the roots so cramped nor stimulated by high feeding producing wood in a season as thick as a finger in degrees of thickness from the fore to the little, and eyes like nuts. It is known that the fruiting canes are not so good for planting as the moderate-sized ones; they may produce greater results for a time, but in the end are not so serviceable as those planted of less size. Even within the past few years the practice of growing them in pots at all for planting permanently has been departed from by no less an authority than Mr. W. Thomson, the young Vines being raised in beds and so planted in their permanent position with their roots originating directly from the root-stem instead of being made to form every conceivable angle and curve around the inside of a pot, which the planter tries to straighten at planting.

If early-bearing—growth which results in fruitfulness, and in Vines results in after-enfeeblement—is it not equally applicable to other fruit trees? I think it is; and yet whilst we have to guard against a system which by starving or a firm

soil induces fruitfulness by staying the growth, we have to guard against the opposite extreme of grossness—rank unripe growth. The shoot of a Peach, Nectarine, Apricot, or Plum may grow as thick as the little finger, and six or more feet long in a season, and yet be healthy. A shoot may start away strongly, and before it has grown a foot give evidence of grossness and ill-health. Such shoot left to mature will have the appearance shown in *fig. 146*. At its base, for a foot distance or more, will be formed wood, triple buds, and single fruit

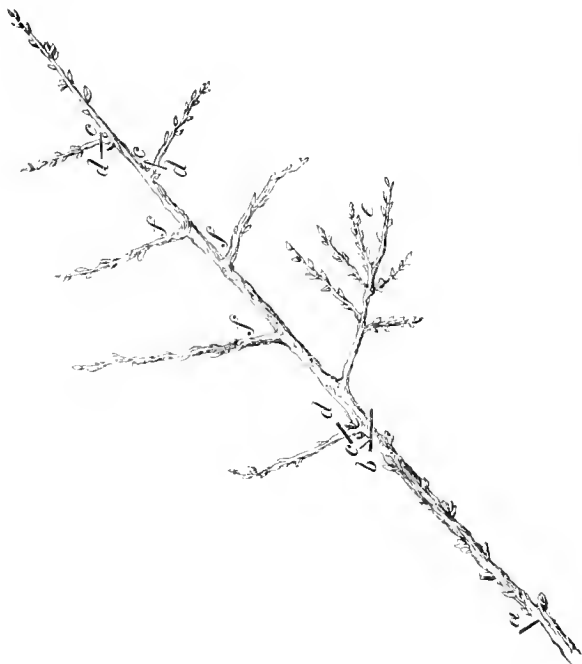


Fig. 146.

buds, as shown from *a* to *b*; but after it has grown that extent it will put out laterals, and, if very gross, at every joint, and at a considerable distance apart—often 3 to 4 inches. These laterals are of two kinds. One has buds at its base *c*, and these buds are as good, so far as growth is concerned, as the buds from *a* to *b*, the shoot being cut off at the bar *d*; but if the shoot or lateral be left it will form, after it has grown 6 inches or so without a leaf, have along it single wood or fruit buds, or it may put out sub-laterals as at *e*, becoming as the head of a tree in miniature, yet not small either. A shoot as *e* is of no use, as it has no eyes at its base, nor have *f*; and as we have four of those, which may be 4 inches apart, we have 16 inches of branch without means of originating side shoots (except those existing), and bearing wood at a proper distance apart.

It would be folly to give rise by richness of soil to wood as above described. It is the surest road to the formation of an ugly tree if such growth be not restrained, and, as it will appear sometimes, the best remedy is at once, when the trees are making growth, to cut back to *b* (*fig. 146*), which will result in either a cessation of growth for the season in that part of the tree, the sap being appropriated by the other and weaker parts, or cause a shoot to arise from the wood below *b*, and this trained-in in the place of that cut away, any other shoots arising on the same branch being cut-in close. The laterals, as before stated, having eyes at their origin to be cut as *c*, and there is in such a case no necessity to head-back the shoot either in summer or at the winter pruning; for it is a murderous practice to cut back the shoots of the year half that they have grown, and should be practised only to originate shoots for furnishing the tree duly with branches. The wood above described is common to the Peach and Nectarine in a young state and when very vigorous, but is more frequent in trees on walls in a rich open soil and where the climate is cold, and being produced late in the season the wood does not ripen. Under glass it does not so much matter, as the strong shoots can be shortened with a prospect of the growths resulting being ripened; whereas outdoor growths, such as the one

described, are not so easily subdued, and are best avoided, as they may for the most part be, by using a moderately firm soil, which causes slow feeding, slow growth, and stont short-jointed wood.

Though extreme richness in soil is bad, a poor soil is equally disastrous. Gum and canker are a consequence in the former when it is sought to restrain growth by the knife; weakness with dying-off of the branches the result of the latter, with miserably small fruit. A good rich soil is what I prefer to plant in; and if the trees grow too strongly, making sappy growths which do not ripen, by resorting to lifting it may at any time be restrained. The object of a rich soil at planting is to get the trees to cover as much space as possible in a short time; for the fruitfulness of all the subjects on the Plum stock after moving, is one of the most marked results of lifting known. The soil can hardly be too rich if it is firm; and if the trees grow too vigorously, or they are wanted to fruit, lift. It does not matter if the Peaches and Nectarines produce in a season shoots 4 feet long, Apricots those of 5 feet, Plums of 6 feet; the Apricots and Plums by lifting will the following year be studded from end to end with fruit-buds, and the Peaches will give short stiff shoots masses of fertility. I do not, however, advise that Peach trees should have so rich a soil as for Plums and Apricots, but if it is rich it must be made firmer than for the others, so as to lessen the tendency to produce laterals. So long as the trees do not produce laterals it does not signify how long and strong the shoots which are to form the branches are. The bearing shoots which are only of annual duration, growing one year and fruiting the next, then giving place to others, require to be stiff and short-jointed, stopping them at the length during growth to which they are usually shortened at the winter pruning. What we want of Peaches is vigorous main branches, with shoots along them for bearing at about a foot apart, but Apricots and Plums we want studded with spurs throughout.

For the first three years I do not consider we can calculate upon much of a crop from the trees named, they not being furnished with shoots and branches for bearing, but requiring them. We can hardly have them in less time, but we may obtain trees two or three years trained, and in a bearing state, which are very different to young trees, being, perhaps, equal to trees that have been grown three years, but they will not do so well, though they have fruit buds to begin with, for a year will be required to establish them, and very often another to get them into proper order for carrying a crop. Trees in a bearing state are very good if you have them on the spot, and can move them with a mass of soil as well as roots; but if they have to come from a distance, the tree with plenty of growing wood is infinitely better than one with many fruit buds. They take about as long to establish as it takes to grow a tree one-year trained into a bearing state, and are fit only for burning when they have not been frequently lifted.—G. ABBEY.

ELECTION OF FRUIT TREES.

I WRITE briefly to say how valuable I think the proposal made in a late number of your Journal, that the recent interesting and useful election of Roses should be followed up by having elections of other things in the gardening world. Within the last fifteen years I find I have planted upwards of 350 different kinds of Apple, Pear, and Plum trees selected from various catalogues, &c. After trial I am now sensible that I have lost much time and planted many useless trees. I have had to prove all these trees for myself, and have had much trouble in regrafting the inferior kinds. I believe I could comprise in a list of forty or fifty every tree among the lot that is worth growing in this locality. Such an election would save many others from making the mistake I did, and from being at the trouble and expense of proving the trees for themselves. For myself I am tired of experimenting with unknown trees. I seldom now ever buy a tree. I graft for myself only those kinds that I have found to be good. The results of such an election would enable me, however, to discover if there were any good bearing kinds both as to quantity and quality which I did not possess.

In conducting such an election of fruit trees I should think it would be necessary to divide it into two parts; or rather have two elections, one for the south and middle of England, and one for the north of England and Scotland. It probably would be necessary also to take votes as to wall trees and standard trees, and as to dessert and kitchen fruits respectively.

Then such elections might be afterwards carried out as to

other fruits, such as Cherries, Peaches, Grapes, Gooseberries, Strawberries, &c., also as to certain shrubs and flowers, such as Rhododendrons, Hollyhocks, Dahlias, &c.

It might be difficult and perhaps presumptuous for any private individual to carry out such elections at his own hands, but if the Editors of your periodical could undertake it, or could name parties suitable for the duty, and thereafter publish the results in your columns, it would prove both interesting and useful to your numerous readers.—AN AMATEUR, *Fifeshire*.

[Another correspondent, "C. T. H.," urges an election of Apple trees. We cannot undertake to arrange returns from the fruit-growers of our islands, but if anyone will undertake the task we will aid him in every way within our power. Will our correspondent oblige us by a list of the fruits he has elected for *Fifeshire*?—EDS.]

A REMARKABLE COLLECTION OF NEW CROSS-BRED GRAPES.

It was the writer's fortune this fall to examine a collection of new hybrid Grapes, of such remarkable characteristics and superior excellence, that one may be justified in calling it the choicest now extant in America.

Ten years since Mr. James H. Ricketts, of Newburgh, New York, owning a little cottage and garden on the hillside in the city, with practical love of horticulture, in the leisure moments spared from his business occupation began the study and experiment of hybridising Grapes, both native with foreign, and foreign with each other, and testing their seedlings in the open air. If there were any place more unfavourable for such a test we have never seen it. In the summer time with exposure to intense heat; in the winter to severe cold, with ground poor, and sloping to the north-east, it seemed as if any Vine that succeeded here ought in all fairness to do well in the average climate of the United States. His experiments have yearly grown in interest, and the fame of some of his successes have already been known to some of the most observant horticulturists; still it has remained to the trials of the present fall to give a reliable verdict. His methods of hybridising are of course known only to himself, but all kinds of experiments have been tried, the pollen sometimes being kept till two or three weeks old, and then applied. Again, the caps have been taken off four days in advance of the time usually taken by nature. One other person in Canada, pursuing his trials, studies, and experiments in almost the same track, has yet made a complete failure in every case, and where the secret of Mr. Ricketts' success can be doth not yet appear. It is sufficient only to judge of the results as we now find them. Mr. Ricketts' collection may be divided into three classes:—1, Black Grapes. 2, White Grapes. 3, Wine Grapes. There are now seventy-five seedlings in all growing in his garden, and of them all, we may truthfully say not one is an inferior variety. A large portion of these Vines are but two years old, some three to four, while but few are older. Still, the sorts which exhibit most marked excellence are the older varieties, and the newer ones develop traits more valuable with each year of increasing age. About one-quarter of the collection may be classed fully as hardy as the Concord, and the rest not yet fully determined, although they have been largely exposed to the winter for the past two years without suffering injury.

The Secretary is a large, beautiful, black Grape, which has already become known. It originated with Mr. Ricketts in 1867. The original Vine fruited the next year after the seed was planted. It is a seedling from the Clinton and Muscat Hamburg. A large Vine is trained upon a trellis near Mr. Ricketts' house, and some of the bunches were nearly a foot long and well shouldered; the flavour is excellent, sweet, vinous; bunch hangs well, berry firm. Good market sort.

It is a little curious to note here the following incident: Mr. Ricketts taking one day to Charles Downing seven of his seedlings, and requesting an opinion, was surprised and delighted to find him class five of them as better in flavour than the Muscat Hamburg itself. An opinion from so high a source gives decided character to the value of the collection.

The finest white Grape of the collection is No. 93, A. Imperial, a white seedling from Iona and Sarbelle Muscat. The berry is very large, of a fine white colour, with considerable bloom; bunch quite large, regular, with slight shoulder; no pulp, no seeds, splendid flavour, with traces of the Iona Muscat aroma. Vine exceedingly vigorous grower; ripens about

the time of the Isabella; oldest plant is now four years. Mr. Ricketts has given me the pleasure of bestowing upon it a becoming name, which in honour of its superior merit I now name "The Imperial," for it seems thus far to be the best White outdoor Grape yet originated. Perhaps its most valuable feature is its hardiness; standing the winter well when Concord was killed.

No. 207, H.—White Grape, slightly yellow, quite sweet, thick pulp, bunch nearly as large as the Catawba. A seedling from Concord and Allen. Vine now two years from seed, and bearing this season five bunches; fully as productive as the Rebecca. From the same origin came other seedlings, all of uniform excellence.

No. 72 B.—A seedling from Hartford Prolific. Black, rich, red pulp, musky flavour, sweet, pulp small, very productive; ripens between the Concord and Isabella.

Don Juan.—A very large bunch, amber berry. Parents, Jena and General Marmonica; very hardy, ripens with Isabella, vinous, but not very sweet, bears a few very large bunches.

No. 37.—Vine is four years old; bears forty bunches this season; extra large berry; a seedling from Concord and Jury Muscat, exceedingly productive, a good market Grape, carries well, berry firm, soft pulp, flavour fair, not sweet. A very strong-growing sort.

No. 176.—Dark amber colour, six weeks earlier than Iona, flavour sweet and richer than Iona. A seedling from Delaware, but has more life and spirit than its parent; in size of bunch also superior.

Clinton Seedling, No. 6.—Foliage wonderfully hardy, thick pulp, slightly acid, but exhibits strong vinous quality, and in the wine-scale test it ranks ahead of the Delaware; immensely productive.

No. 186.—White, seedling from Clinton, considered a good wine Grape, large berry.

No. 207, B.—A capital eating Grape, white, sweet, very hardy, extra stout canes, beautiful coloured fruit, bunch moderate size, loose but well shouldered.

No. 12, B.—Black, bunch extra large, 1 foot long, one shoot often bearing three bunches, strong canes, wonderfully hardy, moderately sweet and vinous, thick pulp. Consider it an extra good variety; the sweetest grown in the collection.

No. 12, A.—Has more juice, less pulp, and really more enjoyable as a family Grape.

Adelaide.—Black, sweet, vinous, strong, heavy foliage, thick leaf, as large a berry as the Union Village, good bunch, very productive.

Ricketts' No. 1.—Plump berry, very large, long bunch, very firm, keeps growing till cut off, not a sweet flavour, still not acid.

No. 157, D.—White, seedling from Concord, earlier than the Hartford by ten days to two weeks, thin skin, large berry, round bunch, sweet flavour, juicy, wood like the Concord, very hardy.

No. 157, A.—A brother of 157, D.—very late.

No. 158, B.—Black, transparent, loose bunch, large, excellent flavour, juicy, quite as good as Senasqua.

No. 14.—White, seedling from Isabella and White Tokay, ripens with Isabella, largest of all the white varieties; hangs firmly, both bunch and berry firm, tough skin, quite sweet, bunches extra large, some will weigh nearly 2 lbs.; really a first-class variety.

Quassaic.—Black, very regular bunch, a seedling from Clinton and Muscat Hamburg; novel flavour; a trace of the Clinton, but more pleasant; no more acid than is agreeable; its fine looks and its firmness are its best characteristics. One of the prettiest Vines ever seen, filled with large bunches; one Vine has grown as much as 25 feet from a young plant in a year.

Concord, No. 1.—Enormous berries, each a mouthful, flavour moderately vinous and sweet; when well ripened quite pleasant; large, well-shouldered bunches, moderately productive.

Raritan.—An accidental seedling; best wine Grape in the world; was tested with thirty and forty others, including Delaware and Walter, and ranked 112; The Walter marked 3½ per cent. acid; Raritan marked six per cent. No European variety has ever ranked as high in the wine scale as this.

No. 10.—Very good flavour, juicy, large plump berry, hangs on firmly, tough skin; seedling from Hartford and Purple Damascus.

Advance.—A natural wine Grape; the only wine Grape which has a natural effervescence; a good eating Grape, very

regular bunch, large berries, black, tremendously vigorous, hardy, and astonishingly productive; a first-class Vine.

In view of the fact that the Iona does not succeed here, and the Diana has to be plucked off, so as to leave but one bunch to a shoot to ripen well, it seems as if Vines like those described above, with such excellent flavour and vigorous characteristics, must be destined to a celebrity of more enduring character than the average of new American varieties. From our own personal examination we can honestly state not one of all the white sorts exhibits a favour as inferior as the Martha, and they are uniformly larger in berry and bunch. Neither was any white variety less pleasant than the Croton in flavour, and but one possessed a slight musky perfume of the black Grape; neither was inferior to Concord, although many not so sweet; while even if no other sorts were deemed valuable as table Grapes, the acquisition alone of Raritan and Advance as wine Grapes would mark an era in the Grape history of the United States.

It is necessary to express all opinions with caution, for the history of horticulture in the United States has too many records of death-blows to enthusiasm over new fruits which fail when transferred to localities beyond the place of origin; yet, every active horticulturist will rejoice with pleasure at such signal advance in so new and promising an addition to the pomological treasures of the country. Mr. Ricketts' collection is a valuable one financially—\$10,000 would be a fair estimate of its worth, and we trust they will soon be disseminated and he will receive their full value.—HENRY T. WILLIAMS (in *The American Horticulturist*).

FLOWERS FOR OUR BORDERS.—No. 45.

ECHEVERIA RETUSA.—BLUNT-LEAVED ECHEVERIA.

In its general habit the *E. retusa* agrees with the other members of the genus, but the radical leaves are neither so regular in form nor arranged in so perfectly rosette-like a manner as in *secunda* and some others. When young they are acute, but become ultimately extremely blunt and irregularly scalloped or creuate, and bordered with brownish-purple.

The flower stem, which is also stained with purple, but of a brighter tint, grows from 1 foot to 18 inches high, the blossoms being produced at its summit in a dense, drooping, branched panicle, which becomes gradually more erect as the flowers develop themselves. These are externally of a rich crimson-scarlet colour, covered with a delicate bloom, and internally of an orange-yellow; they continue expanded some days before fading, and as strong plants will produce several flowering stems, a succession of blossoms is maintained for two or three months in winter, a season when flowers of much inferior interest to the *E. retusa* are generally highly valued.

Its cultivation is of the simplest character; sandy loam enriched with a little leaf mould, or even sandy loam by itself, if not of too sterile a nature, will be found sufficient for its requirements. It is hardly necessary to state that the pots should be well drained to one-third of their depth at least, for this is an indispensable condition to success in the treatment of succulents.

It may be more important to observe that the flowers of the *Echeveria retusa* being produced in winter, it will require more water at that period than those species which flower in summer and autumn. During its period of growth, which succeeds that of blossoming, it may also be kept in a moderately moist condition; but after this is completed, which will occur about the end of July, water should be withheld, and to facilitate the ripening process the plant may then be stationed out of doors in a sunny corner for a month or six weeks at least, but must be protected from rain, though slight showers will do no harm. This exposition will be but a poor imitation of the dry season of the tropics, but it will at any rate be more conducive to the production of flowers than a permanent occupation of the window. If the plant be then removed about the middle of September to the sitting-room, and cautiously watered, it will hardly fail, after the lapse of a few weeks, to throw up its flower stems.

Increase is easily effected either by the offsets, which may be severed and treated as cuttings, or by the stem leaves, which are readily detached, and will root freely if, after being dried for a day or two, they are pressed into a pot of sandy soil. The leaves of some of the species will throw out fibres from the back if simply laid on the soil, as in the case of the *Gloxinia* and other plants; and it is to be presumed that those of *retusa* will root in a similar manner. Flowering plants are, however, produced more speedily from offsets, and as these

are formed in some abundance, the leaves need only be employed when a considerable number of young plants is required; in either case they are best taken in spring or early summer, so that the whole of the warmest months of the year may be available for the rooting process.

As an element in the formation of the geometrical beds now becoming so popular in certain quarters, or for other outdoor uses, the *E. retusa* is less desirable than some other species, such as *secunda* and *secunda glauca*, *metallica*, and its hybrids, but as a winter bloomer either in the greenhouse or the window garden it deserves to be kept in view.



Fig. 147.—*Echeveria retusa*.

With one or two exceptions all *Echeverias* are natives of Mexico, from which country the *E. retusa* was introduced about thirty years since by the collector Hartweg, who transmitted seeds to the London Horticultural Society. The cauline leaves of all the species deserve a passing notice for the curious manner in which they are attached to the stem, the leaf adhering by its surface near the base, but so slightly as to be easily detached without any apparent injury to the entire if care be taken.—(W. Thompson's *English Flower Garden*, Revised by the Author.)

THE CEDAR OF LEBANON.

IN ANSWER to "A SCHOOLMASTER" we can only reply that he may employ as the Cedar's botanical name either *Abies Cedrus* or *Cedrus Libani*, for modern botanists use each of these designations, and if we went back to earlier writers we should have to quote names still further differing. We have also to warn our correspondent not to tell in his lecture that "its wood is the outside of our blacklead pencils," for that outside is wood of the Red Cedar, *Juniperus virginiana*.

We have many letters consequent of those upon "the oldest in England," and asking for such various fractions of information that we will answer them in a continuous narrative.

It is a superlative of all plants named in the Bible. It is called there "the tree of the Lord," a name, to whatever applied, which there signifies what is most excellent. It was assumed to be the first and grandest of the vegetable world, or, as Solomon's botanical knowledge is described, as included between the Cedar and the Esob, a Moss common on the walls of Jerusalem. Dr. Tristram, after visiting Mount Libanus, has written that "the wood of the mountain-grown Cedar of Lebanon is much closer in grain and darker in colour than

that of trees grown in England. It was used by David in building the king's house, and by Solomon very largely in the erection of the Temple, and of his own palace; in the latter in such abundance that part of it was called the House of the Forest of Lebanon. The trees were felled and shipped from Tripoli and Gebal (Jebeil) by the Phœnician artificers of his friend Hiram, King of Tyre: 'The men of Tyre and Sidon also brought to Joppa Cedar trees from Lebanon for the second temple.'—Ezra iii. 7. It was also employed by Herod for the roof of his temple, and of it is constructed the dome of the Church of the Sepulchre at Jerusalem at the present day. The men of Sidon were celebrated for their skill in carving Cedar, a pre-eminence they still retain.

"Besides the grove of Cedars near the Kadisha, celebrated and described by every traveller, there are many other groves,

clumps, and even whole tracts of Cedar forest scattered throughout Lebanon. As they are for the most part in the northern and most inaccessible districts, they have escaped the notice of most travellers. Several were discovered by ourselves, and some have been added since. At least nine distinct localities are now ascertained, some of them containing many thousand trees, and with an abundant succession of young saplings springing round them. But few, if any, of them can show any trees equal in size to those of the famous grove.

"The Cedar grows rapidly and lives long. Even in England there are trees not yet two hundred years old measuring 21 feet in girth, as at the seat of the Earl of Wemyss in Gloucestershire.

"Dr. Hooker calculates the age of the Cedars of the grove to be eight hundred years, from the rate of growth of the

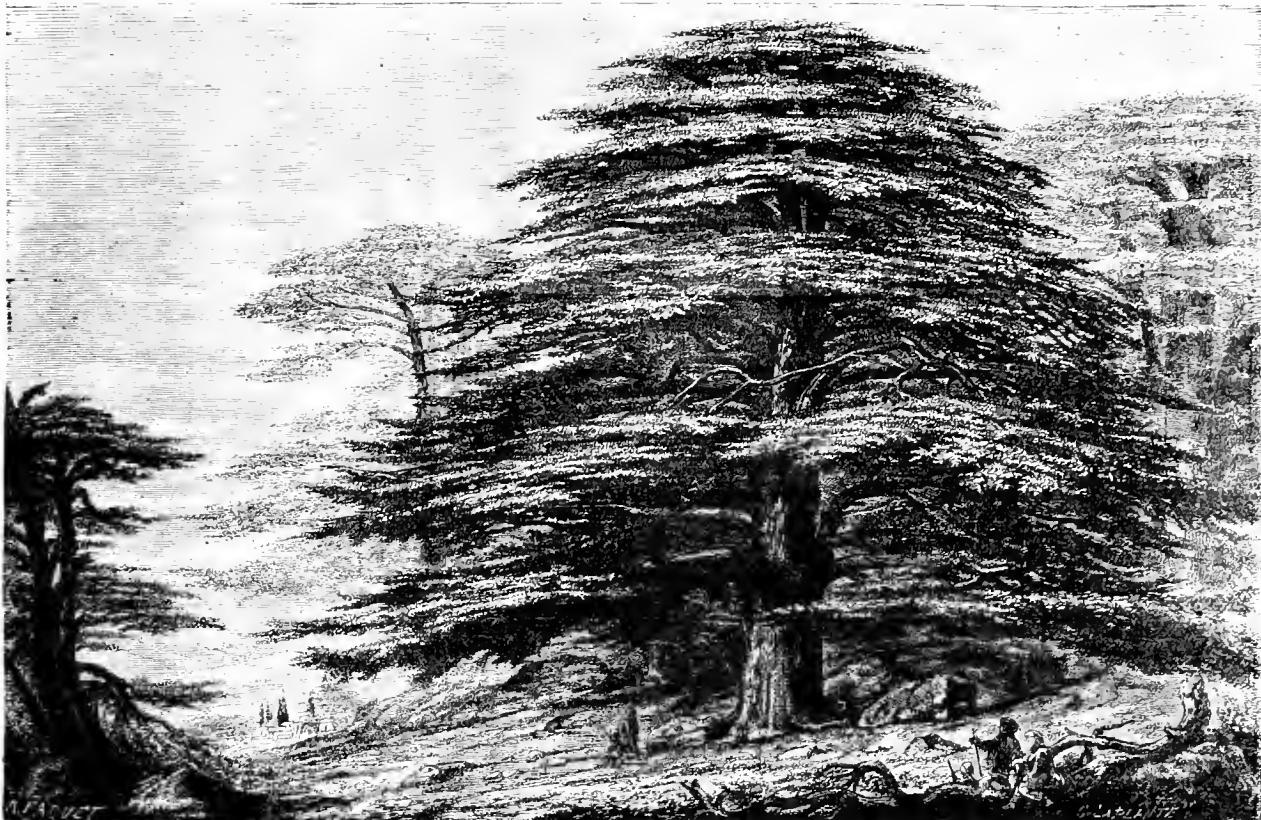


Fig. 148.—THE CEDAR OF LEBANON.

Chelsea Cedars. From the rings in a branch one of the older trees might be 2500 years old; but this, he observes, is no doubt widely far from the mark. Still an immense antiquity must be assigned to some of them.

"The Cedar is not found in any other part of Palestine, not even on Hermon, the Anti-Lebanon, or the highest forests of Gilead. It extends, however, into Asia Minor, being plentiful on the Taurus range."

We have a list of sixteen travellers who have visited and counted the giants of Libanus, and they show their gradual extinction. Peter Bellon found twenty-eight in 1550, Maundrell sixteen in 1696, and Richardson seven in 1818. Maundrell found that the trunk of one was 36½ feet in girth, and its boughs covered a circle 111 feet in diameter. In 1720 the boughs of one extended over a circle of 132 feet diameter. One of the most recent visitors of those Cedars, Lord Lindsay, found one, the trunk of which, following the sinuosities of the bark, measured 63 feet in circumference. Lamartine and others believe these patriarchal trees to have lived in biblical times. They are sacred even in the estimation of the Arabs, and by the Christians of all sects resident in their vicinity. A festival called "The Feast of Cedars" is celebrated on the day of Transfiguration.

In the "Gentleman's Magazine" of 1779, a communication from Sir John Cullum, of Hardwicke House, near Bury St. Edmunds, gives details of the Cedars of celebrity in England, details which have been frequently quoted from without acknowledgment by more recent writers. In Essex we remember noble specimens at Faulkborne Hall, and there was of them a noble avenue at Toppinghoe Hall, planted in the time of the Stuarts, but felled for the sake of the timber in the present century. Two Cedars planted about 1683 by Sir Hans Sloane in the gardens of the Apothecaries at Chelsea were large and celebrated; but one, if not both, are now dead. In 1793 the trunk of the largest was 13 feet in girth all but half an inch.

In the Palace or Manor House of Enfield, Dr. Uvedale, who there kept his school, planted a Cedar about 1670. In 1793 its trunk was 12 feet in girth at 3 feet from the surface.

We have a letter from "a Bradfordian," relating to another ancient Cedar, from which letter we extract the following:—"Mr. G. Abbey wishes to know about one planted by Dr. Richardson, of Brierley Hall, near Bradford; I therefore forward an extract from the *Bradford Observer Budget*, in which I have marked what he wished to know.

"In front of Brierley Hall stands a majestic Cedar of Lebanon, which was sent as a seedling to Dr. Richardson by

his friend Sir Hans Sloane. Although within the last fifty years some of the large lower branches have been broken off by the heavy snows, this is, perhaps, the oldest and largest Cedar of Lebanon in the kingdom. Of late years the ungenial atmosphere has begun to tell seriously upon the dark evergreen foliage, but it is still a tree of mark among its fellows. The year in which it arrived as a young plant is not known, but it would be probably about the year 1705. At first the doctor kept it in his greenhouse, but observing that whatever strength it gained during summer was lost during the winter, he resolved to risk it outside, and there its noble and graceful form has stood ever since. The tree was measured in 1812, when at some distance from the ground the trunk measured 12 feet 8 inches in circumference. At a recent measurement we found the circumference to be 14 feet 8 inches. The height is about 18 yards. It deserves notice that the second hothouse erected in England was built for Dr. Richardson, and by the same workmen who erected the first at Oxford, near Liverpool."

We have the following relative to the Cedar mentioned by Mr. R. Hayward, at a place near London, where a large garden party was given:—"He saw it in the grounds at Belmont House, Mill Hill, near Hendon. It is now twelve years since that party was given, for I was the gardener there at the time and recollect seeing several gentlemen stepping the dimensions of this fine tree, probably Mr. Hayward was one of them. I took notes of its size while there, which I have just found in my scrap-book. I make it 38 yards in diameter, and about 60 feet in height. The trunk I did not measure, because its branches started out within a foot or so of the ground, and it could not be measured fairly. I know it is a fine tree and generally admired by everyone. At the time I was there it had lost many branches, and those remaining furnished the tree well, but they had to be propped up to keep them off the ground. I wrote to the present gardener for the measurement, which I hope he has sent to the Journal, as such a fine tree should not go unnoticed.—T. RECORD."

The present size differs rather from that which Mr. Record states, but this may be accounted for from the lapse of time. The gardener now there, Mr. T. Nunn, informs us that the Cedar's height is 68 feet; diameter of the circle of outspread branches 111 feet; girth of trunk at 1 foot from the ground 20 feet 2 inches, and at 4 feet 18 feet 6 inches.

NOTES ON VILLA AND SUBURBAN GARDENING.

Now that the leaf is off, and all necessary protection given to those things that it is intended to leave out all winter, the beds not occupied with plants should be trenched up roughly to allow the frost to penetrate and pulverise the soil. With regard to manure, it is not always advisable to add that at this time of the year, but leave it to be put on when the beds are turned up for the last time, as I contend that the soil should be frequently moved if the weather will allow; and again, the soil of many beds is quite rich enough to grow most of the ordinary bedding plants without adding manure oftener than once in three years, and then not that which is rough and strong, but is well decomposed material, and more after the nature of light rich mould.

At this time it may be as well to say that those beds filled up with evergreens or any other plants should always have the fresh soil and manure added in the spring while the beds are being prepared for their summer occupants. Failing to do this has been one strong reason for saying that summer bedding plants have not been found to thrive after being filled up for winter decoration.

No doubt, also, there is a drawback in not being able to turn the soil up, and the action of the weather, and other things of smaller importance operating against the well-being of both winter and summer plants; and as there are several plants, such as the different sorts of *Euonymus*, *Laurustinus*, *Box*, as well as many of the annuals used for spring bedding which root most vigorously during the time they are in the beds, and therefore exhaust the soil to such a degree that unless something fresh is added no summer bedding plant can be expected to thrive satisfactorily; therefore it is easily seen that where both winter and spring bedding is carried on, be it ever so small a way, a special preparation is necessary for summer work.

Give Rose buds a coating of manure. These are plants that will be benefited by a strong rich stimulant, and if laid on the surface of the ground now it acts as a protection, and can be dug in after the severest weather is over. Tea Roses or any other choice tender sorts had better be carefully lifted if their loss is apprehended, and place them in a sheltered corner where they can have a little protection. They may be planted again in good fresh soil about March, and may be expected to bloom well.

Plant Briars as soon as possible. Where it is intended to raise a few stocks by budding next season, choose those with

clear straight stems, with spreading fibrous roots if possible. Those with thick clubs to them seldom live to thrive long, and generally produce a quantity of suckers to everyone's annoyance. The recent heavy rains have indicated very plainly where there is imperfect drainage; and as it is not possible for plants even of the hardiest nature to thrive in a wet soil, see to adding more drains at once, and repair old ones. Where there is the chance make it a point to decide upon what planting there is to do or shrubs to remove, and do it at once. The benefit of this timely operation will be seen in next season's growth.

The weather which has of late precluded the possibility of giving all the attention that plants in frames require, having now become open, it will be the better if they are looked over and all dead leaves picked off. The surface of the soil should be stirred, and a search made for the little green caterpillar which many complain are eating holes in their *Geraniums* and other plants; they are difficult to find, being of the same colour as the leaf, and the best method of discovering them is to give the plant a good shaking over some white paper or run the hand up the under part of the leaf, and they will generally drop off. Water everything very carefully at this season; and all ordinary bedding stock will be best kept rather dry than otherwise, and at all times give air if the weather will admit of it with safety. In the greenhouse and conservatory the same rule of admitting air must be carried out, only as these places will contain good decorative plants, some of them in flower, a temperature of 45° must be kept up; and if there is necessity for a fire and to keep it up, open the top light 2 or 3 inches, and let out the impure air that is so likely to accumulate there after the house has been shut-up for some time.

The next month or six weeks will be a critical time for all such plants as an amateur is likely to grow, and the greatest care should be taken not to let them grow too fast; and in watering it will be an advantage if they can have the water applied in a tepid state. By such plants as *Camellias* in pots, or those planted out and just coming into flower, plenty of water will be needed, and about twice a-week tepid manure-water given; this will assist them to open their buds more freely and regularly.—THOMAS RECORD.

DOINGS OF THE LAST AND PRESENT WEEKS.

HARDY FRUIT GARDEN.

THE frost has become very severe—too hard, in fact, for digging, except where some rough litter was placed upon the ground previously. We had wheeled some manure on to the Raspberry quarter, intending to dig it in on the first opportunity, but the manure is so hard that it would not be at all desirable to dig it in at present. There has been much controversy amongst scientific men about the proper application of manure to crops, some contending that it should be taken fresh from the yards, spread over the ground, and dug in at once; others that it should be thrown up into a heap, and allowed to ferment until all the rank steam is thrown off. In digging or trenching the open quarters at this time for next season's crop it does not matter much about the stage of decay at which the manure has arrived, as, should it be rough, a good deep opening can be taken out, and if the soil is heavy, the rougher the manure is so much the better; but it would not do to dig such into the open spaces amongst fruit trees. If the soil is heavy, rotted stable manure is the best stimulant. In light soils cow and stable manure is the best, as the trees in such soils suffer much from want of moisture at the roots, and when cow manure is used the ground is always closer in texture, and the moisture is not given off so rapidly. We use a fork when digging the borders, and merely stir up the surface sufficiently deep to cover the dressing of manure that has been applied to the surface; but before doing so the trees should be pruned, and if necessary cleaned.

For a few years the caterpillar of the Lackey Moth troubled us, but this seems now to be pretty well eradicated; but we shall never get it completely destroyed while Quick hedges and Apple trees in the immediate vicinity, over which we have no control, are allowed to become the pasture ground of myriads of the caterpillar every year. It may be as well to hint to those who had it on their trees last year that the eggs may now be found glued firmly in circles to the smaller branches of the trees. The circles are usually about a quarter of an inch wide; these should be closely searched for when the trees are being pruned. They ought to be thrown into the fire, or in some other way effectually destroyed. We have not yet managed to discover the Apple-borer in his winter haunts. This is now the most destructive enemy we have to contend against, and if we could ascertain the exact time and manner of his transformation we could possibly destroy it in the egg state. American blight should also be destroyed by dressing the parts attacked with boiled oil. It is dangerous to smother the branches with the oil, as it will frequently kill not only the buds, but also the smaller branches.

Our pruning was done during the autumn months; but in

many places if pruning is done at all it has to be done in winter. The present is very suitable weather for getting all such work done, as after a thaw a terrible mess is made by the necessary treading upon the borders. Espaliers require to be carefully fastened to the wires with good tar string. Old branches frequently become crowded with ugly spurs, which by continued pinching and cutting-back have become overcrowded with wood and but few fruit buds; frequent thinning-out is necessary under such circumstances. The wall border has been dug up after being well dressed with manure as a preparation for an early crop of Peas and Potatoes; but no winter pruning or nailing has yet been done to the wall trees.

KITCHEN GARDEN.

Put in a batch of pots full of Sea-kale into the forcing house, plunging them overhead in cocoa-nut fibre refuse. This is an excellent material for such a purpose when it can be obtained. Our method of procedure is to plunge the pots (and the most suitable are those denominated 8's, they are 11½ inches diameter inside measure) to the rims, then invert another pot the same size over this one, and fill-up with the fibre refuse, so that the whole are quite covered.

We do not force Asparagus very early, if we did it would be by heated pits and not hotbeds. Very often the roots of the Asparagus are injured by overhot manure. When plenty of fallen leaves can be obtained then the heat is more uniform, does not become overheated, and is of longer continuance. Three 3-inch pipes will be amply sufficient to heat a bed 8 or 9 feet wide if placed about 18 inches below the surface. The pipes ought to be covered over with brickbats and some rough litter, straw, or freshly-cut turf over that to prevent the soil from mixing with the drainage; any sort of mould will answer to plant the roots into. Except in favoured districts Lettuce and Endive ready for using are best protected in glass frames. The border of a light orchard house is also well adapted for them; even hand-lights keep the leaves dry, and consequently better able to resist the attacks of severe frost. Mustard and Cress should be sown at intervals of eight or ten days, and the pans or boxes placed in any of the forcing houses.

FLOWER GARDEN AND SHRUBBERY.

In favourable weather any alterations may be proceeded with. It has been necessary to re-arrange the shrubs in the gardens here two or three times during the last ten years; sometimes the plants become too much crowded. A bed of Hollies and another of Rhododendrons that were planted for early effect soon became too thickly placed, but the superfluous bushes came in very useful as single specimens or for mixing amongst other shrubs. We do not attempt to transplant in very wet weather or in a frost. The best way to lift any tree or bush, if it is too large for a man to move it, is to dig round in a circle from the bole of the tree, and after working down deep enough the ball is undermined with a digging-fork, and a mat or two fastened firmly round and under the ball enables the plant to be lifted bodily out without injuring it in the least. The different varieties of Aucuba ought to be planted universally, especially in the neighbourhood of large towns. We have many male and female specimens. The females are annually loaded with berries without any artificial impregnation of the flowers. It is almost labour in vain to plant in poor gravelly soil without any previous preparation. If there is not from 2 to 3 feet of good soil the gravel should be cleared out to that depth, and good loam put in to place round the roots. No leaves or litter of any kind should now be allowed in the dressed grounds, the lawn swept and rolled weekly, and any weeds on the walks may be picked up by hand in mild weather.

GREENHOUSE AND CONSERVATORY.

We are washing glass and woodwork, cleaning and arranging the plants. Very little water is required at this time for many plants; those with leaves, such as Cinerarias and Calceolarias, suffer if allowed to become dry. Zonal Pelargoniums ought to be quite dry before being watered. The first appearance of aphid on Calceolarias is the signal for the fumigator; but no such pests should be allowed on any class of plants. It is sometimes not necessary to fumigate the house, as only a few plants may be attacked. When such is the case, a good plan is to use a small brush to dislodge the insects.

Crowea saligna is a very useful conservatory or greenhouse plant for supplying cut flowers. It continues in flower for two or three months, and requires the same treatment as most of the New Holland plants. *Statice profusa*, if the flowers are cut off in the summer months, is an excellent winter-blooming variety, but it is liable to be attacked with mildew. Dusting with sulphur on its first appearance is an effectual remedy. Many other greenhouse plants are subject to the attacks of this insidious pest, and must be watched for very closely.

Pruning Pot Roses.—These are not pruned all at the same time, but at stated intervals; but before pruning allow the soil in the pots to become rather dry, to prevent bleeding.—J. DOUGLAS.

TRADE CATALOGUE RECEIVED.

Lawson Seed and Nursery Company (Limited), 106, Southwark Street, London, S.E., and 1, George IV. Bridge, Edinburgh.—*List of Forest Trees, Shrubs, &c.*

TO CORRESPONDENTS.

* * All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

BOOKS (*Pomona*).—The "Fruit Manual" is in an advanced state towards completion, and the forthcoming edition will be a great enlargement of those that have preceded it. The price at which it will be published has not yet been fixed. (*H. A. P.*).—The "Garden Manual" contains instructions upon Vines and general gardening. It may be had by post from our office for 1s. 8d.

CAMELLIA BUDS DROPPING (*I. R. B.*).—Read our answer to another correspondent last week.

CANKER APPEARING (*G. C.*).—Your Apple trees have probably rooted into the gravel, which induces canker. Trenching and making the soil deep are no advantage; to render fruit trees healthy and productive their roots should be induced near the surface and to extend horizontally. We recommend you to have all the descending roots cut away, and manure the surface annually to tempt the roots upwards.

GRAPES SCALDING (*E. G.*).—The answers we have given embody the opinion of first-rate fruit-growers as well as our own. You will never be answered unpleasantly. We believe that the application of tepid liquid manure persevered in during the whole period of growth would prevent the gangrene. However, if you will state your case again fully, and tell what has been done by you without success, we will submit it to a good authority.

ORCHID SEED SOWING (*H. W.*).—The seed should be sown in pots filled with the usual Orchid compost, the pots being half filled with crocks, and then filled-up with crocks, chopped sphagnum, and fibrous brown peat, raising the material, well mixed, high in the centre of the pots, and pressed very firm. Give a good watering, again press, and then dispose the seeds upon the surface, and give a light dusting with silver sand. If a kind which requires a block of wood, use one prepared in the usual way, and dispose the seed upon it. The pots or block should be placed in a close frame in the house which is moist and shady, and can be kept moist by very light sprinklings through a very fine-rosette syringe, not giving any air until the seeds have germinated, and then only at night, gradually insuring them to the air of the house. It is questionable whether the seed you save will be good, but of course you can test it, and with sound seed and care you may succeed in rearing plants.

NEGLECTED STRAWBERRY PLANTATIONS (*East Dene*).—The plants having formed masses of roots in the spaces between the rows, we should take out the rows of old plants, leaving the runners in the spaces, they being well rooted; then thin out so as to leave about three good plants in the rows at about 15 inches to 18 inches apart. Manure the spaces between the rows and about the plants, leaving the manure as a top-dressing during the winter, and early in March point it in with a fork, but not going deeper than 3 or 4 inches. The runners will give you finer fruit than the old plants, and from them you may secure runners for new beds. Secure such runners early next summer, pegging them down so as to have the plants well rooted for planting early in the season; the earlier the better.

GARDEN INFESTED WITH SLUGS (*Idem*).—Give a dressing of quicklime in mild weather, when the slugs will be near the surface, at the rate of a hundred bushels per acre, and after lysing a few days dig-in, or, if the ground is already dug, point it in with a fork. It is best applied early in autumn or in March. You may supplement it with a dressing of salt, at the rate of twenty bushels per acre, in March, or prior to putting-in the crops.

SEEDLING CALCEOLARIA CULTURE (*H. A. P.*).—They could not be better than in the frame at a foot distance from the glass, which is quite near enough, and having in the frame a cooler and moister atmosphere than in the greenhouse. We should leave them there as long as you can give them room and can exclude frost from the frame; but if you cannot safely do this remove them to a light, airy, and cool position in the greenhouse. Report them if necessary; do not allow them to become pot-bound.

VINES MILDEWED (*Idem*).—The leaf you sent us is badly mildewed. We should dust the leaves with flowers of sulphur, and keep the atmosphere cool and dry, removing the leaves as they turn yellow and burn them, pruning as soon as all the leaves have fallen, and burning the prunings. After pruning the Vines and freeing them of the loose bark, dress them with a composition of soft soap, 1 lb. to a gallon of tobacco juice, adding flowers of sulphur to bring it to the consistency of putty, and with this dress the Vines in every part, brushing it well into the angles and crevices, but taking care not to rub off the eyes.

TREATMENT OF VINES WITH PLANTS (*J. Bale*).—Clear away the leaves as they fall, and when all have fallen prune the Vines and have the house thoroughly cleaned, washing the woodwork and glass, removing from them any green or dirt, and whitewashing the walls. Dress the Vines after the house has been washed as described to another correspondent (*H. A. P.*) in to-day's Journal. Keep the house cool, but not so cool as to admit frost, which would injure your plants and do the Vines no good. At night a temperature of 40° from fire heat will insure the safety of the plants and do the Vines no harm, as they will not be unduly excited by it, and in the day we should not exceed 45° from fire heat; but it may, of course, in the daytime with sun and air rise to 50° or more, the rise being from natural and not artificial heat.

SELECTING BORDER FLOWERS (*A Constant Reader*).—We cannot undertake to prescribe desirable planting. In a few weeks we shall publish a new edition of "Garden Plans," with very numerous illustrations, showing how

to plant them, as well as single beds and borders; selections of plants, and how to cultivate them.

CUTTING THE ROOTS OFF APPLE TREES (E. M. P.).—Of course it was a great mistake to cut the small fibrous roots off. It will not be necessary to destroy the trees because of this, as plenty of new roots would be formed during last summer. The Victoria is one of the most useful Plums in cultivation. Lord Suffield and Gloria Mundi are both kitchen Apples. Plant Cox's Orange Pippin and Pomona.

KNIGHT'S MONARCH PEAR DROPPING PREMATURELY (B. Austin).—This Pear has the same fault with us near London, and those fruits that remain on the tree are frequently only useful for cooking. And what is also singular, a few of the fruits will be melting and good, the largest proportion remaining quite hard. We advise you to re-graft with another variety.

VINES IN A NORTH BORDER (A. Constant Subscriber).—The Vines will answer planted in a north border, but not so well as in a south one, which will be warmer. With a covering of glass the north border would be improved, with the disadvantage, however, of warding off rains, and so rendering artificial ones necessary. Why not have the border made part of the house? It would then have warmth, and the space would be useful.

WHITE BUG AND GREENHOUSE PLANTS (Idem).—What white bug may be we cannot tell, unless it be mealy bug, which is the most difficult of all pests to free plants of after they once become infested. Brushing, which you employ, only, as you say, wards them off for a short time; they only being brushed off is only a direct way of spreading the pest upon other plants—in fact, it will exist upon woodwork and anywhere where there is dryness, but where there is moisture it does not spread so fast, especially if the plants are forcibly syringed. We should remove the plants from the house, and syringe them one by one outdoors with water at a temperature of 120°, laying the plants on their sides, and turning them round so as to thoroughly cleanse the plants of the pests, the water being forcibly directed against them so as to drive them off the plants. Calm and mild weather should be chosen. Next summer we should place the plants outdoors for a short time, and during rains, which is the best antidote to this pest known. The strictest search should be kept up for the pest, and when any is seen, destroyed.

MEALY BUG ON TACSONIA PAN VOLEXMI (A. G.).—Fumigating with tobacco will not destroy it, and it will only be overcome at great pains, diligent, continued effort. The best plan we have found for cleaning climbers on roofs is to, after thinning-out the shoots as much as desirable, wash every leaf, shoot, and stem with a solution of soft soap—half a pound to two quarts of water, adding a wineglassful of spirits of turpentine to it, and thoroughly mixing. This to be applied with a soft brush, and taking care to reach every eye, angle, and crevice. This is a tedious process, but one that persevered in will soon cover considerable ground. It is likely the solution will injure the plant's leaves somewhat, as they are hairy, and cannot endure so much as plants with smooth leaves. We do not know of anything or nearly so good for this pest, which we are exterminating by its persevering use.

PROPAGATING CHRYSANTHEMUMS (Idem).—Take cuttings and pot them singly in small pots. They will root slowly but surely in a cool house. The plants may be kept in a sheltered position outdoors until March, when you may take cuttings, striking them in gentle heat, and if the old plants are not wanted for outdoors, throwing them away. Azaleas and Camellias ought not at this time of year to be syringed. Adiantum Farlyense does not thrive, probably for want of heat and a regular state of moisture in the atmosphere. It does not also do well if pot-bound. A temperature of 60° to 65° from fire heat at this season is suitable. The Orchids you name ought not to be syringed, or very lightly once a-day, but keeping moderately moist, and a temperature of 60° to 65° from fire heat, but 5° less in very severe weather, and at night in severe weather. No good results in cold weather of maintaining a high temperature.

ARUM TRIPHYLLUM (Kittie).—It is hardy, doing best in sandy loam enriched with vegetable soil. Vallota purpurea ought not to be dried-off, but kept moist, increasing the supply with the growth.

BRIAR CUTTINGS (Idem).—The shoots or cuttings are best having a heel, or taken off close to the stem whence they proceed. The eyes on the depth they are inserted in the ground, which should be two-thirds their length, should be removed, and the cuttings may be 10 inches long. If they grow you may bud them in July, or when they are sufficiently strong.

EVERGREEN CLIMBERS FOR HOUSE WALL (A. D.).—There are no evergreen climbers but the Ivies, and these we should employ for the north aspect only. The best for this purpose are *Hedera canariensis* (hibernica) and *vars. latifolia maculata* and *variegata*; *H. Helix digitata* and *H. Regeriana*. Evergreen shrubs, but not climbers, for the walls are, for south aspect, *Ceanothus aznreus*, *C. floribundus*, *C. integrifolius*, *Eucallonia macrosantha*, and *Garrya elliptica*. East and west—*Crataegus pyracantha* and *var. crenulata*, and *Cotoneaster microphylla*. Those are evergreen; but why restrict yourself to evergreens? *Jasminum nudiflorum* flowers in winter, and *Cydonia japonica* in early spring. *Jasminum officinale grandiflorum* is very sweet, *Glycine sinensis* is beautiful; and the *Clematises Lawsoniana*, *Henryi*, *Lucie Lemoine*, *Jackmanni*, and *Symeana* are good; also *Caprifolium flexuosum* and *C. sempervirens floribundum*; and upon the south aspect *Marshall Niel*, *Climbing Devonensis*, and other Roses, would we think please you better than all evergreens. Defer planting until March.

PLANTING GARLIC, &c. (W. W. B.).—The planting of all you name is best done in February or March.

NAMES OF FRUITS (W. B. B.).—No. 21, Ribston Pippin; 17, Golden Pearmain; 7, Manks Codlin, poor specimen; 4, Winter Quoining. (*J. E.*)—1, Not identified; 2, Golden Pearmain.

POULTRY, BEE, AND PIGEON CHRONICLE.

THE EXHIBITION DORKING.—No. 2.

BY T. COKE BURNELL.

I WILL now suppose that some one of my readers has determined to take up Dorking fowls for exhibition, or, perhaps, is only desirous of improving his present stock of poultry by the introduction of fresh blood of the best strains. The question will be, What is the best way to proceed? In my own case I attended the nearest poultry exhibition with the intention of

buying one or two of the best birds for, as I expected, a pound or two. You may imagine my disgust on finding all the prize birds priced at £100, and all the rest at nearly equally high prices. However, I presently came to the "selling classes," where the price of the competing specimens is usually limited to 30s.; and seeing that the second-prize bird was a Dorking cock entered at that price, and by the catalogue eight months old, I rushed off to the Secretary's office, and after a good deal of pushing and struggling secured him at that price, also a pair of highly-commended hens at the same figure, and returned home very well satisfied with my day's work.

I was so pleased with my new purchases that I invited the poultryman from the neighbouring farm to be present when they were unpacked, and busied myself immensely with wood-work and wire netting to have a separate place for them on arrival, so that they might not be contaminated by low-born company. The birds appeared in good time, and were let out and fed, and I confess that they did not look quite so well to me on the ground as when I saw them in a show pen: and I may as well here add that I have found this opinion strengthened by experience, and my readers may take it as a rule that seeing birds at an exhibition is very deceptive, and that if the pens are placed high up it makes them look half as large again. However, to my story: the man caught hold of the cock, and passing his hand down his breastbone, remarked that it was so crooked "that you could put your fist into it, and asked me to look at the length and sharpness of his spurs, and the scales on his legs, and said he was certain that the bird was at the very least five years old. I strenuously denied this, as the catalogue said he was eight months old. The hens, however, seemed to please him, as he remarked they were very large, and so they were left.

I could not keep long away from my new purchase, and on returning to the pen in an hour or two I found the cock's head all covered with blood, and one of the hens' beak in the same state. This rather astonished me, and I thought the cock and hen must have been fighting, which I considered very ungallant on the part of the old Dorking cock, who I had always heard styled "the pattern of an English gentleman." I watched them for a little while, and soon saw the hen go up to the cock very affectionately and commence to peck his comb, which was already streaming with blood, and to my astonishment the latter seemed to enjoy it; but I now thought it high time to interfere before the cannibal hen should have quite eaten his comb away. To make a long story short, the cock proved old and useless, one of the hens was an inveterate comb-eater, while the other laid shell-less eggs, the extreme value of the three being about 4s. to make into soup, which was their ultimate destination.

I could give more instances of disappointment from buying birds in a "selling class" were it necessary, but I shall only mention this one as a sample of the others, so that intending purchasers in a "selling class" may draw their own inferences. I do not for an instant deny that bargains are occasionally to be picked-up in "selling classes," but only by good judges who are able to appreciate the merits of birds which some amateur does not know the value of; but I am more than ever convinced that beginners had better steer clear of them. In trying, then, to solve the question, Where are good birds to be obtained? I will not attempt to give advice to old fanciers, most of whom are well able to teach me, but simply, if possible, to give a few hints in a crude form to assist beginners.

I recommend anyone really ignorant of fancy points and all that is required in a good bird, and who has not sufficient confidence in his own opinion nor time to attend an auction, to apply to one of the well-known dealers, who, if he asks him a good price, will give him a good bird, or else to write to one of the numerous successful exhibitors of the day, stating your wants and the amount you intend to give, leaving all details to the exhibitor, and trusting him to send you the value for your money. I have the pleasure of the acquaintance of nearly all the leading Dorking exhibitors, and am convinced that not one would take an advantage of a beginner were he to evince confidence; but when anyone writes pretending to be a good judge the exhibitor will often expect him to find out the defects for himself.

There are many who do not like to buy birds without previously seeing them. I would recommend such to buy their birds "on approval," by which is commonly meant that, if the fowls are not approved of they may be returned, the intending purchaser, of course, paying all carriage both going and returning, and also being answerable that the birds reach home in safety. Of course, any special agreement can be made that is thought necessary, but buyers are invariably expected to send the money before the birds are sent off. An honest purchaser should have no objection to this, as it will be readily understood that in these days of sharp practice vendors must be on their guard, as many apply to have birds sent them on approval who have not the least intention of either paying for or returning them.

The next question will be, At what time of year are we most likely to procure birds at a moderate price? This will depend

upon what it is we require. A really good bird, and one likely to win at good shows, has always a certain value, and I should look with suspicion on any advertiser who offers such at a very low price; but inferior birds, "wasters," as they are called, are much more plentiful at one time of year than another. I should recommend anyone who keeps four or five cocks running together, and who wishes for a change of blood of the best strains, to apply to one of the large breeders and exhibitors about June or July in each year, when they must have a large number of chickens from ten to fifteen weeks old, and when they would generally be only too glad to get rid of half a dozen young cockerels showing slight defects for exhibition, but equally good as their best for the purpose required, at from 10s. to 15s. each. Necessarily for a single bird they would charge rather more. One great advantage of procuring cockerel chickens of this age is, that they will not attempt to fight the old birds if introduced into a strange yard; while they will grow up with your own chickens, and you will escape all the fighting and destruction which is the inevitable result of introducing a full-grown cock into a new yard. This object may also be attained by purchasing sittings of eggs, but in doing so too great care cannot be expended in ascertaining in the first place whether the advertiser really has good stock; and secondly, whether, if he has, if he will let you have the eggs from them. There are many complaints of bought eggs not hatching, but anyone who knows what a little is required to spoil a clutch of eggs will not always attribute failure to the roguery of the vendor, though I am sorry to express my belief that the latter is sometimes the case.

BIRMINGHAM POULTRY SHOW.

(Concluded from page 508.)

HAMBURGERS were generally very superior. In *Black cocks*, 1205, the Palace winner, in splendid condition was again in the front; second, rather coarse in comb; third, 1201 (Robinson), a pretty neat bird. Pen 1190 (Beldon), we liked generally as well as the second.

Hens.—First and second, grand pairs; third, not so good in colour. All in their right position.

Golden-pencilled cocks.—1235 (Walker), the Palace cup bird in magnificent trim, carried off first honours. Second and third, good birds.

Silver-pencilled cocks.—First, 1244 (Beldon), a charming bird, beautifully marked in the tail. Second and third, good.

Golden-pencilled hens.—1255 (Duckworth), first, a beautiful pair, good in all points. Second, sound in ground colour. Third, beautifully pencilled but rather pale in colour.

Silver-pencilled hens.—First, a fine pair, rather heavily pencilled. Second and third, extremely good.

Golden-spangled cocks.—Neat in comb and good throughout. Second, pretty bird and well pencilled, but showing a little white between the legs; we fancied we saw him at Oxford, if so his feathers are now more perfect.

Silver-spangled cocks.—All the winners good. First, a little coarse in comb, or otherwise perfect.

Golden-spangled hens.—Here the competition was very close, but we thought the first deserved his position, being generally the most perfect.

Silver-spangled hens.—First, 1325, a delightful pair in beautiful condition, and well matched. Second and third, good pens, the latter not quite a match, or they would have been second.

GAME, Black-breasted Red.—The *cocks*, with the exception of the first (Dutton's), and second (Matthews), were a poor lot. The first was good in colour and carriage. The second had a better head, was shorter in feather, but a little queer on the feet.

Cockerels showed no improvement upon the old birds. The first (Matthews), the winner, we believe, at the Palace and Oxford, was a fine bird. Second (Harley), good, but we thought him a little long in flights. Third and fourth moderate, both coarse in tail.

Hens were better; the winner (Matthews) was a thorough Game bird of splendid style. Second and third, good.

Pullets.—1476, first (Matthews), who secured the cup very closely pressed by the second pen (1475), the Palace winners, we think: in some respects we preferred the second. Third and fourth (same owner), good. Fifth, a little high in tail.

Brown-breasted Red cocks.—1535 (Brierley), first and extra cup, a little thick perhaps in head, but otherwise perfect. Second and third tolerably good, the latter a little high in tail. We thought we recognised the Palace cup-winner here unnoticed.

Cockerels.—1537 (Burgess), a nice bird, a little long in hackle. Second (1533) good, but struck us as being a little arched in the back. Third, fourth, and fifth, nice birds and in their proper positions.

Hens.—1536, first, fine, very dark in colour: second, smart; third and fourth, judiciously selected.

Pullets.—1623, first (Brierley), an easy win, a beautiful creature of grand style. Second, good, but we thought him rather

narrow. Pen 1593, fourth, the Oxford winner (Matthews), should have been more forward in the prize list.

Duckwing cocks were a poor lot. 1612 (Winwood) was awarded first prize; but an objection was raised, and upon inspection the bird was found to have been dyed, and was consequently disqualified. This put 1635 (Phillips) first, a good bird, but slightly mottled on the breast.

Cockerels.—First 1662 (Winwood), a smart bird, rather long in hackle. 1665 a little grey in hackles, otherwise good. 1650, third, we rather preferred to second, being clear in hackle, and other points equal.

Hens.—1741, first, was a little flat in sides and not good in colour. Second, 1671 (Matthews), smart, but not in feather. 1675, third (Sales), a little short in head, otherwise grand.

Pullets.—First, 1686, had some very good points, but was too rusty on the wing for a prizewinner. Second and third were fine birds. We should like to have seen pen 1678, highly commended (Goodwin), and a pen of Mr. Fletcher's in the prize list.

Black and Brassy-winged were only a moderate lot, calling for no special notice.

Piles.—First, 1774 (Brierley), a smart bird, exhibiting some signs of the Malay. Second, 1720 (Walton), very nice in colour.

Hens or Pullets.—First, 1720, good all round. Second, 1721, a superior pullet, but little open in tail. 1729 (Winwood), smart pullet. First, we think, at the Palace was unnoticed.

GAME BANTAMS.—*Black-breasted Reds.*—Cock and two hens, 1775, first (Addie), smart cock, hens not quite up to him. Second, 1772 (Enwistle), a thorough Game pen, cock not so stylish as the winner. Third, 1773, was closely pressed by 1767, fourth. We almost think we preferred the latter.

Brown Reds.—1785, first, a splendid bird with two good pullets. We think we remember one of them at the Palace unnoticed, and thought she was best in the class.

Any other variety.—Not so good as the other classes. Pen 1791, first, had some good points.

Single Cocks (Reds).—First, 1806 (Addie), a very smart stylish bird, similar in stamp to 1775. *Any other Variety.*—First, 1833 (Fletcher), a beautiful bird, the best Duckwing we have seen this year. Second (Brownlie), a Pile well known. Third (Shumach), the Palace winner, we think, but here fairly beaten.

DUCKS.—Ducks had eight classes. *Aylesbury and Rouen* both show a satisfactory improvement in weight, especially the former, the first-prize in each weighing respectively 19 lbs. 8 ozs. and 19 lbs. 14 ozs. In *Blacks*, 1932 (Sainsbury), was first. We think this pen (or the light deceived us), better matched than at the Palace.

The other varieties of Ducks were not largely represented, but some very interesting specimens were to be found.

GEESE compared with Turkeys were not numerous. Mr. Walker was deservedly placed first for Whites, and Mr. Fowler for Greys.

TURKEYS had four classes, all well filled. The *cocks* of 1874 reached thirty-one entries, and the class for *hens* nineteen. The old cocks in weight were not up to last year. The other classes show a satisfactory increase.

In conclusion we think the poultry classes have improved upon last year. Some certainly are not so good, notably the Brahmas; on the other hand the Buff Cochins, Game, and Game Bantams show considerable progress in the right direction. The Pigeons we regret were not better supported. The schedule is liberal enough; the Committee have only to find better accommodation for them, and the classes will be again well filled.

THE YORKSHIRE SOCIETY'S EXHIBITION OF POULTRY, &c.

THE eighteenth annual Show of the York Society took place on the 1st, 2nd, and 3rd inst. in the Cattle Market. The poultry pens, which were of wood with wire fronts, were well placed three-tier high, and the birds mostly quite easy to examine. In *Dorkings* Mr. Widdas won with a grand pen of chickens, but we failed to appreciate the second award, preferring the third and fourth as better in most points. *Spanish* were moderate in both classes, Mr. Brown's pen of chickens being well worthy of their position. In *Buff Cochins* the first prize went to a grand pen of chickens, and the second to old birds, Whites taking the first position in the next class, with Partridge second and third. In *Brahmas* the first went to a pen of chickens, the pullet beautifully pencilled, but the cock extremely poor; while the second prize went a much better pen of old birds, which were very massive and good in all points; both were Dark. *Game (Reds)* were well placed, Messrs. Adams winning first with a grand pen of adult Brown Reds; the second were also of that kind. In *Duckwings* Messrs. Adams again won the first place with a sound well-shown pen of old birds, the second going to a coarse-headed pair, to which we preferred Mr. Staveley's pen, as being more stylish and better in head. In the next two classes *Piles* won in both cases. *Hamburgs* came next, but these were bad as a section, though there were some grand

birds shown by Messrs. Walker, Driver, Long, &c. In Gold-pencils the best pen in the class was placed second (Walker); the next best pen (Driver) was not noticed. The winning first pen might have been placed third. In the rest of them there was nothing of note except the winners. The Gold-spangles, being placed at the bottom, were very difficult to examine, and this was also the case with the *Bantams*, the pens being small and crowded, and the light not good.

PIGEONS were not a large entry, but there were some very good birds. The Black Carrier cock to which the cup was awarded was a gem, and in this class we found a card of disqualification for trimming upon pen 482 (J. Thompson, Bingley). Carrier hens were fair, Blacks winning. In Pouter cocks Mr. Hairsine's capital Black cock won first, Mr. Harvey's Blue coming in second, the order being reversed in hens in favour of a smart Blue hen belonging to the last-named gentleman. Of *Almonds* only one pen was shown. In other Short-faces Mr. Hawley showed an exquisite pair of Black Mottles; the second were Red Mottles, also very good. *Fantails* were a moderate lot. *Barbs* good; Duns first, and Blacks second. *Jacobins* were a fair lot; the two winning pairs of Reds very even, and a close run. *Turbits* were badly placed; the Silvers, to which the first prize was awarded, were unworthy of a place, Mr. Moore's Blue being by far the best, the second best taking the right position. Mr. Sefton won all the prizes with *Dragoons* of grand quality of head and colour (Blue).

RABBITS.—The usual facilities for examining the Rabbits being denied us, and the Judge (who is at once a resident and a member of the Committee) being engaged at the door taking checks, we found it impossible to arrive at such information as would warrant our criticising the awards (a most desirable state of things for a judge no doubt), except in a few cases, which were the *Angoras*, *Silver-Greys*, and *Dutch*. The first-named we considered well placed as regards the winners, Mr. Swetman's Rabbits being grand stock in all particulars. The winning *Himalayans* appeared to be good Rabbits; but in the awards in *Silver-Greys* we could not agree in the least, the first going to a very dark even-coloured animal (Schofield), second to one with well-silvered body, darkish head, and left ear half-lopped. The best of all the lot (Ball), which stood clear of all competition, was not noticed. In *Dutch* also we could not understand, the first awards going to a bad-coloured Grey-and-white with very large ears, but pretty well marked (Dickson); second, to the best Rabbit, a Black-and-white (Lund). The second best was a grand Tortoiseshell buck (Sabbage), which was altogether unnoticed. The entries were good.

DORKINGS.—I. C. Widdas, Howden-le-Wear, Darlington. 2. J. Newall, Clifton. York. 3. J. Carr, Whitby. 4. R. W. Richardson, Beverley.

SPANISH.—I. E. Brown, Sheffield. 2. Fallister & Hawkins, Topcliffe, Thirsk. 3. J. Thresh, Bradford. *Chickens*.—I. E. Brown. 2. J. Thresh. 3. Fallister and Hawkins.

COCHIN-CHINA.—*Yellow or Buff*.—I. D. & J. Heston, Whitby. 2. J. White, Whiteley, Netherthorn, Wakefield. 3. W. Mitchell, Birkenhead, Leeds. 4. G. Palfreyman, jun., Healey, Sheffield. *hc*, J. North, Huddersfield. *Any other colour*.—I. C. Carr, Walsden, Bingley. 2. H. White, 3. T. Al. Derry, Geddes. 4. T. Pierson, Rosedale West, Pickering. *hc*, Miss H. Williams, Aylesbury. c. R. E. Deane, Pocklington.

BAHMA POOTRA.—I. Dr. Holmes, Whitecoats, Chesterfield. 2. W. Whiteley, Sheffield. *hc*, Rev. A. H. Cumming, Northallerton; E. Ryder, Hyde, Manchester. 3. T. Dodson, Kirbymoorside.

GAME.—*Black-breasted or other Reds*.—I. W. & H. Adams, Beverley. 2. Lister & Ponder, Seamer, Yarm. *Duckings*.—I. W. & H. Adams. 2. J. Watson, Kirkstouff, C. J. A. & H. H. Savelley, Driffield. *Any other variety*.—I. W. Green, Earswick, York. 2. W. Smith, Easthorpe, Bottesford. *Any variety*.—*Chickens*.—1, 2, and *hc*, G. S. Thompson, Moorlands, York. c. A. Sugden, Swinley, Cleckheaton; G. C. Wilson, Milnthorpe; C. Carter, Bedale.

HAMBOURG.—*Golden-pencilled*.—I. J. Smith, Gilestead, Bingley. 2. J. Walker, Birstwith, Ripley. 3. J. Long, Bromley Common. *Silver-pencilled*.—I. J. Walker. 3. and c. H. Smith, Keighley.

HAMBOURG.—*Golden-spangled*.—I. J. Long. 2. J. Walker. 3. R. Newby, Welhorn, York. *Silver-spangled*.—I. J. Walker. 2. Richardson, York. 3. J. Tiplady, Newport.

POLISH.—I. J. Long. 2. G. W. Boothby, Louth. *hc*, W. Harvey, Sheffield. c. C. Walker, Boroughbridge.

BANTAMS.—*Game*.—I. A. Sugden, Swinley, Cleckheaton. 2. H. Butler, Bradford. 3. J. R. Kingston, Clifton, York. J. Walshaw, Bentley. c. H. Butler; W. & H. Adams; W. Harvey. *Laced*.—1 and *hc*, W. Richardson. 2. J. H. Law, Highgate, Birmingham. *Any other variety*.—1, J. R. Kingston, Clifton, York. 2. J. Sherwin, Ripon.

ANY OTHER VARIETY.—I. J. Walker (Black Hamburghs). 2. T. Peirson, Pickering (Crève-Cœur). *hc*, R. I. Off, Woodmansey, Beverley (Sultans). CROSS BETWEEN TWO PURE BREEDS MOST SUITABLE FOR THE TABLE.—I. J. A. Cass, Hovingham. 2. G. Hutchinson, York. *hc*, W. S. Dobson, Marton, Kirby Moorside. c. Mrs. C. Tarbotton, Cawton, Gilling.

TURKEYS.—I. Mrs. Parker, Thirsk. 2. Miss Jordan, Driffield. *Poult*.—I. T. P. Carver, Langthorpe, Boroughbridge. 2 and *hc*, Miss Jordan. c. J. White, Brandy, Easingwold.

GESE.—I. Capt. L. Anyon, Whittle-le-Woods, Chorley. 2. J. White, Whitley Netherthorn, Wakefield. *hc*, R. Garbutt, Watergate, Ampleforth, Oswaldkirk. c. J. A. Cass.

DUCKS.—*Aylesbury*.—1 and 2, C. Holt, Rochdale. *hc*, T. P. Carver. c. W. Stonehouse, Darnholme, Gouthard, Pickering. *Rouen*.—I. G. Garbutt, Sinnington, Pickering. 2, C. Holt. *hc*, J. Coates, Easingwold. c. Mrs. Stamper, Oswaldkirk. *Any other variety*.—I. A. & W. H. Silvester, Sheffield (Mandarin). 2 and c. R. W. Richardson (Black East Indian and White Call). *hc*, G. Robinson, Kexby, York.

SELLING CLASS.—I. W. & H. Adams (Brown Red Game). 2. R. W. Richardson (Dorkings). 3. Mrs. E. Kirk, Poppleton, York (Brahmas). *hc*, W. Mitchell, Birkenhead, Leeds (Cochins). c. T. E. Satterthwaite, Castle Howard (Dorkings); Mrs. E. Kirk (Brahmas).

PIGEONS.

CARRIERS.—*Cock*.—Cup, 1, and *hc*, W. Sefton, Blackburn. 2, A. T. Umpleby, Boroughbridge. *Hen*.—1, W. Moore, Pickering. 2, W. Sefton.

POUTERS.—*Cock*.—1, J. Hairsine, Hull. 2, W. Harvey. *hc*, J. P. Fawcett, Flowergate, Whitby. *Hen*.—1, W. Harvey. 2, J. Harrison, York. *hc*, J. Hairsine.

TOMBLERS.—*Almond*.—1, A. & W. H. Silvester. *Any other variety, Short-faced*.—1, J. Hawley, Gillingham, Bradford. 2, A. & W. H. Silvester. *hc*, J. S. Marten, York. c. E. Kirk, Walmgate, York.

FANTAILS.—1, G. Linfoot, York. 2, J. P. Loversidge, Newark. *hc*, F. Joy, Walmgate, York. c. T. S. Stephenson, Newberrin, Beverley.

TRUMPETERS.—1, W. Harvey. 2, T. S. Stephenson.

BABBS.—1, W. Harvey. 2, J. Thresh, Bradford. c. W. T. Humphrey, York.

JACOBINS.—1, J. Thompson, Ferohill, Bingley. 2, R. W. Richardson.

TURBITS.—1, E. A. Thoroton. 2, T. S. Stephenson. *hc*, A. & W. H. Silvester.

c. J. Acenley, Pickering; W. Moore, Pickering.

OWLS.—1, W. C. Dawson, Otley. 2, G. W. Dutton, Chester.

NUSS.—1, J. Cargill. 2, T. P. Carver. *hc*, J. Hawley. c. R. W. Richardson.

DRAGONS.—1, 2, and c. W. Sefton.

ANTWEAPS.—1, F. Woodhouse, Blackburn. 2, A. Farndon, Hincley. *hc*, Rev. C. E. Camidge, York. c. G. Nicholson, York.

ANY OTHER VARIETY.—1, M. Ord, Sanis, Sedgfield (Turbitens). 2, W. C. Dawson, Otley (Ice). *hc*, C. Auton, York.

SELLING CLASS.—1, A. & W. H. Silvester. 2, W. C. Dawson. 3, C. R. Dixon, York (Silver Antweaps). *hc*, J. Thompson. c. T. Richardson (Blue Turbits).

RABBITS.

LOP-EARED.—*Self-coloured, taking all properties*.—*Buck or Doe*.—1, Dr. Boden, West Hartlepool. 2, T. Myton, Hunsate, York. *hc*, E. J. Fell, Blackburn. c. J. Bowman, Groves, York.

WHARTON, York. 2, F. T. Backs, Lodon. *hc*, T. Myton.

LOP-EARED.—*Tortoiseshell, taking all properties*.—*Buck or Doe*.—1, Dr. Boden.

2, F. T. Backs. *hc*, J. Iving, Blackburn. c. W. Bailey, Darlington.

LOP-EARED.—*Black-and-white, taking all properties*.—*Buck or Doe*.—1, F. T. Banks. 2, J. Cranch, St. John's Wood, London. c. T. Schofield, jun., Cheet-

ham, Manchester.

LOP-EARED.—*Grey-and-white or Blue-and-white, taking all properties*.—*Buck or Doe*.—1, J. Iving, Blackburn. 2, Mrs. Robinson, York.

HIMALAYAN.—*Buck or Doe*.—1 and 2, J. D. Eames, Great Driffield. *hc*, Mrs. Bowman. c. S. Ball, Bradford.

ANGORA.—*Buck or Doe*.—Cup, 1, and 2, H. Swetnam, Fulford, York. *hc*, W. Jacques, York. c. W. Bowes, Elmhurst, Darlington.

DUTCH.—*Buck or Doe*.—1, J. Dickson, York. 2, A. Lund, York. c. J. H. Prince, York.

ANY OTHER VARIETY.—*Buck or Doe*.—1, T. Schofield, jun. 2, H. Swetnam. *hc*, J. Hallas, Huddersfield. c. G. M. Duffell, York.

ANY OTHER VARIETY.—*Buck or Doe*.—1, F. Duke, York (Belgian Hare). 2, G. Linfoot, jun., York (Belgian Hare).

SELLING CLASS.—1, A. Jones, Wolverhampton. 2, F. Sabbage, Northampton. *hc*, C. Auton, York. c. D. Bowman (Lop-eared).

JUDGES.—*Poultry*: Mr. R. Teabay, Fullwood, Preston; Mr. F. Ferguson, Risby Park, Beverley. *Pigeons*: Mr. W. Massey, Spalding. *Rabbits*: Mr. M. Millington, Colliergate, York.

BRISTOL POULTRY AND PIGEON SHOW.—The entries for the above Show close next Tuesday, December 15th. The long list of cups and good money prizes ought to attract a grand collection of birds in the Drill Hall. Mr. Cambridge, we believe, alone is to be thanked for so spiritedly trying once more to make this Exhibition a success. We will, for our part, promise a full report of the Show department, as satisfactory as we feel sure Mr. Cambridge will make his. We understand the rules are all to be as strictly kept as ever. No one of any kind, save attendants, will be admitted previously to the hour of opening, and no favoured.

THE DRAGOON PIGEON.

I wish to say something about this extremely beautiful bird, and to attempt at last to rescue the real Dragoon from being set aside and a kind of Horseman being put in its place. I plead that both birds are fancy birds—birds of long lineage, and they both deserve a position at our shows; but the present danger consists in the true Dragoon being set aside and a new variety of bird—a kind of Horseman-Dragoon, taking its name and place.

It so happens that the Dragoon was the first fancy Pigeon that I bred. I had them in the year 1838. I then bred Ponters, and to get them longer, and without consulting any other person, crossed them with what was then called the Spanish Runt. I merely mention this in passing, but it is curious that I, a boy fancier, thus tried to improve the Ponter without any idea given me from anyone else. The colour of my Black and Red Ponters was splendid, but I did not like the birds being so small. I had also, I remember, good Chequers and Blues. But to return to the Dragoon. Mine were Grizzled, Mottled, and White. I had about the same time, purchased a few months later, Horsemen both Red and Yellow. I distinctly remember the two sorts and their differences. The book I worked by, which I have found this day among my own children's books, was "The Boys' Own Book," which contains engravings of Pigeons much superior to Girton's "Fancier." I do not say they are equal to the portraits of Pigeons now-a-days published, but they were the best of their day, and are not bad even now. Following the picture of the Carrier come the heads of the Horseman and Dragoon. Both are good; but as the Dragoon head is a profile it is better seen, and there you have the long thin head of the Dragoon proper, with little eye-wattle and no jew-wattle—almost precisely the same head as the Dragoon thus figured in this Journal in 1870 by the capital pencil of Mr. Ludlow. This portrait of his I call a Dragoon, with not an atom of Horseman about it, and like the Dragons I possessed in the years 1838 up to 1842.

Next I would speak of Horsemen and Dragons together. Both should in colour be wholly unlike Carriers. Carriers are Black, Dun, and Blue; formerly Black and Dun only or chiefly,

and indeed now chiefly. Horsemen and Dragoons be Blue, Red, Yellow, White, Grizzle, Silvers, &c. Next, Horsemen are distinct, and always were, from the high-type Black and Dun Carriers. There is a very old picture of one in oil at Hampton Court Palace. They were and are stouter birds than the true Dragoon, and these birds improved by skill take now the chief prizes as Dragoons.

That these prize Dragoons—the heavier sort—are sometimes also bred direct from a Carrier and Dragoon is also true. A friend of mine bred one from a black-beaked Carrier and a Dragoon. A great dealer admired it, bought it, and won many prizes with it, exhibiting it as a Dragoon, and this within recent years. Now no one will say that this bird was a true Dragoon; it was simply a young Horseman Carrier-bred in part.

I think that not only fancy Pigeons must not be allowed to deteriorate, but they must not be allowed to go under wrong names; and that those who are not themselves exhibitors, and

therefore have not their minds biassed or warped by the desire of taking prizes, are the best persons to speak out on this subject. The case stands thus: A man breeds or buys birds of a certain type, he gets prizes, he gets up a stock of such birds, and they are profitable; all the while they may be birds of a wrong type. Such is just the case with the successful exhibitors of the Horseman-Dragoons of the present day. Such also was the case with the Anglo-African Owls of a few years since; now they are English and African Owls which are shown. Why not exhibit Horsemen and Dragoons instead of Horseman-Dragoons? The reason is, that valuable Horseman-Dragoons throng the lofts of successful exhibitors.

Next, what should the true Dragoon be like? First, it should not be a large bird; the beak should not be short and thick; the eye should not be a little pinched at the back, but as circular as possible. The Dragoon should be a smallish, smart-looking, gracefully-formed bird, as unlike a Carrier in every respect as

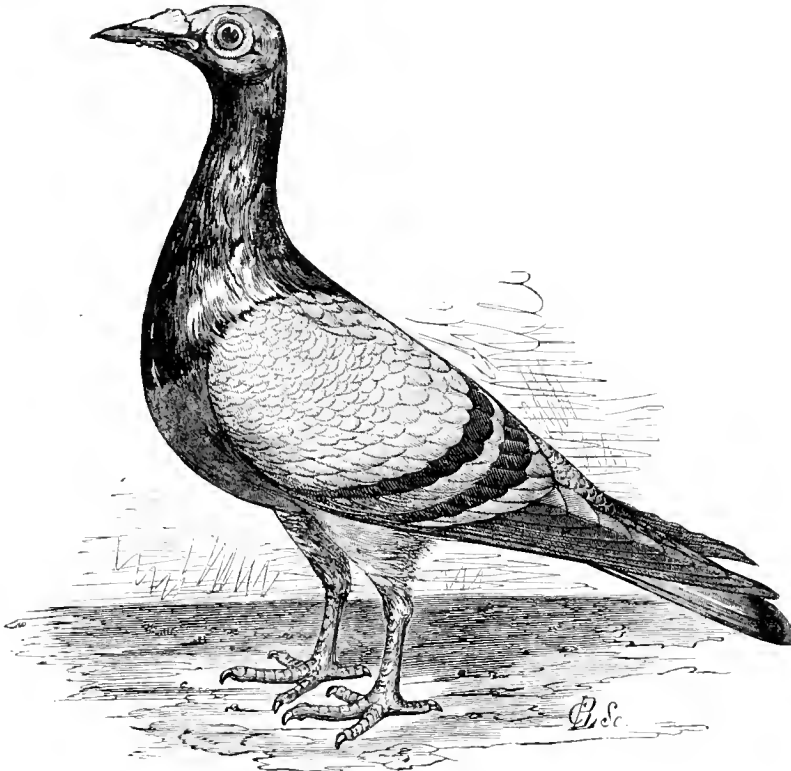


Fig. 149.—THE DRAGOON PIGEON.

possible: the beak long and straight, the beak-wattle peg-shaped and no jew wattle, and no dent between beak and head; the neck should be thin, as indeed the whole body should, but the shoulders somewhat broad. In Blues the bars should be black and narrow. In brief, the Dragoon should be slightly built; as I have frequently written, he should be "a tight little, light little fellow."

Of modern describers of the right type of Dragoon Mr. Ludlow stands first as an accurate describer both with pen and pencil. Another accurate writer is Mr. Woodhouse, of Lynn. The place where the real Dragoon is seen and bred is Birmingham, and Birmingham is first for Dragoons as certainly as Glasgow is for Pouters. Let the so-called London style of bird be exhibited under his right, or nearly right, name—that of Horseman. As Mr. Ludlow has well said in the columns of a contemporary, "They are a lot of degenerate Carriers, big, heavy, and coarse." "Run as Dragoons, because there are no classes for Red, Yellow, or White Carriers, and they are not good enough to grapple with the Blacks and Duns."

In conclusion I would say, Exhibit Horsemen and exhibit Dragoons, but do not mingle the two. Fanciers, and those who are determined to keep the fancy up to the right mark, have, it appears to me, to do two things: Fight strenuously against all unfair doings, all trimming, staining, painting, &c.; fight against all turf-like tricks which threaten to banish honest men from, if not the fancy, the ranks of exhibitors. Then, too, resist attempts to alter the type of any variety of Pigeon, for there must in all common sense be but one style of bird, and not London

style and Birmingham style. It is true style, and the style of the successful exhibitor who, having bred up to a certain standard, naturally desires that standard to be preserved. If that standard be correct, keep to it by all means. I rejoice when any exhibitor breeds nearer and nearer to perfection, but if his style be the wrong type of bird I must disregard his breeches-pocket interest, and pronounce in favour of what is right, for right is right. We must persevere in a right course always. Mr. Bishop, of Dorchester, persevered with his true Silvers, and has succeeded in having a class for the correct bird at the Palace Show, in spite of the attractive appearance of the black-barred—i.e., the Blue-crossed Silvers. Both birds are very pretty, but true is true, right is right. A true and right Silver must have brown bars, for it always had. We must also remember that prizes are not always criterions of what is strictly correct; they ought to be, but they are not, and certainly they have not been of late in Dragoons.—WILTSHIRE RECTOR.

P.S.—Since writing the above I have read in the last issue of a contemporary the following:—"Mr. Graham has bought a bird from a friend of mine shown at the last Bradford Show. Now, this bird is bred from a Blue cock, which my friend intended at one time to breed Carriers from, and a half-bred Black Carrier hen! This bird, he says, is the best young Dragoon he has seen this year," whereas the truth is the bird is not a Dragoon at all. Take this anecdote, together with the one I have stated above, and we see that the heavy style that too often wins is a Horseman and not a Dragoon, or something of the kind of Horseman. At any rate this is not keeping the two varieties

distinct—the Carrier and Dragoon. But return to the old standard of Dragoon, the one still followed by the Birmingham fanciers, and you do keep the varieties quite distinct. I do not argue that the fine large Red, Yellow, and Blue birds be obliterated, only shown as Horsemen, which I believe to be their right name. People may reply—"What's in a name?" I answer, Much. A pony is one kind of horse, a cob is another; the pony is the Dragoon, the cob the Horseman. I need scarce point out how this distinction, Horseman and Dragoon, preserves the latter word from being vulgarised into *Dragon*. Moore wrote Dragoon, so of his successors; Eaton, a wholly uneducated man, naturally as such advocated Dragon, not knowing or understanding the etymology of words.—W. R.

WASHINGTON (CO. DURHAM) POULTRY SHOW.

THE first attempt to hold a show here was made on the 2nd inst., and, considering the amount at the disposal of the Committee, with excellent results. Through the inexperience of the Committee the schedule was somewhat faulty, otherwise much larger entries would have been obtained. Then in the Bantam section four classes were provided for Game, with none for the other varieties, and for Ducks there was only one class. The Show lasted only one day, and was held in a tent; Fothergill's excellent pens being used, and the wants of the birds were well attended to.

Dorkings were but poor; but the winning *Cochins* very fine in style, size, and colour, the cup pen (Mr. Procter's), old birds, were very even in colour; but the first-prize cockerel a little deeper in ground than is desirable. *Brahmas* were very good in both classes, Mr. Swann winning in old birds with a massive pen; Mr. Shield's birds coming in a good second. Young birds were a very even lot, the first-prize pullet grandly pencilled, yet it was a mere toss-up between that and Mr. Venables' grand pen. All the winners were of the Dark variety. *Spanish* were poor, except the adult winners. Of *Hamburghs* there was a fair entry and many good birds, the old and young in Gold-spangled first-prize pen being well marked, and very sound and even in colour. Golden-pencilled chickens were a near run for first honours, the first by far the best pullet, but the cockerel a little too red in tail. Silver-spangled won the cup, and were chickens of the season. The first in old Red *Game* were Black Reds, the cock fine in all points, but the hen, otherwise good, had a twisted comb, and except for this the pen would have had the cup for the section; the second were Brown Reds, also good. In chickens the first were Brown, and second Black Reds. Duckwings were very poor, except the two first, which were prize pens. *Houdans* would seem to be looking up, for we never recollect seeing so large and good a lot at any show in the north of England. The first in old birds (although the hen is not large in crest) were a grand pair, well matched in colour, large, and the cock's comb unusually good and of the proper type; the second losing only in that point. Chickens were also good, and an even lot. Adult *Polish* were every pen noticed, the first Silvers securing the cup also, though closely pressed by the first-named Houdans. Young *Polish* were first, and second Gold. In the Variety class a good pen of Malays took the first position, second going to Black *Hamburghs*. Of *Game Bantams* the entries were good, and the section perhaps the best in the Show. The old and young Black Reds were of the highest merit, and the cup given to a smart pen of chickens, which, if they had a fault, was a little too much of a well-carried tail. Duckwings and Piles were good, especially the former, but one pen might, with equal chance, have been shown in the large class. In *Ducks* the first were very large *Rouens*, second *Widgeon*, and extra second *Rouen*, while a third was given to *Aylesburys*.

Pigeons were not equal to the poultry in quality, although the prize birds were, as a rule, good specimens of their kinds, the *Dragoons* being a good class; while *Carriers* were not good; *Antwerps* being a fair lot. *Tumblers* were one of the best classes, an Almond cock was first; but this was not equal in head properties to the second-prize Agate, which was a gem in that respect. In *Owls* a Silver English was first, and Blue the second. In *Turbits* a very good Point-headed Silver was first and a Yellow second, many good birds being very foul on the thigh. *Barbs* were pretty good, Blacks taking both prizes. In *Jacobins* only the winners were of any use in the show pen, first Yellow, and second Red. *Fantails* were not good, except the first; but in the Variety were two capital birds, first a Blondinette, and second a Grey Frizzled Pigeon shown by Mr. Ord.

The show of *Cage Birds* was poor.

DORKINGS.—1, W. Swann, Bedlington. 2, J. N. Lawson, Preston. *hc*, A. Buglas, Durham. *Chickens*.—2, W. Ellison, Washington. **COCHINS.**—Cup, G. H. Procter, Durham. 2, G. Latimer, Washington. *Chickens*.—1, G. H. Procter. 2, J. N. Lawson. **BRAMA PIGEONS.**—1, W. Swann. 2, R. Shield, Swallow. *hc*, C. Venables, Castle Eden. *c*, J. H. Houghton, Houghton-le-Spring. *Chickens*.—1, R. Shield. 2 and 3, C. Venables. *vhc*, J. D. Upson, Usworth Colliery. *hc*, T. Noble, Washington; T. Allen, Newcastle. *c*, W. Wren, Old Shildon; G. Mason, Shildon Lodge Colliery; W. Swann.

SPANISH.—1, W. Jaggs, Blyth. 2, Willoughby & Purvis, Hexham. *hc*, G.

Davidson, Washington. *Chickens*.—1, W. Jaggs. 2, R. Shield. *c*, W. Appleton, Wrexham.

HAMBURGH.—*Golden-spangled*.—1, R. Keenleyside, Darlington. 2, Whitfield and Hodgson, Hutton-Jellote. *Chickens*.—1, R. Keenleyside. 2, J. Stewart, Dudley Colliery. *hc*, G. Blair, Washington.

HAMBURGH.—*Golden-pencilled*.—1, G. Ridley, Lintz Green. 2, D. Cheyne, Morpeth. *Chickens*.—1, A. Stephenson, Dudley Colliery. 2, D. Cheyne. *hc*, T. Davis, Washington Colliery; W. Newberry, Newcastle; J. G. Walker, Hendon, Sunderland. *c*, J. Morton, Choppington Colliery; R. Hutton, Sunderland.

HAMBURGH.—*Silver-spangled*.—1, G. Alderson, West Hartlepool. 2, G. Barkes, Stanhope. *Chickens*.—Cup and 1, H. Starbuck, Worsbourn. 2, G. Stalker, Bedlington. *hc*, G. Barkes; J. Curry, Bedlington. *c*, G. Alderson.

HAMBURGH.—*Silver-pencilled*.—1, J. Morton. 2, Whitfield & Hodgson. *c*, T. Stansfield, Sunderland. *Chickens*.—1, R. Parsons, Bedlington. 2, J. G. Walker. *hc*, J. Morton. *c*, G. Kellet, Washington; T. Stansfield.

GAME.—*Black or Brown Reds*.—1, T. Dodd, Seaton Burn Colliery. 2, J. Young, Morpeth. *hc*, A. Buglas; J. Dixon, Monkwearmouth. *c*, S. Hylton, Washington; T. Noble; J. Morton. *Chickens*.—1, J. Hutton, Seabrook Colliery. 2, J. Morton. *hc*, J. Dixon. *c*, J. N. Lawson, Ryhope; G. Carter, Bedale.

GAME.—*Duckings or other Greys*.—1, J. Gibson, Stanhope. 2, W. Allen. *Chickens*.—1, J. Young.

HOTDANS.—1, J. G. Milner, Bishop Auckland. 2, J. Allison, Long Benton. *hc*, S. Hylton; D. Gardner, Washington; J. Hudspeth, Hexham. *c*, R. Barras, Washington. *Chickens*.—1, J. Hudspeth. 2, T. S. Tate, South Shields. *vhc*, D. Gardner; H. A. Cave, Sunderland. *hc*, W. Ellison, Washington; R. Barras. *c*, T. Wilson, Washington; T. Addison, Ox Close, Washington; R. T. Sagar East Rainton.

POLISH.—Cup, A. Buglas. 2, J. T. Proud, Binchester, Bishop Auckland. *vhc*, A. Stephenson; R. Parsons; W. Canney, Bishop Auckland. *hc*, J. Hudson. *Chickens*.—1, J. T. Proud. 2, A. Buglas. *hc*, R. Parsons; F. E. Gibson, Middleton-in-Teesdale.

BANTAMS.—1, J. N. Lawson. 2, H. Cotes, Darlington. *hc*, G. Forsyth, Washington; G. Sadler, Boroughbridge.

ANY OTHER VARIETY.—1, R. Hawkins, Seabrook. 2, J. Milburn, Lintz Green. *hc*, E. Symonds, Hebburn New Town. *hc*, H. A. Cave (2).

GAME BANTAMS.—*Black or Brown Reds*.—1, J. Barlow, Monkwearmouth. 2, J. Cook, Monkwearmouth. *vhc*, W. Gray, Tow Law. *hc*, D. Hunter, Sunderland; A. Thoburn, Sunderland. *c*, S. Hylton. *Chickens*.—Cup and 1, J. Barlow. 2, D. Hunter. *vhc*, J. Cook; J. Barlow. *hc*, S. Hylton; G. Bell, Morpeth; W. Gray. *c*, J. Burnip, Lintz Green.

BANTAMS.—*Duckings or other Greys*.—1, D. Hunter. 2, G. Ridley. *vhc*, W. Gray. *hc*, S. Hylton. *c*, R. Youll, Sunderland. *Chickens*.—1, T. Reaveley, Bedlington Station. 2, J. Cook. *vhc*, T. Mallen. *hc*, J. Burnip; T. Stansfield; W. Gray. *c*, T. Stansfield.

DUCKS.—1, W. Canney. 2, Extra 2, J. G. Milner. 3, W. Appleton. *vhc*, W. Swann. *hc*, T. Stansfield. *c*, H. Winter, Washington; H. French, Washington; C. Hunter, Washington.

GOSLINGS.—1, G. E. Forster. 2, W. Brown, Washington.

TURKEYS.—Young.—1, G. E. Forster, Washington.

PIGEONS.

CARRIERS.—*Cock or Hen*.—1, J. Bell, jun., Newcastle-on-Tyne. 2, F. R. Edwarson, Liverpool.

DRAAGONS.—*Cock or Hen*.—1, E. J. Rowley, Burslem. 2, R. Bellerby, Sunderland. *hc*, A. McKenzie, Liverpool (2); C. Harburn, Sunderland. *c*, J. Cowley.

ANTWERPS.—*Cock or Hen*.—1, J. Cowley. 2 and *hc*, J. Kendrick, Redditch.

TUMBLERS.—*Cock or Hen*.—1, R. & J. Anderson, Newcastle. 2, G. E. Forster. *vhc*, W. J. Donkin, Newcastle. *hc*, H. Pearson, Gateshead (2); W. J. Donkin; J. Carrill, York.

POSTERS.—*Cock or Hen*.—1, J. Bell, jun. 2 and *c*, T. Noble. *hc*, G. E. Forster.

NOCS.—*Cock or Hen*.—1 and 2, J. Carrill.

GWLS.—*Cock or Hen*.—1, W. J. Donkin. 2, G. Alderson. *vhc*, R. & J. Anderson; W. J. Donkin. *hc*, F. R. Edwarson.

TURBITS.—*Cock or Hen*.—1, G. Alderson. *vhc*, W. J. Donkin. *hc*, G. E. Forster; K. & J. Anderson; J. Carrill; H. Maddison.

BARBS.—*Cock or Hen*.—1, G. E. Forster. 2, T. Noble. *hc*, E. Grant, Sunderland; C. Harburn.

JACOBINS.—*Cock or Hen*.—1 and *vhc*, C. Caldclough, Durham. 2, J. Nixon, Great Unsworth.

FANTAILS.—*Cock or Hen*.—1, R. & J. Anderson. 2, G. E. Forster. *hc*, T. Noble.

ANY OTHER VARIETY.—*Cock or Hen*.—1 and 2, M. Ord, Durham. *vhc*, G. E. Forster (2). *hc*, T. Noble (2); R. Hutchinson, Washington.

CANARIES.

NORWICH.—*Any colour.*—*Cock or Hen*.—1, G. E. Forster. 2, S. Shea, Washington Station.

CHESTER.—*Any colour.*—*Cock or Hen*.—1, G. E. Forster. 2, W. Robson.

GLASGOW DONS.—*Any colour.*—*Cock or Hen*.—1, G. E. Forster. 2, P. Campbell.

LIZARDS.—*Gold or Silver-spangled.*—1, G. E. Forster. 2, J. Pringle.

MULES.—*Any variety.*—*Cock or Hen*.—1, G. E. Forster.

JUDGE.—Mr. E. Hutton, Pudsey, Leeds.

MR. GEORGE HELLEWELL, of Sheffield, well known for the great care he has for many years bestowed on the birds entrusted to his care for exhibition, is to have a testimonial presented to him. Mr. Wragg, Stoke Park, Ipswich, will receive subscriptions.

WELLINGBOROUGH POULTRY SHOW.

THE first grand annual Exhibition of Poultry, Pigeons, Rabbits, and Cage Birds took place on Friday and Saturday, December 4th and 5th, in the Corn Exchange, Wellingborough. The Birmingham and other Shows being held on or about the same time did not prevent the Wellingborough Committee having 575 entries.

The Canaries were a very pleasing feature in the Exhibition, occupying a centre stage in the large hall, which was entirely filled. The arrangements on the whole were tolerably good considering the maiden efforts of a very hard-working Committee of Management, who appeared to be quite alive to the requirements of the occasion. Mr. Adams, of Coventry, was again successful with his surprising high-coloured Canaries, and won the special prize, a silver medal, for the greatest aggregate number of points. It was a very easy win for him, although other breeders of note put in an appearance with several first-class birds. The classes for Canaries were not very numerous; there were about one hundred cages entered. Mr. W. G. Thompson, Secretary, was most indefatigable in his duties. Judging

was somewhat delayed; but this did not so materially affect the Cage Bird portion of the Show as it did the poultry. We would recommend the Committee another year to have an entire day set apart for judging; this would afford them a better opportunity of arranging the pens for the stock; however, "Rome wasn't built in a day." The Committee did well, and looked after the comfort of the Judges, representatives of the press, and friends, in a praiseworthy manner. The Exhibition was an entire success, having been well patronised by visitors. The Committee contemplate extending their prize list another year.

DORKINGS.—*Cock*.—1, Miss Murray, Thirlstone, Derby. 2, H. Feast, Swansea. 3, G. E. Pilgrim, Hincley; W. Nottage, Northampton; J. Gee, Oxford. *Hen*.—1, J. Gee, 2, W. H. Crewe, Strall, Derby. 3, R. Wood, jun., Mansfield, Notts. 4, H. Feast.

COCHIN-CHINAS.—*Cock*.—1, J. Groney, 2, J. Gunn, 3, Hon. and Rev. G. Vernon, 4, H. Feast; B. Cox, 5, P. H. Davies, jun., March, Camba; S. Barber, Hen. 1, W. H. Crewe, 2, Love, Kingthorpe, Northampton. 3, Hon. and Rev. G. Vernon, Grafton Underwood; A. F. Faulkner, Thrapstone. 4, J. Young, Redditch; W. H. Crewe.

BRAHMA COCHIN.—*Dark*.—*Cock*.—1, J. S. Clarke, Oundle. 2, W. Birch, Barnack, Coventry. 3, H. Stiles, jun., Keston, Kettering. 4, J. S. Clarke; H. Feast; J. M. Atkinson, Alford, Lincoln. 5, H. Feast. 2, M. Leno, Markyate Street, Dunstable. 3, J. S. Clarke; W. Hewson, Alford, Lincoln; W. Birch; J. Watts, Hazlewell Hall, King's Heath, Birmingham. 6, W. Stevens, Northampton.

BRAHMA POOTRA.—*Light*.—*Cock*.—1, Mrs. Peel, Sharnbrook, Beds. 2, M. Leno, 3, J. Hunter, Burton-on-Trent; R. Bird, Fulham, London. 4, A. F. Faulkner, Hen. 1, S. Sambrook, Chipping Camden, Gloucester. 2, M. Leno, 3, Mrs. Peel; J. Hunter; J. R. Marriott, Titchmarsh, Thrapstone (2); W. Birch.

SPANISH.—*Cock*.—1, J. F. Parker, Northampton. 2, J. Gunn, Coalville, Leicester. *Hen*.—1, J. F. Parker. 2, H. Yardley, Birmingham. 3, W. Adams, Northampton.

GAME.—*Black-breasted Red*.—*Cock*.—1, E. S. Godsell, Stroud, Gloucester. 2, H. Budge, Heaton, Derby. 3, B. Cox, Moulton, Northampton. *Hen*.—1 and 2, B. Cox.

Blue.—*Any other colour*.—*Cock*.—1, W. Tillotson, Coates, Leeds. 2, H. Battle, 3, T. Hancock, Northampton. *Hen*.—1, T. Hancock, 2, H. Lotan, Oundle. 3, E. Bockland, Oxford; W. Tillotson; B. Cox. 4, E. Bibby, Wellingborough.

HAMBOURG.—*Cock*.—1, T. Love, 2, S. W. Hallam, Whitwick, Leicester. 3, Hon. and Rev. G. Vernon; W. Griffin, Leicester; S. W. Hallam. 4, O. Thompson, Kettering. *Hen*.—1, T. Love, 2, A. Faulkner, 3, J. Robinson, Garstang. 4, S. W. Hallam (2); W. W. Tickner, Ipswich; J. Robinson. 5, J. C. H. Robinson, Faversham, Beds.

ANY OTHER VARIETY.—*Cock*.—1, G. W. Roathy, Louth (Golden Poland). 2, H. Feast, 3, A. W. H. Silvester, Sheffield (Polish); J. C. Beasley, Dallington, Northampton (Creve-Coeur); R. A. Boissier (Houdans). *Hen*.—1, A. W. H. Silvester (Polish). 2, H. Feast. 3, J. C. Beasley (Creve-Coeur).

LOCAL CLASSES.—1, Howard & Patenall, Wellingborough (Brown Red Game). 2, G. W. Sanders, Wellston (Wild Ducks). 3, G. Galer, Wellingborough (Rosen Ducks); S. E. Hobbs, Wellingborough (Game). 4, J. Burditt, Wellingborough (Muscovy Ducks); J. Compton, Wellingborough (Silver-spangled Hamburgs); C. Clayson, Wellingborough (Spanish); W. Horne, Wellingborough (Game).

DUCKS.—*Aylesbury or Rouen*.—1, J. Gee, 2, E. Hope, Wellingborough. 3, M. E. Jones, Wellingborough; Hon. and Rev. G. Vernon. 4, T. Plumb, Kingthorpe.

GAME BANTAMS.—*Black-breasted Red*.—*Cock*.—2, W. B. Jeffries, Ipswich. 3, W. Adams, Ipswich. 4, W. Baskerville, Manchester; R. Caborn, Biggleswade. 5, W. Adams. 2, W. Adams. 3, W. B. Jeffries, 4, W. Griffin; J. Mayo, Gloucester.

GAME BANTAMS.—*Any other colour*.—*Cock*.—1, W. Baskerville, 2, S. & J. J. Stephens, Ebbley, Stroud. 3, R. J. Hartley, Altrincham. *Hen*.—1, J. Mayo, 2, J. Pearse, Ely. 3, A. & J. J. Stephens.

BANTAMS.—*Any variety not Game*.—*Cock*.—1, A. Storrar, Peterborough. 2, A. and W. H. Silvester. 3, C. Reed, Cambridge. 4, H. Abrah, Hyde Park Place, London. *Hen*.—1, M. Leno, 2, J. Mayo. 3, Rev. F. Tearle, Gazeley Vicarage, Newmarket; R. H. Ashton.

PIGEONS.

POUTERS.—*Cock*.—1, R. H. Blacklock, Sunderland. 2 and Extra 2, C. Martin, Kettering. 3, R. Ashton, Huntingdon; J. Styles, jun.; R. H. Blacklock; C. Martin. 4, J. E. Palmer, Peterborough. *Hen*.—1, J. Styles, jun., Keston. 2, J. E. Palmer.

CARRIERS.—*Cock*.—1, E. Walker, Leicester. 2, J. Styles, jun. *Hen*.—1, E. Walker, 2, W. H. A. Miller, Walsall. 3, J. E. A. Palmer.

TOMBORES.—*Cock or Hen*.—1, H. Yardley, 2, A. & W. H. Silvester.

DRACOONS.—*Cock or Hen*.—1, W. V. Longe, Tuddenham Vicarage, Ipswich. 2, G. Middleton, Ashby-de-la-Zouch.

ANY OTHER VARIETY.—*Cock or Hen*.—1, H. Yardley, 2, W. Nottage, Northampton. 3, A. & W. H. Silvester. 4, C. Martin (Jacobins). 5, J. Atkins, Bedford (Hyacinth); W. Loveday (Blue Turbit); W. Brown, Northampton (Nun); W. H. A. Miller; J. Watts. 6, T. Chambers, Northampton (Foreign Owl); W. Patrick, Kettering (Pigmy Pouter).

SPECIAL SELLING CLASS.—*Cock or Hen*.—1, J. Martin (Pouter). 2, W. Nottage. 3, C. Reed (Barb). 4, Capt. T. Wetherall, Loddington, Kettering (Faintail); T. Chambers (Carrier); J. Atkins (Yellow Dragoon and White Pouter); W. V. Longe; C. Reed (Barb); R. Buffham, Spalding (Black Carrier); E. H. Clarke, Northampton (Dun Carrier); L. Watkins (White Pouters).

RABBITS.

LOP-EAR.—*Buck or Doe*.—1, J. Boyle, Blackburn. 2, F. T. Banks, Doughty Street, London.

HIMALAYAN.—*Buck or Doe*.—1, T. H. Dennis, Wellingborough. 2, J. Boyle.

DUTCH.—*Buck or Doe*.—1, J. Martin, Kettering. 2, F. Sabbage, Northampton.

ANY OTHER VARIETY.—*Buck or Doe*.—1, T. Garner, Northampton (Angora), 2, J. Martin, Northampton (Angora). 3, J. Boyle (Silver-Grey); J. Tebbitt, Northampton (Belgian Blue); E. Robinson, Kettering (Silver-Grey).

SPECIAL SELLING CLASS.—*Buck or Doe*.—1, F. Sabbage, 2, E. Robinson (Silver-Grey). 3, T. S. Lacey, Leicester (Blue and White); W. Hancock, Northampton (Angora). 4, J. Abbott, Dodington, Northampton; J. Martin (Angora).

LOCAL CLASS.—*Buck or Doe*.—2, J. Lonsdale, Wellingborough (Yellow and White). 3, C. J. King, Wellingborough (Tortoiseshell). 4, J. Abbott; F. Glover, Wellingborough (Angora). 5, J. Abbott; R. Sharp, Wellingborough (Lop).

CAGE BIRDS.

NOBWITH.—*Clear Jonque*.—1 and 2, J. Adams, Coventry. 3, H. Watson, Derby; J. Athersuch & Son, Coventry (2). 4, G. Cox, Northampton; Moore & Wynne, Northampton. 5, J. Clarke Derby. 6, Clear Buff. 1 and 2, J. Adams.

Jonque.—*Marked or Variegated*.—1 and 2, J. Adams. 3, J. Athersuch and Son. 4, J. Clarke. 5, Howe & Robinson, Wellingborough. 6, Clear or Variegated. 1, J. Torr, Derby. 2, J. Adams. 3, Howe & Robinson. 4, S. Stratford, Northampton. 5, J. Adams. 6, Disqualified, Moore & Wynne. 7, Cinnamon, Clear, Ticked, or Variegated. 1 and 2, J. Adams. 3, J. Athersuch and Son (2); Howe & Robinson. 4, C. Hillier, Northampton; Moore & Wynne; S. Tones.

BUFF.—*Marked or Variegated*.—1 and 2, J. Adams. 3, J. Athersuch and Son (3). 4, G. Cox; Moore & Wynne. 5, H. Watson. 6, Clear or Variegated. 1, J. Adams. 2, S. Stratford. 3, G. Cox; Martin & Griffin, North-

ampton. 4, J. Adams; J. Torr (2). 5, S. Tones, Northampton; Howe & Robinson. 6, Clear, Ticked, or Variegated. 1 and 2, J. Adams. 3, J. Athersuch & Son; Moore & Wynne. 4, C. Hillier.

SELLING CLASS.—1, J. Athersuch & Son. 2, G. Cox. 3, S. Stratford. 4, J. Athersuch & Son; W. & T. Wright, Northampton; Moore & Wynne; S. Tones. 5, C. Hillier; S. Stratford; Moore & Wynne; S. Tones; Howe & Robinson (Marked and Clear Jonque). 6, G. Chipson; Howe & Robinson (Clear Jonque). 7, British Birds. 8, Any variety. 1, T. Knight, Northampton (Skyark). 2, A. Cleaver, Wellingborough (Hallinck). 3, W. & T. Wright. 4, A. E. Bayes, Wellingborough (Lark); J. Spencer, Wellingborough (Bulfinch).

JUDGES.—*Poultry and Pigeons*: Mr. W. B. Tegetmeier; *Rabbits*: Mr. G. Johnson; *Canaries*: Mr. G. J. Barnesby.

HAMILTON ORNITHOLOGICAL ASSOCIATION'S SHOW.

This Show was held in the Town Hall, Hamilton, on the 5th inst., when the following awards were made:—

DORKINGS.—1 and 3, Mrs. Alston, Craighead, Hamilton. 2, E. Hunter, Hamilton. 4, R. Shearer, Hamilton. *Chickens*.—1, W. Cornett, Dalsarf. 2, E. Hunter, Hamilton. 3, G. Scott, Lanark. 4, W. Scott, Prestfield, Blantyre.

SPANISH.—*Black*.—1, G. Cleland, Hamilton. 2, J. More, Avon Braes. 3, J. Hunter, Alva. 4, J. L. Horne, Airdrie. *Chickens*.—1, G. Cleland, Hamilton. 2, G. Scott. 3, J. More. 4, W. Smellie, Wishaw.

COCHIN or BRAHMA POOTRA.—1, A. M. Donald, Stirling. 2, T. Bruce, Busby. 3, J. Pollock, Busby. 4, Mrs. A. Craighead, Hamilton.

SCOTTISH GAES.—1, J. Meiklem, Thimacra, Quarter. 2, W. M. Millan, Silverwell, Bothwell. 3, Mrs. Lukeman, Hamilton. 4, W. Hamilton, Hamilton. *Chickens*.—1, J. Marshall, Hamilton. 2 and 3, Mrs. Lukeman. 4, C. Gray, Wishaw.

HAMBOURG.—*Golden-spangled*.—1 and 2, A. Begg, High Blantyre. 3, H. M. Millan, Blantyre. 4, S. Young, Craighead, Motherwell. *Golden-pencilled*.—1, J. Conkey, Darvel. 2, J. Mather, Strathaven. 3, C. W. Gibbs, Sutton Bridge. 4, S. Young, Rumblyingsyke.

HAMBOURG.—*Silver-spangled*.—1, A. Stirling, Grabamston, Barrhead. 2, S. Young, 3, R. Bruce, Busby. 4, J. Kerr, Cusrow, Stewarton. *Silver-pencilled*.—1, P. Lynn, Newmans. 2, J. Young, Rumblyingsyke. 3, H. M. Millan, Glasgow. 4, J. Young, Hamilton.

GAME.—1, J. & C. Sneddon, Tolleross. 2 and 3, H. L. Horne, Airdrie. 4, W. Weake, Airdrie. *Chickens*.—1, D. Ferrier, Rutherglen. 2, J. C. Sneddon. 3, W. Weake. 4, J. Gray, Gifford, Wishaw.

ANY OTHER VARIETY.—1, J. Laird, Johnstone. 2, A. W. Wylie, Jabstone. 3, J. C. Shaw, Barrhead. 4, W. Gibb, Wishaw.

BANTAMS.—*Game*.—Special and 1, G. R. Scott, Beveridge, Dunfermline. 2, J. Rouston, Rutherglen. 3, W. M. Gregor, Stonehouse, Larkhall. 4, J. Mather, Strathaven. *Any other variety*.—1 and 2, F. W. Kerr, Beith. 3, J. Wright, Ferniegate, 4, C. Gray, Wishaw.

COCKS.—1, Mrs. Alston, Craighead, Hamilton. 2, J. Meiklem. 4, J. Lightbould, Hamilton. 3, H. M. Millan, Blantyre.

SELLING CLASS.—1, G. Scott. 2, A. Youl, Airdrie. 3, H. L. Horne. 4, Mrs. Lukeman.

PIGEONS.

POUTERS.—*Black and Blue*.—1, R. Arbuckle, Parkhead, Glasgow. 2, J. Young. 3 and 4, R. Crow, Larkhall. *Any colour*.—1, W. S. M. Allister, Lanark. 2, A. Dunbeavey, Glasgow. 3, J. Cochran, Strathaven. 4, J. Forrest, Quarter.

FANTAILS.—1 and 3, J. Laird, Johnstone. 2, G. Young. 4, J. Young.

TOMBORES.—*Long-faced*.—1 and 2, J. Glen, Cambuslang. 3, W. M. Clive, Ayr. 4, J. Whiteford, Hamilton.

ANY OTHER VARIETY.—1, J. Glen. 2, J. E. Spence, Seafeld, Broughty Ferry. 3, R. Pollock, Quarter. 4, R. Crow, Larkhall.

SELLING CLASS.—1 and 2, H. C. Hinds, Hamilton. 3 and 4, J. Conkey, Darvel.

CANARIES.

YELLOW.—*Cock*.—1, J. Lindsay, Hamilton. 2, J. Cooper, Carlisle. 3, R. Pollock, Quarter. 4, J. M. Cuthin, Airdrie. *Hen*.—1, J. Graham, Trudston. 2, J. Lindsay, Hamilton. 3, W. Thomson, Hamilton. 4, T. Lidsay, Wishaw.

BUFF.—*Cock*.—1, L. Jackson, Auchinheath, Lesmahagow. 2, R. Pollock. 3, D. Gibb, Auchinheath, Lesmahagow. 4, H. Hillan, Hamilton. *Hen*.—1, J. Paton, Rutherglen. 2, J. M. Cuthin, Airdrie. 3, R. Green. 4, J. Pettigrew, Carlisle.

PHEASANTS.—*Yellow*.—*Cock*.—Special and 1, J. M. Cuthin. 2, G. Grabame, Rutherglen. 3, J. Pettigrew. 4, R. Jackson, Carlisle. *Hen*.—1, J. Pettigrew. 2, A. Moffat, Wishaw. 3, D. Gibb. 4, T. M. Millan.

PHEASANTS.—*Buff*.—*Cock*.—1, T. Newbigging, Lanark. 2, D. Gibb. 3, A. S. Barr, Glasgow. 4, J. Boyce, Hamilton. *Hen*.—1 and 3, J. Pettigrew. 2, D. Gibb. 4, J. Graham, Trudston.

GREEN AND FOUL.—*Cocks*.—1 and 3, J. Barr, Bridgeton, Glasgow. 2, J. Graham. 3, J. Boyce, Hamilton. *Hens*.—1, T. Lidsay. 2, J. Couper, Carlisle. 3, H. Hillan, Hamilton. 4, J. Lidsay.

SELLING CLASS.—1, E. Hagner, Wishaw. 2, A. Moffat. 3, J. Allison, Paisley. 4, A. Baidie, Hamilton.

GOLDFINCH MULES.—1, W. Haldstone, Airdrie. 2, J. Todd, Crossford, Lanark. 3, P. Clark, Hamilton. 4, J. Pettigrew.

RABBITS.—*Fancy*.—1, G. Cleland, Hamilton. 2, P. M. Geeban, Hamilton. 3, R. Brownlie, Hamilton. *Common*.—1, R. Frame, Hamilton. 2, R. Watta. 3, A. Thomson, Tophall, Hamilton.

CATS.—1, A. Torrance, Glasgow. 2, H. Lees, Strathaven. 3, C. Brownlie, Bent, Hamilton. 4, H. L. Horne.

JUDGES.—*Poultry*: Mr. J. Green, Glasgow; W. Pettigrew, Lesmahagow; Mr. T. M. Keane, Pollokshaws. *Pigeons*: Mr. J. Muir, Glasgow. *Canaries*: Mr. J. Gibson, Paisley; Mr. R. Pollock, Quarter; Mr. R. Pettigrew, Newarthill; Mr. W. Russell, Wishaw. *Cats and Rabbits*: Mr. A. Morrison, Glasgow.

CLARK GREEN (BATLEY) BIRD SHOW.

On the 28th ult. an All-England Exhibition of Canaries and other birds was held at Clark Green, Batley. Nearly two hundred birds were exhibited in the twenty-four classes specified. The arrangement of the catalogue was not so good as others we have seen, the classes containing the various breeds of Canaries and Mules being so mixed up. The following is the list of prizetakers in the classes, which appear somewhat different to the way the catalogue specifies them:—

BELGIANS.—*Clear or Ticked Yellow*.—1 and 2, T. M. Reid, Halifax. 3, L. Reik, Dewsbury. *Clear or Ticked Buff*.—1, J. Copley, Huddersfield. 2, T. M. Reid. 3, L. Reik.

NORWICH.—*Clear or Ticked Yellow*.—1, J. Stevens, Middleborough. 2, I. Holroyd, Bradford. 3, W. Holmes, Batley. *Clear or Ticked Buff*.—1, T. M. Reid. 2, Cleminson & Ellerton, Darlington. 3, W. Holmes.

MANCHESTER COPPY.—*Yellow, with Clear or Grey Crest*.—1, T. M. Reid. 2, J. Wilkinson, Great Horton. 3, L. Belk. *Buff, with Clear or Grey Crest*.—1, T. M. Reid. 2 and 3, L. Belk.
 PLAIN HEADS.—*Yellow, Clear, or Ticked*.—1, L. Belk. 2, P. Horne, Farsley. 3, M. Ballance, Dewsbury. *Buff, Clear, or Ticked*.—1, W. Hutton, Baildon. 2 and 3, J. Thackray, Bradford.
 YORKSHIRE.—*Clear Yellow*.—1, W. Hutton. 2, Cleminson & Ellerton. 3, J. Wilkinson. *Clear Buff*.—1, Fawcett & Anderson, Baildon. 2 and 3, J. Overend, Ravenshorpe.
 YORKSHIRE.—*Evenly-marked Yellow*.—1, L. Belk. 2, J. Thackray. 3, J. Wilkinson. *Evenly-marked Buff*.—1, S. Hainsworth. 2, J. Overend. 3, D. Hall, Buddersfield.
 LIZARDS.—*Golden-spangled*.—1, Cleminson & Ellerton. 2, M. Ballance. 3, L. Belk. *Silver-spangled*.—1, J. Stevens. 2, S. Hainsworth, Farsley. 3, T. Holroyd. 4, L. Belk; Cleminson & Ellerton; T. M. Reid (3).
 CRANFORD.—1, J. Pringle, Newcastle-on-Tyne. 2, E. Holroyd. 3, Cleminson & Ellerton. *Variegated*.—1, T. Tenniswood, Middlesbrough. 2 and 3, L. Belk.
 GREEN CANARY.—1, T. Tenniswood. 2, J. Stevens. 3, D. Gaunt.
 FINCHES.—1, J. Horne. 2, J. Overend. 3, T. Tenniswood.
 MULES.—1, J. Stevens. 2, W. Hutton. 3, T. Tenniswood.
 LINNETS.—1 and 2, J. Bage, Middlesbrough. 3, T. Tenniswood.
 LINNET MULES.—1, J. Stevens. 2, W. Hutton. 3, W. Exley.
 SELLING CLASS.—1, D. Hall. 2, J. Overend. 3, T. Tenniswood.
 BEST COMMON COTTAGE BIRD IN BATLEY.—1, T. Hall. 2, B. Aspinall. 3, J. Firth.
 JUDGE.—Mr. Harrison.

THE BAILDON PIGEON AND BIRD SHOW.—The Committee for carrying out the next annual Exhibition of Pigeons and Canaries, Mules, and British and Foreign Birds, to be held at Baildon on the 8th and 9th of January, 1875, have issued a very excellent schedule, well worthy the attention of intending exhibitors. The programme sets forth thirty-one classes for cage birds and fifteen classes for Pigeons, the prizes for which will be 15s., 10s., and 5s. each. Extra prizes will be given, consisting of a silver cup for the best competitor in the cage-bird classes, and a cruet stand to the best competitor. A silver cup and a silver medal will also be awarded to the Pigeons. Suitable pens will be provided for the Pigeons.

THE TURBIT.

The solid Turbits are of one uniform colour throughout, excepting the tail wing-bars, and hackle or neck feathers of the Blues and Silvers. They have a frill and shell-crest precisely as in shouldered birds, but are somewhat larger, and not so fine in head, beak, and gullet; except the solid White, which is equally as good as the shouldered birds in the points mentioned. They have a reddish-orange eye as in Owls. The beak in the Blue is dark, as in common Blue Pigeons. In the Black they are very light at the base, but dark at the point. In all the others the beak is light in colour. I have never seen or heard of plain Blues or Silvers without the wing-bars, and I doubt very much whether they have yet been produced. Within the past few years I have bred them of the following colourings: Blues and Silvers with black wing-bar, well-defined bar across the tail, and dark neck feathers; also plain Blacks, Reds, Yellows, Whites, and Duns. I have not yet been able to breed Blues to my satisfaction (although there are fair birds of this colour at the present time in this city), but I am in hopes of accomplishing it the present season. In my attempts to breed these birds I have at the present time one pair mated that are very poor in frill and colour, showing brown on the wing-bar. They have at this writing their second pair of young in the nest, one of which is a Yellow, and the other a clear Silver; in the first nest one is a clear Red, the other a dark Silver. I make this statement to show the importance of getting birds from a well-known strain, and also to show how they will sport in colour when not well bred, although in this case any of the young are worth more than their parents.

To further illustrate the importance of buying birds of a good strain, I will here state that in 1871 I bought a pair of solid Blacks from a dealer who is noted for pulling foul feathers (our friend Morgan's article on the Nuns had not then been published in the Journal), a habit which he had put into practice in the present case; for in a few weeks the under feathers in the tail of the female came out a pure white; but, as the sequel will show, they proved a valuable pair of birds to me. The first season they bred two pairs of Black young ones; the second season (1872) they bred Blacks, Blues, Yellows, Reds, and Duns. The next season (1873) they produced only two or three young (one of which was the brightest solid Yellow I ever owned, and at this time, 1874, is mated to one of the old Yellow stock, and is producing fine young, true to colour). While on this subject I will state that in 1872 I had one pair of solid White birds that produced in rapid succession five pairs of pure white young, all of which they raised. In the following season, as with the Blacks, they produced only two nests, only one bird of which was raised. In the first nest was one white one, and one with a large patch of drab on one side. In the next nest one was pure white as before, the other was a pure drab or light dun. This was unaccountable to me, as I had every reason to believe that the birds I had were pure-bred in every respect; but, in both cases, it will be noticed that variation in colour was produced during or immediately after excessive breeding. The

first sign of deterioration in solid Turbit is usually seen in the tail—especially with the Blues and Silvers—which will occasionally throw white feathers. I have had solid white birds breed young with smoky tails, showing plainly that at some time or other black-tailed Whites had been bred with them, or used in forming the solid bird. But these imperfections are not often seen until the latter part of the season, when the birds are weakened by breeding.

The Reda I gave up entirely, as I seldom got them to snit me, the colour being washy, with ash-coloured tails. Neither have I ever seen first-class Reda in all points; and, as a matter of course, the Yellows cannot be as fine in colour, as Yellows bred to Yellows continually will become paler in colour. This mating of Yellows has been a matter of necessity, not having good Reds to cross in, which no doubt would have helped them much.

The other colourings not yet enumerated are the solids with white tails. Of these I have had Blues, Silvers, Yellows, and Duns, and I am quite positive that Blacks and Reds could be found in this country at this time; if not, they could easily be produced. This class of birds will occasionally throw a solid colour, but the tendency is usually the other way. I have also had solid white birds with black, blue, red, and yellow tails. As far as my experience goes the white birds with coloured tails seldom breed foul birds. The two latter colourings I never faucied enough to breed them long, as the coloured tail on white birds or white tail on coloured birds always had the appearance of a defect to me—the tails not being seen except from a back view, and when seen from the front they could not be distinguished from the solid birds.—JOS. M. WADE.—(*American Fanciers' Journal*.)

[The bird above described and called the solid Turbit in contradistinction to the real Turbit—called, it appears, in America the shouldered Turbit—is a variety of Pigeon unknown in England, and likely to remain so, for I should think it would be quite undesired by English fanciers. In brief words it is an English Owl with a shell crown, that crown obtained possibly by a cross with the Nun. This solid Turbit appears to breed anything but true to colour, according to Mr. Wade's account, which is a sure sign of its being itself bastard-bred. His experience with his pair of Blacks reminds me of that of a friend of mine, who bought at a show a pair of some kind of German Toys, very correct indeed in feather, for the "gardening" had been done extensively. In a month they were much altered in plumage, and lo! they bred young ones of every variety of colour except what they were and what they ought to have been.]

The use of the word "solid" is curious, meaning whole-coloured, as different to our use of the word. There is, however, in Wiltshire a meaning attached to the word which I have never met with elsewhere: it is "steady or slow." A groom will say, if he has just given his horse a feed of cut grass and you require the steed at once, "Please, sir, let him go 'solid,' for he has just been fed."—WILTSHIRE RECTOR.]

RABBIT-KEEPING.—No. 1.

THE HUTCH I use is one of my own invention, and in simplicity and efficiency I claim that it is as near perfection as one can get in this rough-and-ready world of ours. I use two styles, one for breeding, and one for weaning.

The breeding hutch (fig. 150) is 4 feet 6 inches long, by 3 feet

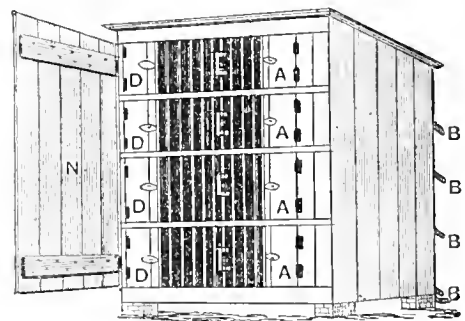


Fig. 150.—Breeding House.

wide, and 6 feet high. It is four storeys high, and each storey is 18 inches from floor to ceiling; each storey is divided by a partition into two apartments—a feeding and a breeding-room. The floors are made of pine or spruce boards, tongued and grooved, well seasoned, and put together when good and dry, so that they will not shrink open.

The breeding apartment is 17 inches wide, and extends the whole depth of the hutch (3 feet); a small door is cut in the back part of the partition to allow the Rabbit to pass from one

apartment to the other. A few days before the doe kindles I place a strip of one-half-inch board, 6 inches wide and 17 inches long (see r, fig. 151), across the front end of the apartment (in grooves formed by nailing on two small strips) about 12 inches from the end; this forms the breeding-nest, 12 by 17 inches. I fill this with straw, in which the doe forms her nest. In placing this board I do not allow it to rest directly on the floor, but about three-quarters of an inch above it; the floor has a gentle descent towards the back part of the hutch. The advantages of this arrangement are—the nest being on the elevated part of the floor, all the urine drains through the straw on to the floor and out under the board, leaving the nest perfectly dry at all times; the small door (A, fig. 150) opens directly at the nest, so that the young can be easily examined at any time, and by letting the board extend about 3 ins. above the straw the young will not get out of the nest until they are old enough to take care of themselves and get back again. By placing a slide over the door (S, fig. 151) the young may be shut out of the feeding apartment while the old doe is eating her green food, too much of which is sure death to young Rabbits.

The feeding apartment is 2 feet 10 inches by 3 feet. It has a wire front (B, fig. 150), to admit sun and air. The wires are galvanised, and placed three-quarters of an inch apart to keep the young Rabbits from squeezing through and falling out. On the side in front are the doors opening into the feeding apartments through which the Rabbits are fed. (See r, fig. 150.) The floors all descend towards the back, as before mentioned, and extend out about 3 inches beyond the back side of the hutch (see r, fig. 152); the back part of the hutch is furnished with swinging doors (O, fig. 152), one opening into the breeding apartment, and forming, when closed, the back of it, and one opening into the feeding apartment, and forming, when closed, the back of that apartment. These doors do not shut down upon the floor, but when closed there is an aperture about three-quarters of an inch between the floor and the bottom of the door.

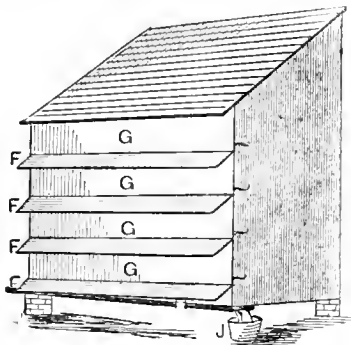


Fig. 152.—Back View of Breeding Hutch.

I claim that this hutch is self-cleaning, for the urine runs out under these doors, and the dung also is worked down the floor by the Rabbits, and falls out into the trough (H, fig. 152), which is also inclined, and leads into the pail at the end (S, fig. 152), which receives the whole and is easily emptied. A large door (N, fig. 150), made of tongued and grooved boards, swings around against the end of the hutch, when it is open in clear weather, and in stormy weather it is shut and covers up all the wire front, and keeps out the rain. I also keep it closed at night in winter. —W. F. HALLOCK, Mattituck, Suffolk Co., N.Y.—(*The American Pet Stock Bulletin*.)

THE HIVE CONTROVERSY.

"B. & W." has lately told the readers of this Journal that he expresses "only the general sense of annoyance which exists at the constant nibbling by Mr. Pettigrew at those who differ from him." Is this true, or is it not? If it is true it is high time for me to turn my attention to something else than scribbling about bees. If it is not true, there is injustice done in making the assertion. In writing I do not deal with those who differ in opinion from me; indeed, my aim is to get as far removed from them as possible. Not a word that I have written for the press for years bears the impress of snubbing or nibbling, and as to "the general sense of annoyance which exists," I may be permitted to say that it is not general, but

limited to those who differ in opinion from me. The late Mr. Woodbury was delighted to record the successes of every class of bee-keepers. I think I have abundant evidence to prove that my very humble efforts have given more satisfaction to the apirians of this country than offence, hence I have continued to write while some have been sneering at me. While they have been finding fault, hundreds, if not thousands, have been thanking me for the information given, and asking for more at the same time. The productions of my pen have been copied into many newspapers and magazines, and have been commended by about eighty of our most influential periodicals. A very large edition of my book on bees has been sold, and a new edition has been loudly called for for months. All these things are more astonishing to me than to anybody else, and I know that in mentioning them I am stooping to the weakness of egotism; but I do it to rebut the charge of being an annoyance to the public.

In seeking to advance truth or give instruction all personalities should be kept out of sight. The appearance of these is, generally speaking, an indication of an inability to uphold a cause by fact and argument. If I have ever used an unkind word or a personality in any of my published letters, I shall be glad to withdraw it. I do not remember ever mentioning even a name but in self-defence. My sole aim has been to impart information, and to help others to the formation of correct ideas in apiculture. The highest models and the greatest successes in bee-keeping that could be found in this country have been held up before the minds of the readers. By holding up these successes a great impulse has been given to apiculture, and the industry of a large section of bee-keepers has been guided.

Let me warn the apirians readers of this Journal not to confine themselves to the imitations of others. They may travel along the same road without treading in their footprints. Those who never propose to surpass are never likely to equal others. Let all have a higher ambition than to be mere followers, for those who follow are always behind. One of the greatest successes ever reached in this country that we have heard of has been accomplished this year in north-west Aberdeenshire by Ligurian bees in skeps 2 inches deeper than those I use. The gross weight gained by the hive and its colonies was 373 lbs. All honour to Mr. G. Campbell, the owner and manager of this hive.—A. PETTIGREW, Sale, Cheshire.

[This temperate and excellent letter will conclude the discussion relative to "wood versus straw" for hives. We know from letters we have received from all the disputants that they think most highly of their opponents' bee knowledge, and we are quite sure that if they could meet in our office and advance their opposed opinions by tongue instead of pen, they would shake hands and agree to differ amicably. We remember a gentleman saying in a note that another was "a donkey," and that other gentleman was deeply offended. They met, and the writer of the note said, "I did write that you are a donkey, and I think so." They shook hands, because the "donkey" said, "Now you say it pleasantly."—EDS.]

THE SLINGER.

THIS is, in our opinion, a more descriptive name for the instrument than that of "Honey-extractor," for it casts or slings honey outwards by centrifugal action. For many years I have been anxious to see one at work. Well, one that was exhibited and admired at the Crystal Palace Show has been sent here to be fairly tested. Some of the most intelligent and leading apirians in this part of the country came here to see it at work. Having plenty of hives well filled with honey, two of them were placed in ainery twenty-four hours before the time of trial. Fire was applied to the boiler of thisinery with a view to raise its temperature to 100°. The combs in the hives were thus made quite as soft, and the honey in them quite as warm and liquid, as we ever find them in strong hives in the dog days. Everything that could be done by artificial means to give the instrument a fair trial was adopted and carried into execution. The combs for experiment were uncapped—that is to say, the lids of the cells were removed, and then placed in wood-and-wire frames. Now the instrument is put in motion, and all present are anxious to see how it does its work. "Reverse the motion to empty the combs on the other side." The frames are now examined. The clover or flower honey has been slung out, or the greater part of it, but the heather honey will not go at the bidding of the slinger. The strongest arms of the strongest gentlemen present could not make the instrument cast the heather honey from the combs. The fault is not in the instrument, for it is a good one, and revolves rapidly enough; but heather honey can never be cast from combs in this way. The clover honey cast out was full of little bits of broken combs, but these were easily removed by straining the honey through thin towelling.

Some writers who are anxious to see slingers extensively used tell us that the honey obtained through them is inferior in quality to run honey. What was taken here by the slinger is

quite equal in quality to honey extracted by the old process. The honeycombs placed in the slinger were without brood, and therefore I am not able to say whether the whirling of the instrument would cast out unsealed brood as well as honey. If unsealed brood be disturbed by the whirling of the machine the honey will be very impure, and the machine itself comparatively worthless as an extractor of honey.

Being anxious to have an instrument able to extract honey from combs in a speedy and satisfactory manner, I regret that the slinger tried here has not proved itself equal to our wants and expectations. The trial here was rather disappointing to all the gentlemen present.

The patrons of the slinger take pains to inform the public that where the moveable-comb system is adopted the instrument extracts the honey without destroying the combs, thus effecting a saving of honey and preventing loss of time in comb-building. They tell us that swarms spend their first year in filling the bar frames with combs; in after years the honey is extracted by the slinger. To inexperienced bee-keepers this theory may appear reasonable and inviting. Old and successful bee-farmers are not so easily influenced; they prefer the certain to the uncertain. This morning's post brought a letter from an old and successful apiarian in Scotland, giving the results of his practice this year. He uses straw hives of considerable dimensions. One of his hives yielded four swarms. The first one rose in weight to 126 lbs., the second to 71 lbs., the third to 47 lbs., the fourth to 36 lbs., the mother hive to 93 lbs.; altogether to 373 lbs. gross. Is it possible to induce this man to abandon his mode of managing bees, which is so successful and profitable, for one that is yet uncertain and doubtful? Those who manage bees on the non-swarmling system with moveable combs have much lost ground to travel over ere they can walk side by side with this man. In bare-hunting or coursing, greyhounds are judged by their speed. In this sport there are "go-byes," "turns," and "catches." Old dogs that run often become cunning, and run second with a view to get "the catch" at "the turn." A good catch or harvest of honey is more to an old bee-farmer than anything else in apiculture.

The harvest of honey obtained from the hive and its swarms already mentioned is an extraordinary one; but swarms of 100 lbs. each at the end of the first season are becoming common, and every fine season will become more plentiful; and therefore it appears a very roundabout road to put swarms into hives with a view to get a harvest of honey from them through the slinger in the second year of their existence. This is mentioned with a view to ask the readers of this Journal to consider how black and tough combs are after two years' use for breeding purposes. The slinger is introduced on purpose to preserve such combs. We think combs are quite old enough at the end of their second year. At that age they are, generally speaking, not only black and tough but pollen-bound—that is to say, their centre parts are clogged with bee bread. The bees cannot find empty cells for the eggs laid by the queens. We hold that the preservation of old combs in hives is neither wise nor profitable. Bees thrive better and gather more honey in combs young and sweet than they do in combs two years old. A swarm put into a hive in May will fill it with combs and gather more honey in a good season than any kind of hive managed on the non-swarmling system. The ventilation of this subject is at the present time of great importance to the thinking and intelligent bee-keepers of England, and its consideration may make some of them hesitate before they purchase slingers for casting honey out of combs too old for keeping, and young combs are rather too tender and easily broken for the machine. I look at the question broadly and without a shade of prejudice, and thus looking at it cannot see that apiculture will gain much by the introduction and use of the American slinger. I fancy that one trial will be enough for bee-farmers and cottagers.

Honey-taking is not pleasant employment, and many advanced bee-keepers would be gratified and thankful if some of our inventive apiarians would set themselves to the task of producing an instrument for extracting honey from combs speedily. The preservation of combs should not be considered. The combs of a large hive yield about 5s. worth of wax; this sum would buy sugar enough for a large swarm, and which, if properly given, would enable the bees to fill an ordinary bar-frame hive or a 16-inch straw one with combs, and store up food enough for themselves from September till March. What advantage, then, can be found in the use of old combs? Most certainly there can be no gain or profit in their retention. Lately we called on an able apiarian who showed us about a dozen of good stocks, three of which were sugar-fed, and one of these is a bar-framer, the other two being 16-inch straw hives. The bar-frames had been partially filled with secondhand combs in the way shown at the Crystal Palace. The syrup was stored in the combs without any additions being made to them. The combs in the straw ones had been built wholly from the syrup, and nearly filled all the spaces. I valued the straw stocks at 10s. a-piece higher than the bar-framer, the combs of which had been taken from other hives and strapped in. In conclusion, I ask the readers of this

Journal to think calmly on, and take a comprehensive view of, the questions discussed in this letter, for it is very important for bee-keepers seeking profit to adopt and keep the right path.—A. PETTIGREW.

OUR LETTER BOX.

BIRMINGHAM POULTRY SHOW.—"You state that my first-prize Partridge Cochon pullets should have been in the adult class. Allow me to say that your opinion is entirely wrong, one of them having been hatched on the 9th of April, and has never been exhibited before; the other was hatched on the 23rd of February, and was exhibited once previously—viz., in the chicken class at Southport in August last.—T. STRETCH, *Ormeau*."

SPOTS IN CARRIERS' EYES (*Subscriber*).—Carriers as to their wattles are highly artificial birds, and a wide departure in any way from nature's type causes a liability to disease. The immediate cause may be a light or cold draught, then comes a running; and a fold of the wattle becomes literally a spout to carry off that running, and mischief soon grows. Cut off the spouts—and mind and cut low enough—with a sharp pair of scissors, and then after bathing the eye and the blood ceasing, put on a little cold cream or any grease that has no salt in it. Put more grease on for a few days, and the wound will soon heal. Watch your bird carefully lest he get any injury, and of course separate him from others.

BEE-KEEPING.—The interesting notes of "P. H. P." and others are unavoidably deferred to next week.

BELGIAN HARE RABBIT (*G. H. R.*).—The small spot would not disqualify it.

METEOROLOGICAL OBSERVATIONS,

CAMPDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W.; Altitude, 111 feet.

DATE.		9 A.M.					IN THE DAY.					Rain.
1874. Dec.	Baromet- ter at 32° and Sea Level.	Hygrome- ter.		Direction of Wind.	Temp. of Shade at 5 feet.	Shade Tem- perature.		Radiation Temperature.		In. —<		

REMARKS.

2nd.—Fine frosty day throughout.
3rd.—Very slight frost all day, but rather warmer at night.
4th.—Hazy morning, damp and dull, though not rainy; wind high at night.
5th.—Another damp dull day; much warmer towards night.
6th.—Rainy all day, at times heavy rain; high wind and heavy rain for a few minutes about 5.15 P.M.
7th.—Very bright and fine all day, but with a cold frosty wind all day; bright starlight night.
8th.—A decidedly rainy and uncomfortable day, not a glimpse of the sun, but continued drizzle, with heavy rain at times. Barometer falling rapidly at night, and high wind.
A wet, windy, winter week.—G. J. SYMONS.

COVENT GARDEN MARKET.—DECEMBER 9.

WE continue well supplied, and the demand remains moderate, so that scarcely any advance can be looked for at present; a week may make some difference. A fine parcel of St. Michael Pines is to hand, and will be offered at auction in the latter part of the week. Apples of English growth reach us by heavy consignments from the western counties, realising from 2s. 6d. to 4s. the bushel. Potato trade heavy, large arrivals. Cornish Broccoli good.

FRUIT.

	s.	d.	s.	d.		s.	d.	s.	d.
Apples.....	1	0	1	6	Oranges.....	1	0	10	0
Chestnuts.....	10	0	20	0	Pears, kitchen.....	100	4	0	10
Figs.....	1	0	1	6	Pears, dessert.....	100	4	0	10
Cobs.....	1	0	1	6	Pine Apples.....	100	4	0	10
Grapes, house.....	1	0	1	6	Plums.....	100	4	0	10
Lemons.....	100	5	0	12	Walnuts.....	100	4	0	10
Melons.....	1	0	5	0	ditto.....	100	4	0	10

VEGETABLES.

	s.	d.	s.	d.		s.	d.	s.	d.
Artichokes.....	100	0	0	0	Leeks.....	100	0	0	0
Asparagus.....	100	0	0	0	Lettuce.....	100	0	0	0
French.....	100	0	0	0	Mushrooms.....	100	0	0	0
Beans, kidney.....	100	0	0	0	Mustard & Cress.....	100	0	0	0
Broad.....	100	0	0	0	Onions.....	100	0	0	0
Beet, red.....	100	0	0	0	Pickling.....	100	0	0	0
Broccoli.....	100	0	0	0	Parsley per doz.....	100	0	0	0
Brussels Sprouts.....	100	0	0	0	Parsnips.....	100	0	0	0
Cabbages.....	100	0	0	0	Peas.....	100	0	0	0
Carrots.....	100	0	0	0	Potatoes.....	100	0	0	0
Cauliflowers.....	100	0	0	0	Kidney.....	100	0	0	0
Celery.....	100	0	0	0	Radishes.....	100	0	0	0
Coleworts.....	100	0	0	0	Rhubarb.....	100	0	0	0
Cucumbers.....	100	0	0	0	Salsify.....	100	0	0	0
Endive.....	100	0	0	0	Scorzonera.....	100	0	0	0
Fennel.....	100	0	0	0	Sea-kale.....	100	0	0	0
Garlic.....	100	0	0	0	Shallots.....	100	0	0	0
Herbs.....	100	0	0	0	Spinach.....	100	0	0	0
Horseradish.....	100	0	0	0	Tomatoes.....	100	0	0	0
					Turnips.....	100	0	0	0
					Vegetable Marrows.....	100	0	0	0

WEEKLY CALENDAR.

Day of Month.	Day of Week.	DECEMBER 17-23, 1874.	Average Tempera- ture near Loudon.			Rain in 43 years.	Sun Rises	Sun Sets.	Moon Rises.	Moon Sets.	Moon's Age.	Clock after Sun.	Day of Year.
			Day.	Night.	Mean.	Days.	m. h.	m. h.	m. h.	m. h.	Days.	m. h.	
17	Th	Oxford Term ends.	45.9	34.0	39.9	26	4	48	42	0	8	1	351
18	F		45.8	33.7	39.7	17	4	8	49	3	41	1	352
19	S	Royal Horticultural Promenade and Band. 4 SUNDAY IN ADVENT.	45.4	32.5	39.5	18	5	8	50	3	10	1	353
20	SUN		44.1	33.6	38.9	23	6	8	50	3	31	1	354
21	M	Shortest Day.	44.1	34.0	39.0	21	6	8	50	3	0	2	355
22	Tu	PRINCE CONSORT buried, 1861.	45.0	32.5	38.7	19	7	8	51	3	43	2	356
23	W		44.1	31.7	37.9	15	7	8	52	3	43	3	55

From observations taken near London during forty-three years, the average day temperature of the week is 44.0°; and its night temperature 33.1.

THE YEAR AND ITS LESSONS.

AS the last month of the year opens upon us the tendency of one's mind is naturally retrospective; and as each month passes in review, many matters recur to memory which one would like to have told long ago to the readers of the Journal, but could not for lack of time, for the whole year has been a busy one; and I have no doubt that if some of the pages of my horticultural diary were transcribed literally into the Journal many youthful aspirants would be much surprised to find how numerous and varied are the matters apart from actual gardening with which one has to deal in the management of a new place. On the first page of that diary I read, "The new year opens cheerfully with a warm bright day;" and this hopeful and promising aspect which Nature wore when the year was young was prophetic of the prosperity which has crowned its span of time. Some hopes remain unrealised, and some expectations unfulfilled; the sunshine has not been unchequered by clouds, but there has been no settled gloom; brightness has predominated, so that on the whole the year has been a prosperous and in some respects a remarkable one.

A winter of extraordinary mildness was followed by some severe late frosts which were fatal to fruit prospects in many districts. A drought early and long continued, an autumn of genial showers, and weather so mild that beds of Calceolarias, and even Heliotropes, were perfectly full of fine fresh blossom in the last week of October, and another winter of mild open weather, comprise the chief weather-characteristics. The mild winter caused many hardy plants to become so tender that the cold spring proved fatal to them, teaching us to be on our guard, and ready with such means of protection as can be had so as to counteract the baneful effects of such unseasonable weather as much as possible. Some spring-flowering plants, notably Nemophila, are extremely liable to suffer from such weather, especially when planted on a flat surface. High-raised beds with a steeply-sloping surface, soil of a dry, gritty, open texture, and thin planting is the best remedy. Spring-flowering plants, especially annuals, should never be crowded together in winter; each plant should stand tolerably clear from its neighbour, so as to be fully exposed to the play of light and air; then in spring the sturdy plants, growing freely, quickly blend into a perfect mass without a scar or blemish.

Among vegetables, Peas are more generally regarded than any other as the prime esculent of summer. The first sowings were made on February 3rd of Dillistone's Early and Laxton's Alpha, from which the first gatherings were made on the 30th of May, the first-named kind affording double the quantity of plump pods that day to what could be found upon Alpha. A fortnightly sowing followed the first one until the middle of June, when the regular cropping ceased. An abundant and constant supply of nice young Peas was forthcoming from the first gathering until the early part of October, or nearly five

months. A speculative sowing on July 1st of Laxton's Omega, William the First, and Carter's G. F. Wilson proved most interesting and useful. William the First may be an excellent early variety, but it is comparatively useless so late in the season. The seed vegetated with surprising rapidity; the haulm was decaying and the crop fully matured long before that of the other two kinds was fit for table. Omega is a good kind, yielding a fair crop of large pods well filled with very green Peas, but, in my opinion, it was much inferior to G. F. Wilson; this is worthy of note, because especial merit is claimed for Omega as a late Pea. Growing side by side with it, and under precisely the same conditions, G. F. Wilson was more robust, much less affected with mildew—of which, in fact, it had very little—and yielding a crop which was greatly superior both in size and quantity. The great value of such late-sown Peas is seen by a reference to the kitchen book, which shows that good dishes of Peas were sent to table on October the 11th, 15th, 19th, and 22nd. Depend upon it, good late Peas are quite as valuable as early ones. Reverting to the general Pea crop, it should be stated that the June sowings were all of Veitch's Perfection, which if sown in the second or third week of that month come into use in August, and continue good throughout September. Knowing this, one takes especial care to make these sowings quite three times as extensive as the ordinary ones. For example, if two rows were required in May, six would be the correct proportion for June.

Turning now to Kidney Beans, sowing a row or two thickly and transplanting was adopted throughout the season; it is an excellent plan, by which a supply of plants can always easily be had to follow or put between the rows of any other crop. For forcing, and for early or late crops, a new kind called Osborn's New Early Forcing proves a real acquisition. The growth is remarkably dwarf and compact, the crop is abundant and fit for use much sooner than other kinds. It is quite the best for pot culture, the compact dwarf growth requiring no supports, and occupying very little space. Among climbing Beans special attention should be directed to Carter's Mont d'Or Butter Bean, a delicious vegetable, greatly superior in quality to all other climbing Beans. The old Scarlet Runner is sometimes disliked, and there are establishments where Dwarf Kidney Beans only are cultivated for the dining-room. While strongly recommending this new introduction to all, I would specially beg those having charge of gardens where this feeling prevails to grow some of this fine new Bean, as it must become a general favourite.

Of Onions we have a new Neapolitan white-skinned variety called Queen, which proves most valuable for early spring or autumn sowing. It is of remarkably quick growth, being fit for use much earlier than any other kind that has been grown with it. Sowings of it made in July and August form a capital succession to the summer Onions.

Much attention has been given to salading of all kinds, particularly in providing a winter supply, but the un-

usually mild autumn almost upset all one's plans. A fine large batch of Cos Lettuce, sown July 16th, were in excellent condition—that is to say, they were fit to use when transplanted to the frames October 5th; but the whole of them ran to seed, and have been replaced with Stanstead Park Cabbage Lettuce, which under ordinary circumstances would not have been fit for use till spring. Some "All the Year Round" Cabbage Lettuce put in frames at the same time as the Cos are still good, so that in future one will be inclined to depend more upon Cabbage Lettuce for winter salads. Many useful crops of Cabbage Lettuce were obtained in summer by sowing single rows thinly between Celery, dwarf Peas, or upon any bare narrow spaces, such stolen crops proving especially valuable for kitchen purposes; for when *Monsieur le Chef* demands "much *laitue*" the order must be interpreted largely. The general crop of Celery is this season confined to Leicester Red, which is in my opinion superior to all others. Certainly the immense bulk of the solid plants place it very high for stewing and other culinary purposes, and the delicacy and crisp tenderness of the hearts is all that can be wished.

Among Melons grown in ordinary garden boxes upon dung beds Dr. Hogg was decidedly best. It was most prolific, each successive crop yielding an abundant supply of handsome medium-sized fruit of an average weight of 2 to 3 lbs., and of excellent flavour. Little Heath Melon did not answer my expectations. It certainly swells to an enormous size, but it was quite second-rate in flavour.

A few plants of the later introductions among Cucumbers, such as Blue Gown and Marquis of Lorne, were grown, the fruit making a fine display; but for all practical purposes the preference must still be given to Telegraph and Masters' Prolific.

Tomatoes were grown entirely in pots in a pit; they were kept by pinching to the form of compact bushes, and sustained in full vigour by a free use of liquid manure. The crops were abundant and fine. Hepper's Goliath was very fine, the fruit being much larger than any other kind, and remarkably handsome. Hathaway's Excelsior, too, was grown in quantity; it is a prolific sort, and the profusion of round and perfectly smooth fruit which it yields renders it very desirable, especially for small gardens. A crop of ripe Tomatoes cannot always be obtained from plants grown entirely in the open air. In a cold wet summer dark blotches and specks appear upon the fruit, which then soon becomes rotten; and therefore, while some plants are usually planted in the open garden, care is taken to provide a regular supply from pot plants. There are very few gardens where at least some pot plants might not always be managed by plunging the pots in the open air, and removing a few under glass occasionally—in fact, I am by no means sure that this is not the best plant for general adoption, as the plants answer equally well in the open air as under glass in the early summer months, and require much less care and attention.

These brief notes, be it remembered, refer to a climate about fifty miles south of London, and so are not closely applicable to the northern counties, from whence it would be interesting to see similar communications.—EDWARD LUCKENRST.

GLADIOLUS CULTURE.

The following notes are by Mr. Sampson, of the Preston Road Nurseries, Yeovil, whose varieties have attained considerable distinction:—

When to Plant.—The best time to plant is in the month of March, commencing quite early in the month if the weather be at all favourable. In order to secure an effective display, and at the same time afford the plants an opportunity of fully developing the beauty of their flowers, they should be planted in beds, which should be formed in rows not less than 18 inches apart, with a clear space of a foot between each bulb in the line. Some cultivators have recommended potting the bulbs and growing them on for a time before transplanting them in the open ground, but concurrent testimony proves that no advantage is derived from it. Some have recommended planting in January and February, but it is best done in March; but if a few late flowers are required, the planting of some of the bulbs may be deferred till the middle of April.

The Preparation of the Soil.—A deep loam best suits the Gladiolus, and the bed in which the roots are to be planted should be previously well trenched to the depth of 18 inches, digging-in at the same time a good dressing of well-decomposed manure. Thoroughly rotten vegetable refuse and wood ashes, as well as some crushed bones, greatly assist the de-

velopment of the plants. As soon as the growth begins to appear through the soil I put on the surface of the beds a thin dressing of condensed night soil, increasing the quantity as the plants mature their growth, and the height of summer is reached.

Summer Treatment.—This includes keeping the beds clear of weeds, and occasionally stirring the surface soil. When the flower stems reach a foot in height, each should be tied to a stake to support it and preserve it from harm through winds which are apt to twist the stems off close to the bulbs. In dry weather frequent sprinklings overhead and good surface-waterings will be necessary, but the dressing of night soil will do much to keep the bed moist and cool. In tying-out to the stakes be careful not to tie the stem too tightly, sufficient space should be allowed to admit of a free upward growth.

Taking-up and Storing the Bulbs.—The taking-up and storing of the bulbs is a matter of considerable importance, and the removal of the bulbs from the beds should not be deferred till the stalks die-down completely. It is best to lift them when the leaves turn yellow, and cut away the stems to within 6 inches of the bulbs, and these to be placed in a cool airy place to dry. They should then be put in drawers, baskets, or bags in a moderately cool and dry place, each variety being kept separate and distinct. Frost must be guarded against; a severe frost will cause many of the bulbs to rot. In such a place the bulbs can remain till planting-time comes round again.

Raising Seedlings.—Seed saved from the best varieties may be sown early in April, either in pans or shallow boxes, or in nicely-prepared soil in the open ground. When the plants begin to show themselves they should be encouraged with a little weak manure water occasionally administered. When large enough to be transplanted, they should be planted-out in beds about 4 inches apart each way in some good light soil, and encouraged to make all the growth possible during the season. A good number of the bulbs will flower the following summer.

ERYTHRINA CRISTA-GALLI AND ERYTHRINA HERBACEA.

I AM pleased to see Mr. Giles call attention to this fine old plant, *Crista-galli*, which, as he justly observes, is seldom met with now-a-days, and but rarely as it used to be in times long since gone by, for in the early years of the first gardening periodical, "The Magazine," it was thought a great feat to flower it three times in a year—i.e., the same plant, and some very fast ones asserted it was possible to do more than this; but assuming the ordinary cultivator to be satisfied with doing so once, and giving it a fair chance to succeed, few plants repay the trouble better. Yet, somehow, it is not often met with in a good condition, and as reports of ill success are often as interesting as the contrary, I confess not having been at all so lucky with it as I expected; but my object has mostly been to have it do well as an outdoor plant, and at various times the last twenty years have planted out a good many plants with only indifferent success, and losing a good many of them, owing, perhaps, to the aversion I have to see anything covered-up in winter, which is the time when the appearance of the grounds is of most importance; and of those who did survive, their flowering fell below what I expected of them. Nevertheless, treated something like *Dahlia*s, I have seen them very fine, and we all know how much better the foliage looks outdoors than inside, where red spider seizes them as its legitimate prey. The best plants, I think, I ever remember seeing under glass were placed on stands raised level with a large basin of water, in which they were placed, just like what we sometimes see done with Pitcher-plants or aquatics. The vapour from the water kept the red spider more at bay than any other mode of treatment I have ever seen them subjected to; still it existed. But it is needless enlarging on this head, but I would like to know if anyone has discovered any peculiarity in the soil in which this plant seems more to delight in than others, and if so, what is it?

Furthermore, I would ask if any of your readers have the smaller species of this genus, *E. herbacea*, as it used to be called nearly half a century ago, a species resembling the other in every respect, except being 2 feet high? I cannot call to memory having ever seen it since the time when the agitation for the first Reform Bill was going on, when it was a favourite, and deservedly so, and widely distinct from

E. Crista-galli; while I hardly think the one called *E. laurifolia* sufficiently distinct to be entitled to a botanical place, but only to be such a sport as most seedlings are now and then liable to run into. I may further add, as supplementing Mr. Giles's remarks on the cultivation of this plant, that it is most easily propagated from seed; it may also be struck from cuttings, but to endeavour to do so from the old ripened stems, cut into lengths like what is done with Vines, was a puzzling matter to the last generation of gardeners. I content myself with seeds.—J. ROBSON.

EVERGREEN HEDGES.

It is sometimes desirable to form a hedge to separate two portions of a garden or kept grounds, or to serve as a screen by which one portion may be completely shut-out of view from the other. For this purpose it is evident that such a hedge or partition should be made with evergreen plants compact and neat in habit, and permitting free use of the knife or shears, both for improving the appearance of the hedge and for keeping it within the required limits of height and width. The formation of hedges, directions for planting them, the materials suitable for the purpose, and their after-treatment, have been discussed in these pages before, although a long time has since elapsed, but not so exhaustively, if I remember aright, as to include every case that may arise. A revival of the subject, therefore, will not be deemed inopportune or unnecessary, especially as many plants of easy propagation have of late come under notice as being suitable subjects for the purpose under discussion, and which by this time have probably been to greater or less extent applied to it. To elicit the experience so far as yet ascertained of those readers of THE JOURNAL OF HORTICULTURE who will kindly furnish it, of any evergreen, whether coniferous or otherwise, that they have used, or seen used, to form neat and picturesque hedges or partitions in kept grounds, is the object of the present article.

Evergreen hedges are common enough, but how few and often indifferent are the materials of which they are formed. Excepting the Holly and Yew, which require a long time to form really serviceable and impervious screens, we rarely meet with evergreen hedges formed with any other plant than the common Laurel, and occasionally the Portugal. The common *Arbor-Vitæ* (*Thuja occidentalis*), is sometimes used, but by no means so generally as it might and ought to be. Anyone who has seen the magnificent hedges of *Arbor-Vitæ*, Holly, and Yew at Knap Hill or Piltown cannot fail to have admired them.

With the variety of plants suitable for the purpose now procurable, and the evident superiority of some of them over the few, excepting the Holly, that have hitherto been employed, it is quite clear some improvement in this direction may be effected, for the question is not one of boundary fences or of defensive hedges, a purpose for which the Hawthorn with its dense plexus is still unsurpassed in this country. The chief objections against the common Laurel are—it takes up too much room, its foliage although cheerful is too large and sparse, its leaves are shed at a season when of all times it is most desirable that the garden should be as free from litter as possible. Its rapidity of growth is counterbalanced by equally rapid decay, especially at bottom, causing unsightly gaps, which necessitate a cutting-down of part or the whole plant or hedge to induce new growth from the ground. The Yew forms a massive and dense screen of indefinite permanence, admirably suited for nursery purposes, but too sombre for the garden unless strongly contrasted with its surroundings. The *Arbor-Vitæ* (*Thuja occidentalis*), is excellent, but becomes discoloured in winter. Undoubtedly the Holly is one of the best of plants for forming a picturesque hedge, and the more so if budded or grafted the third or fourth year after being planted with the many pretty variegated forms in cultivation. Its slow growth is an obstacle to the ease I am now supposing, to form a screen that shall be at once effective, or become so within a short period.

We must, therefore, turn to the Conifers for the material we seek. *Thuja gigantea* (sometimes known as *T. Lobbi*), would be superior to *T. occidentalis* from its verdant appearance at all seasons. *Cupressus Lawsoniana*, now one of the commonest, but at the same time one of the most elegant as well as most hardy of Conifers, appears to be well adapted for this purpose. A nurseryman of great experience stated to me that it was too thin; further evidence is much wanted. *Thuja*

plicata is a compact and erect plant, but less cheerful than *T. gigantea*. *Biota orientalis* on soils not too light forms an erect and dense plant. If this has been tried (and it is worth a trial), it is necessary to know if cutting causes the plant to remain thick at bottom, where it generally becomes thin when allowed to grow without check. *Juniperus chinensis* flourishes on almost any soil and bears close cutting.

The above-named Conifers are suggested for screens and hedges of any height up to 12 or even 15 feet. If a much lower height is all that is required, as 5 feet, there are several useful and hardy evergreen shrubs that might safely be tried. For light foliage, *Buxus balearica* and some of the forms of *B. sempervirens*; for dark, *Phillyrea latifolia* and *P. boxifolia*, *Euonymus japonicus* (green variety); the others cannot be depended upon in very severe winters. Intermediate is *Viburnum Tinus* and *Ligustrum ovalifolium* (Oval-leaved Privet), a stronger species than the common Privet and evergreen, which the common kind can hardly be considered. A picturesque hedge could be formed with a judicious intermixture of all these, and they are all patient of the shears and become dense after being clipped.—A. H. KENT.

LIFTING AND ROOT-PRUNING FRUIT TREES.

No. 7.

WE have trees of Peaches, Nectarines, Apricots, and Plums which in three years after planting will have grown, according to the soil and treatment, much and barren, moderately and fruiting or promising to bear, and little having small weak growths which promise greatly for fruit, usually ending in mere blossom. There is a poverty which ends in a sheet of bloom but no fruit, and there is growth which promises nothing beyond it. The one is as unprofitable as the other, and the remedy is the same for both, but applied in a different manner. For the stunted subject the proper remedy is to lift with every particle of root, and plant in richer soil, and only moderately firm, the tree being young. It will slowly but surely become invigorated. The vigorous subject will, say if three years planted, require to have a trench taken out 3 feet from the stem all round and as deeply as the roots, cutting off every root at 2 feet 6 inches from the stem, or, if very vigorous and if against a wall, 3 feet; so for a pyramid or bush, 2 feet for a very vigorous tree, and 1 foot 6 inches for a vigorous one. Removing the loose soil down to the roots, lift with the ball as entire as practicable; put in some soil where the roots were and tread or ram hard, raising so that the setting-on of the roots will, when the tree is placed in position, be just level with the surrounding ground. Fill-in with soil, adding a fourth of manure to it, and tread hard. If dry give a good watering, forming the soil into a dish so that the lifted part may receive the water; and when it has settled in level mulch for 3 feet round with only partially decayed manure, the roots to be covered about 3 inches deep with soil. The best time to lift is when the leaves begin to fall.

Trees which are vigorous and tending to fruitfulness are best left alone. To lift them would only be to make them fruit more and grow less, which is hardly desirable until they have covered their allotted space or are as large as desired.

Trees which are large and unfruitful from, it may be, age induced by poverty of soil or a system of treatment which aims at the restraining of the vigour and inducing of fruitfulness, weak and small parts though numerous are produced, resulting in crowding masses of bloom being produced, there being twenty or more of bloom to one of wood buds, the branches long and bare of bearing wood—the trees being vigorous in some parts only, and there mildew appears; whilst dying branches with an ugly tree and small fruit—dry and mealy instead of large and juicy—usually show poverty to be the cause of such indifferent results. Many in such a case, and especially a young hand, consider resuscitation hopeless, and so root out the trees, which may cover a space which will require seven years for young trees to gain, and that time to give as much fruit as the old renovated will in one year. Many a man has been turned out of a good situation for no other reason than he has shown himself of too enterprising a spirit for the old-fashioned groove in which his employer's ideas have been running. Want of "digging about and dunging" weakly fruit trees, especially Peaches, Nectarines, and sometimes Apricots and Plums, which, though twenty or more years planted, are not old, but the cropping and treatment to which they have been subjected make them barren, has led to much of their failure in many places where they formerly

succeeded. Anyone, therefore, who may have fruit trees large and weak in growth, productive of abundant bloom and spurs in fruit, and what there is poor, will be doing themselves and the trees a service by at once setting about an alteration. It does not matter how old they are and weak, the change for the better will be all the more marked after the operation's beneficial results appear.

Ascertaining by actual measurement the square feet covered by the branches sideways and high, take one-third those as the distance from the stem to open-out a trench, and go down beyond the depth of all roots. This done, all roots being cut off—if the object be to lift them, as we will presume it is, the trees being in the worst possible condition as regards weak old bare wood, and dying parts, and probably low—remove all soil to the roots with a fork, and freeing them of the loose soil without injury to the fibres, and then working underneath (the roots from the trench to the stem of the tree having been loosened from the wall), may be lifted with the soil adhering to the roots, and having some soil placed under where it was, and so much as will bring the setting-on of its roots level with the surrounding surface, which soil should be turfy loam with a fourth of cow or rotted manure intermixed, or, if the loam be not turfy, one-third manure to be added to it; and whatever the soil added be, it should be fresh, thoroughly incorporated with the dung, and beneath the tree be rammed as hard as a much-frequented road. The tree, returned to its position, is to have the soil worked-in between the roots where any soil has fallen from them, and should be fresh-manured soil, and trod firmly and the full extent of the space opened out. After planting a good watering to be given, and finally mulched with littersy manure. The branches ought to be secured to the wall to prevent injury from winds, or if in the open, as may happen with Plums, staking them securely. Avoid covering the roots near the stem deeply, and not more anywhere than 6 inches—better if only 3 inches, whilst close to the stem they need only be just covered. We leave the subjects until February, for the lifting should be performed so soon as the first leaves have fallen and the others likely in a short time to follow; and then set about removing the weak, old, and long bare shoots or branches from the Peaches and Nectarines, disposing the main branches at a foot distance apart, and, if they are not present, seek by cutting back to originate them from as low down as possible, and arrange to have the bearing wood at a foot distance apart along them. It may be we cut away half the tree, but the parts only that disappoint if left, as they have done before, and complete by properly securing to the wall. We have to be careful to water during any dry weather after the middle of May up to the same time in August, and use the garden engine frequently to distribute water over the foliage, which is good for keeping the soil moist along the wall, it very often being dry as a desert, and for cleansing the trees of insects, to say nothing of its affording means of moisture being given off by the wall to the benefit of the trees for a long time afterwards, thereby conducing to their health and vigour. In watering, it is no use to water beyond the radius of the trench; and as the roots will be all there give enough to soak it through, for dribbles may do to prolong life and cause necessity for frequent repetition, but are practically valueless for growth. In autumn we may have a tree that has ripened off a fair crop of fine fruit (considering the lifting), and a promise of an abundant one next season. But we must not rest content, for contentment means a return in no great length of time to an enfeebled tree and discontent from the imperfections of the growths and fruits. We must follow up what is begun, beginning where leaving off; and just outside the trench taken out the year before take out another, and 2 feet wide and as deeply as the roots, and joining the other, which will be found filled with roots, and it may be seeking, and perhaps attained, access to the old soil. This trench to be filled-in as the first with fresh and manured soil, and the space from it to the stem mulched with littersy manure. Each year we add a width of fresh ground for the trees until the whole is completed, and then manure by the surface.

Plums and Apricots, bearing for the main part on spurs, are not to have the branches thinned, but the spurs may be shortened and thinned in February, and in other respects treated the same as the Peaches, only for them the soil need not be made so firm. The trees not being bad in branches, but producing poor fruit, or none, but with abundant bloom, and having many branches or a multiplicity of spurs, lifting will be unnecessary, as it is evident all that is wanted is more

vigour. This may be accomplished in two ways: First, by manuring at the surface, which is of little use if the border be heavily cropped with vegetables, the trees being made secondary to them, and thinning-out the old, bare, and weak wood of Peaches, and the spurs and even branches, if they be crowded, of Apricots and Plums. This enriching of the soil without disturbing the border much should begin at the stem, for the Plum stock is never short of ramifications there; therefore loosen and remove the soil there and add fresh soil enriched with manure, manuring the border and just pointing-in. The border, if the soil be light, should be firmed, and it is likely the roots will be attracted upward, as they will certainly be multiplied and extended from the stem outward by the manure and fresh soil, to which we may attribute any benefit that may arise. The treatment must be followed up each year, and may effect a change for the better, as each year the cultivation is continued, instead of that niggardly policy which expends nothing upon the trees, and those that are so unfortunate as attend their pruning, &c., but grumbling over disappointments of which they are the originators. Secondly, by adopting a more radical change in the conditions of the trees' roots, or the means from which they derive support for and fashion the head. At the stem commence operations by removing the soil with a fork, and clear away the soil down to the roots, and work outward, continuing the fork until it is safe from the depth of the roots to employ a spade, and clearing all away either as far as the roots extend, or at least half the extent of root-surface or the extent of branches, and then commence lifting the roots if they are deeper than a foot from the surface, and by removing the soil between them they may be raised tolerably easy, and as each root is raised pack under fresh and manured soil, bringing the roots as near 6 inches of the surface as can be done without damaging them, and consolidate the soil under, around, and over them; and as those near the stem may not be raised, remove the soil between them and replace by fresh, and make firm, completing by a mulching of littersy manure after giving a good watering if the weather be dry and the trees are not devoid of leaves. If the roots are near the surface, the surface being cleared of the soil down to the roots, remove from between them and under them as much as possible, and replace it by fresh compost and ram firmly, taking care that there are no vacuums, but all alike made solid under, between, and over the roots, not covering deeper than 6 inches, and at the stem not more than 3 inches, finishing with a firm surface and a mulching not more than 3 inches thick of littersy manure. The thinning of the branches, shortening of long bare ones, thinning the spurs as before stated, and otherwise attending to watering, syringing, and seeking a good and healthful growth, and afterwards manuring annually more or less as the growth and crop prompt, giving it liberally if they grow but weakly and fruit heavily, and less proportionately as they make strong growths and tend to barrenness. A return to barrenness from overcropping, overrated growth, and overproduction of bloom buds without corresponding wood ones, is as much to be shunned as gross and sappy growths. Thinning the fruiting parts will remove the first evil, whilst over-vigour is only to be subdued by curtailing the feeding medium by operating upon the roots in a manner ensuring of slow growth, close-jointed, well-ripened wood. Old trees, however, rarely need any haggling at their roots, but, as a rule, need its opposite, amply repaying any "dugging" the cultivator may bestow. Many old trees—not from age, but hard usage and ill fare—now enabled only to give a return for it in blossom, would do so in fine and abundant fruit were they kindly treated, their wants for fruit-production suitably considered and given.—G. ABBEY.

CHRYSANTHEMUMS.

I wish to draw attention to the magnificent display of Chrysanthemums to be seen at Berkswell Hall, the seat of T. Walker, Esq., near Coventry. Happening to call there a few days ago I was very much struck with the display in the fine conservatory of that flower when cultivated as Mr. Downe the gardener there does, both as regards size of flower, form, and quantity on each plant, many both of large and small-flowering sorts having from 100 to 150 finely-developed flowers open on a plant at one time, of all the most approved varieties. The plants are well trained, but not stiffly, many of them as standards on stems from 2 feet to 5 feet high, and with heads from 4 feet to 6 feet through, which has a grand effect among a host of other autumn-flowering plants. It never has been

my lot to witness such a fine lot of Chrysanthemums at any of our autumn shows either in London or the provinces, all are so healthy, and their large green leaves far below the rim of their pots, which are not very large for the size of the plants.

Mr. Downs has been in T. Walker, Esq.'s, family for a quarter of a century as head gardener. He does not exhibit.

The names of some of the most prominent varieties I noticed were Queen of England, Empress of India, Prince of Wales, Prince Alfred, Princess Beatrice, Bovela, Venus, Mary Morgan, John Salter, Lady Talford, Lady Slade, Jardin des Plantes, Bronze Jardin, Guernsey Nugget, Mrs. G. Rundell, and Lady Harding.—J. G. T.

SEA-KALE AND HORSE RADISH CULTURE.

SOME few weeks ago a correspondent in your Journal gave a few excellent hints about Sea-kale. I have practised a similar mode of cultivation for a few years with good results. I think it is folly to have a great space of ground planted with Sea-kale 3 or 4 feet between the rows for forcing on the ground, when double the quantity can be grown on the same space to be forced indoors.

For these last two years I have practised the same annual routine of culture on Horseradish, and find it succeed perfectly. As soon as the leaves are off the plants in October or November we take out a trench at one end of the bed, as is usual in ordinary trenching, and by means of fork and spade turn over the whole of the bed down to the clay, carefully picking out the roots as whole as possible, and manuring as the process goes on. The bed is then made level ready for replanting. The roots are then looked over; all that is fit for kitchen use are dressed and laid aside for that purpose, and all the long thin roots of the thickness of a quill stripped of all side roots are laid in bundles for replanting. With a long dibber (or an ordinary Dahlia stick will do), make holes 18 inches or 2 feet deep, 6 inches apart, and 1 foot between the rows. Into each of these holes we drop one of these long roots, and then fill the hole up with fine dry soil from under the potting bench. These make nice useable roots the first season, but of course if they were left for two seasons they would be much better. This annual planting has many advantages. In the first place, a very small bed will grow sufficient for the supply of most families. This struck me very forcibly on entering a very old kitchen garden a few months ago, where was to be seen a bed of Horseradish some 15 yards long by 5 or 6 wide, which apparently had not been disturbed, except in digging roots up for use, for fifteen or twenty years. In contrast to this we have dug from a bed 15 feet by 8 sufficient good roots to supply an ordinary family for twelve months. In the second place, the ground is being cultivated. It is annually improving; and the plants being in rows, it can be kept clean by means of hoeing, the same as any other crops, instead of becoming a nest of weeds, as is too often the case; for it is no uncommon thing to find weeds seeding in the Horseradish bed at places where they would not be tolerated anywhere else. In the third place, there is no such thing as shouldering a pick when grim John Frost resists the spade in the gloomy winter months. The roots are laid regular in layers one above another with soil between, covered over with soil. A little litter keeps out frost and mice. It is always accessible without the aid of either pick or spade. Would anyone who is acquainted with the system practised by those who grow it for the market favour us with an outline of their mode of producing the fine clean roots which they send to market?—R. INGLIS.

CHESTNUT TIMBER.

THERE is evidently a confusion of ideas in the extract from the "Household Guide," given at page 346.

The timber and the fruit of the Spanish Chestnut are as distinct as possible from that of the Horse Chestnut. The wood of the latter is white and soft; that of the former so much the colour and character of Oak as to be not easily distinguishable from it. I have more than once heard a timber merchant say he had sold Spanish Chestnut for Oak. It is generally considered a durable and valuable wood. My experience certainly does not agree with that of "A CORRESPONDENT," page 425. I have now some boards out of the butt of a fine Spanish Chestnut which had not a flaw or crack about it. These boards were selected for their superior quality for carving purposes.

There have been some articles lately in the Journal on the comparative merits of Strawberries. Some kinds are represented as worthless grown in one place, and everything to be wished grown in another. What "A CORRESPONDENT" says of the Spanish Chestnut wood I could say very much of some Oak, fallen and cut up where I am writing. There is no doubt that soil and situation materially affects the growth and quality of timber; and under certain conditions of situation and growth trees become "shaken" or "rifted;" the seams may, and do often, become completely obliterated, and the timber proves what "A CORRESPONDENT" describes the Chestnut. The old story of the chameleon will apply.—V.

ARRANGING FLOWERS.

ONE can scarcely be engaged in any pursuit more interesting or that requires more study than that of arranging flowers; indeed it is nothing less than an art that few have thoroughly mastered; many have laboured to attain it without any very great success. It seems almost, I think, like many other branches of art—many will try, but few will attain the height to which they aim. We may with perseverance attain much—with strict attention to natural laws and determined patience may almost mount the pinnacle of perfection; but how slow and often discouraging to one that is not really talented for the particular object that is wished to excel in. One has often more than enough at times to dishearten when, just as we think we at last have dropped in the right path to reach the top, alas! to our mortification only to find another with that particular vein of taste to drop in and deprive us of what we have been labouring for with great hopes, and I may say certainly of obtaining. Well, there is no help for it. It is only vexing to think those parties have only just made the fresh attempt, and then that to bring them to the height we have worked so long to obtain. What a revolution has of late years been wrought in the arrangement of flowers by prizes offered at the various horticultural societies! We all rejoice of this: where is the one that would like to drop back to the middle ages of dark heavy formality? Gratified though we are by natural and becoming changes with the professional classes, I must drop a step lower to find the height of my pleasure in the great change worked and working in the ranks of the sinew of old England, the working class. They always did love flowers; they are now, thanks to the many cottagers' societies, coming to think them a part of that stupendous whole that make up a happy existence. Much, very much, is left to be done by the above societies to improve the arrangement of flowers by their exhibitions.

Having been for a few years rather out of the line of attending any cottagers' exhibition in England, I was wont to tell those that had sprung up around me how much better they did things, not in France, but in England. Judge of my surprise when attending a show or two in this neighbourhood to find the arrangement of flowers still in all gaudy colours, still that heavy, lifeless, and unnatural cramming all that hand can lay hold of—all this with the hope that the more staring and clumsy the mass the greater the chance of a prize. My experience convinces me that the most direct way to assist the better arrangement of flowers, is for ladies and professionals to arrange some specimens with precisely the same variety of flowers as the cottager; and (though example is better than precept), I believe a few words in criticising those shown, and to explain what would be an improvement, are equally calculated to foster a better taste in the exhibitors.

I had in my mind when I began this note two instances of the effect of taste in arrangement of flowers, though they were both seen in cottages, humble but clean and happy I'll vow. Those two specimens have very often presented themselves to my mind, especially when arranging stands, and I believe much to my edification. The first a large pie-dish filled well up to a mound with nice green moss. What need we better for the foundation for a beautiful graceful arrangement? As it was, little were really wanted. Well, in this moss were studded in as thick as possible very fair Asters and Dahlias. Here the arrangement ended. We could be but pleased even to see this; and as we always do, we showed our pleasure by congratulating the hand that did it, &c. It was a well-meant beginning, and we suggested fewer flowers of more distinct colours with that little addition of gracefully-placed Fern leaves, Grasses, and a few small flowers to stand out and from the more heavy Dahlias and Asters which are best as a groundwork.

We should have passed this, no doubt, with no more than a pleasant thought; but it so happened a few hours after to find ourselves admiring the arrangement of a stand of flowers in another cottager's abode of a very different character. Its simplicity, its gracefulness struck us how erroneous it is to think a mass of showy flowers are necessary to form a pleasing group. In this stand it was not the material but the method that made it so pleasing. It contained but little from the garden but just a Rose bud or two, Mignonette, Sweet Pea, and a Geranium or two; the rest were from everybody's garden—the hedge. This the arranger had dealt unsparingly with, and right well were they arranged with the garden flowers. I still see the beautiful hues of the Bramble leaves, the Grasses and Ferns with a few wild flowers and berries, of which the wild Rose's haws and the pink Comfrey stood out most tellingly. What a difference one had presented in these two arrangements—one flat and heavy, the other light and springy. The one induced but a glance, and the eye seemed to require no more; the other, the more one viewed it the more one wished to do so. But here is the point I wish to conclude with: The first party had never seen an exhibition of arranged flowers, there were no cottagers' societies in her neighbourhood; the other had seen and exhibited in one. Never was I so convinced of the benefits those societies do, when well conducted, than in the last few years in Carmarthenshire.—JOHN TAYLOR, *Hardwicke Grange.*

SOME OF THE VEGETABLE PRODUCTS OF CEYLON.—No. 4.

MAIZE OR INDIAN CORN.—This most valuable grain thrives well in the greater portion of the island. As Mr. Sharpe most truly remarks, that considering how well Indian Corn thrives in Ceylon generally, and how wholesome and nutritious a grain it is, ranking unquestionably among the first of cereals, the extension of the cultivation is every way to be desired. Its growth might be indefinitely extended, while the value of the produce, as an article of diet substituted for or alternating with Rice, cannot be over-estimated. In some of the elevated regions of the central province it grows luxuriantly, as it does in the lowlands, so that it would seem adapted to every variation of climate experienced in the island. As a vegetable the young cobs when boiled are excellent, and the fried corn is by no means to be despised. Cakes prepared from the flour are very palatable and wholesome. In North America, from the torrid to the temperate zone, this cereal is a most important article of diet.

The extension of the cultivation of Maize and the improvement of the Grasses of the colony would, specially through the agency of small Chinese and other farmers and stock-raisers, do much to improve the existing cattle, sheep, and poultry; and for such produce the town and port of Galle in the southern province of the island, and of Colombo in the western province, the places of call for so many large steamers with very numerous passengers for continental India, China, and Australia, &c., would present admirable markets for its disposal, besides the large demand within the colony.

VANILLA.—Much attention is being paid by my friend the able Director of the Royal Botanical Gardens in Ceylon (Dr. Thwaites), to the cultivation of this valuable plant, and different modes of growing it are being tried. Dr. Thwaites thinks the best system to follow is to train the plants upon strong trellises, to which it firmly attaches itself by means of its aerial roots, as the plants appear to be much more manageable under this treatment, and it thrives quite as well upon the trellises as when it is growing upon the trunks of living trees. Much care is being bestowed upon the curing of the Vanilla pods, so as to prepare them in the style required for the European markets, and is adapted in the Isle of Réunion. Vanilla is indigenous to Nicaragua in Central America. The pods when they become yellow are placed in heaps for a few days to ferment, afterwards flattened by the hand, and carefully rubbed with cocconut oil, and then packed in dry Mountain leaves, so as to confine their powerful aromatic odour. In a note I have before me from a competent authority, to whom I sent a sample of Ceylon Vanilla to be reported upon, it is stated that the quality is considered very good, although it wanted more colour. To make it obtain the highest market price, the pods ought to be large and quite black. The best pods of the sample were considered to be worth 70s. per lb.; the lowest 50s. per lb. If sent for the London markets, it is recommended that it should be packed in tinfoil and done up

in half-pound packets, and then enclosed in tins containing 6 or 7 lbs. each.

Dr. Thwaites is of opinion, as Vanilla is so easy of cultivation in parts of Ceylon, that if only a comparatively small price is obtained for it in Europe such would cover the cost of labour.—E. RAWDON POWER, *Ceylon Civil Service (Retired), Tenby, South Wales.*

NEW HORTICULTURAL CLUB.

In answer to numerous inquiries addressed to me privately, and which I may take as an indication that others would like the same information which I have given to them, will you kindly permit me to say that the only reason why more active steps have not been taken in bringing the Club more prominently before the general body of horticulturists, is that we have so far been completely baffled in our attempt to find suitable accommodation, and that we are desirous, before issuing any further statement, to be able to say that we can offer our friends the full benefit of membership? The very cordial manner in which the proposition has been welcomed by representative men in the various branches of horticulture, leads the Committee to believe that when we have completed our arrangements we shall be enabled to establish the Club on a satisfactory and permanent basis.—THE SECRETARY.

GARDENING IN INDIA.

ENGLISHMEN introduce their recreations wherever they migrate to. The first morning after my arrival at Calcutta I met an old friend at a cricket match, though the temperature was so high that it was played at sunrise. So have they overcome difficulties of climate and cultivate European garden plants.

Dr. Spry, the indefatigable Secretary of the Agricultural Society, published at the close of 1841, "Suggestions for Extending the Cultivation and Introduction of Useful and Ornamental Plants, for the Improvement of the Agricultural and Commercial Resources of India." It is full of highly interesting and important information.

Anyone placed amid plants and vegetables exhibited annually at the Agricultural Society's Show, would not guess that the vegetables there collected were the produce of Calcutta gardens, cultivated by native mallees.

There are Celery, Cabbages (Red, Drumhead, and Savoy), Spinach, Turnips, French Beans, Endive, Carrots, Lettuce, Red Beet, Artichokes, Potatoes, Tomatoes, Peas, Cauliflowers, Watercresses, &c., that would not shame an English gardener at Fulham.

Now that railways have facilitated journeying to northern India, the neighbourhood of the Himalaya Mountains is more than ever a region of resort during the hot season. There, with air cooled by the snows eternally crowning the highest elevations of the world, one mountain rising to 29,000 feet, the climate is peculiarly suited to the culture of European fruits and vegetables. Bungalows—villas we should call them in England—have multiplied; and one town, Simla, having a resident population of six thousand, and full twelve thousand more as visitors, has gardens numerous enough to support a professional whose card is now before me, and may be useful for reference to some of your readers, so I copy it:—"H. Bwyne, Practical Gardener, Seedsman, and Florist, Collector of Coniferae and other Seeds, Simla, Punjab, India. Plans designed and prepared for the laying-out and improvement of gardens; the erection of horticultural buildings, and work relative to horticulture undertaken."—G.

NOTES AND GLEANINGS.

At a recent meeting of the Philadelphia Academy of Natural Sciences, Mr. Thomas Meehan referred to a former communication in which he exhibited specimens of *EUPHORBIA CORDATA*, or *E. UNMISTATA*, collected by him in the Rocky Mountains, and which, normally procumbent, had assumed an erect habit on being attacked by a fungus *Ecidium Euphorbiae hypericifoliae*. He now found that the common trailing *Euphorbia* of our section, *E. maculata*, when attacked by the same fungus, assumed the same erect habit. There was an additional interest in this observation, from the fact that with change of habit of growth there was a whole change in specific character in the direction of *E. hypericifolia*. In a comparison of the leading characters of the two species, we

see that in *E. maculata* there is a profusely hairy stem, while that of *E. hypericifolia* is nearly smooth. The same is true of the fruit. The leaves of the former species are very oblique at the base, the latter nearly regular. The flowers are produced in all the axils. In the *E. hypericifolia* the stems have a tendency to be nodose at the joints, while *E. maculata* is nearly free from this character, and the flowers are mainly in heads at the ends of the branches. The *E. maculata* after the fungoid attack becoming erect, also becomes nodose, and has the flowers on the ends of the comparatively smooth branchlets, while the leaves have lost their pointed obliquity; and, in short, all the characters make an intermediate between the two species. He said it would not be fair to assume, from these facts, that *Euphorbia hypericifolia* was an evolution from *E. maculata*, but, as there could be no doubt that nutrition was one of the factors in the government of form, we could say that certain phases of nutrition brought about by an attack of a minute fungus would change the characters to the direction of those in that species.

EXTRACTING LARCH CONE SEEDS.

In answer to "B. B.," the best way to extract the seeds from Larch or any of the Fir cones, is to gather them in summer, put them loosely in sacks, and lay on a moderately heated fire, turning them two or three times a-day until they begin to open, then place on sheets full in the sun for a few days, taking them in at night to some dry place. The seeds will easily come out by slightly heating them with a stick.—S. TAYLOR, *Castlecroft*.

NOTES ON VILLA AND SUBURBAN GARDENING.

A Hotbed and its Management.—At this dull time of the year, and duller still in gardening matters so far as the amateur is concerned, who, as many of them have gardens, but no glass houses, and just a few frames or a pit, which afford the means of doing a little forcing provided the necessary material can be found. Where this can be done, and their fancy leads them to the cultivation of early Cucumbers, let me remind them that this is now the time to set about the work, because the collecting of manure and the necessary preparation will take some time, and at this slack time of the year such time can be better afforded than at any other. Procuring the materials may be to many a very difficult part of the business, inasmuch if they are not made on the premises it has to be purchased. But let us make the matter as easy as we can by saying that it is not necessary that the bed should be made up of pure horse manure only, but it is beneficial as a moderator of heat to add quite one-third of fresh leaves from the trees; Oak leaves if possible, they being more lasting, especially if added in a dry state. However, many a hotbed is made without any addition to the manure, and very well they answer if done properly. In provincial towns leaves may many times be procured for the work of collecting or for a very trifling amount by purchase. First of all it is better to decide about the frame, whether a single light or double one. I advise the latter if sufficient material can be got together and ensured, not only for the bed proper, but also for the after-work of linings, &c. As at this early time of the year the bed will need to be when made up quite 4 feet 6 inches high at the back, and 3 feet 6 inches at the front, and as the materials first heated as they ought to be before making up, and all the rank heat sweated out of it, will reduce the bulk quite one-half, an idea will be given as to the necessary quantity for the first start. About twice a-week, if the material is in heating condition, it will need turning over, and each time it ought to be turned inside out and well mixed, and it may be a fortnight before it is ready. But I must first mention that before the turning commences the necessary quantity must be got together, as it does not answer to continue adding fresh and rank manure to that half-prepared. The bed will be much longer in becoming sweet by that plan, and some of the material will be too far gone for use.

Now we come to the making of the bed; and this should be placed in a sheltered yet sunny spot, but not on a wet cold bottom of earth. Either the bottom must be raised up by a foot of rubble for drainage or a layer of rough wood a foot thick, covered over with rough litter before the bed is made up. This plan is a wonderful help to the bed in retaining its heat, and also a good medium for drainage. Set out the bed 6 inches wider than the frames on all sides, and build it up firm by beating down with the fork as the work goes on, but it is not to be trodden. When all is done place the frame upon it, and shut it up till the steam and heat begins to rise, and then let out three or four times a-day by opening the light about an inch, not more, or the heat will not rise gradually, as the bed will receive

a check. Perhaps a week will be needed to ascertain the heating power of the bed. Beds are liable to become too hot, or there may be a little rank heat to get rid of before further proceeding. However, when the heat can be ensured at about 90° without fear of becoming hotter, the soil may be put in, and this no more than a couple of bushels in the centre of each light thrown in a heap. This soil should be a mixture of turfy loam one-half, and leaf soil and rotten manure one-quarter each. When this becomes warmed through sow a few seeds in a pot, and plunge it in the soil, or sow the seeds in the soil itself, they will soon be up; however, let them remain till the rough leaf appears, then pull all out except one plant to each light, or take them up and pot them to provide against future wants. Keep the temperature at night as near 70° as possible; and as they grow the white roots will be seen at the outside of the soil, then it is necessary to add a few inches of soil, and proceed in this way till the plants grow large enough to peg down and stop, when the bed may be finished off by soiling-down. I ought to say that the precaution should be taken to warm the soil before taking it to the frame, otherwise it lowers the temperature to such an extent that is not easily recovered. The same whenever water is applied. As time goes on, and the heat cools down too low, linings of manure should be applied; but if the weather is mild, only back and front at first, and the next time the two beds may be done. This will, perhaps, be a better guarantee for a uniform temperature. Besides the night heat here stated above, one of 50° in the day by sun heat and air will cause them to thrive. Now, a bed of this kind requires constant watching. If it is put up in an exposed place, and a windy night occurs, the heat is blown entirely out of the bed, or perhaps to one part of it, when in a mild day it would become too hot, and perhaps burn the roots of the plant. Again, sometimes it happens that after the bed is made up, and the plants growing, the bed suddenly becomes too hot. At such a time, if the weather is so cold as to preclude air-giving, the sides have to be pierced with a pole in several places to let the heat out, and at nights it is always necessary to cover up the frame little or much, according to the weather. So that those who pride themselves in growing Cucumbers by dung heat must make up their minds to pay them every attention in order to be successful.

I mentioned in the early part of this paper that I admired a double-light frame, I will now state my reasons. Towards mid-summer, when the plants of this first crop shows signs of exhaustion, one light can be cleared out to the bottom of the bed—that is, manure as well as soil, and a fresh lot put in the same condition as before, and treated the same in turn; the soil is put on, and the plants, which should be previously prepared, planted out from their pots. The light is divided off by boards, and treated as a separate frame. In time the other light is served in the same way, and so a succession of Cucumbers is kept up by this system in a very satisfactory way. It may be said that when one light is cleared out the roots of those plants in the opposite light must be cut, and it is true they are; but I have never known them to show any injury from it, and I have often practised the plan. The system can be recommended to those with small conveniences, and that is my reason for naming it. Last year I knew an amateur who followed it up, and, besides supplying his own table, sold enough Cucumbers to pay for the manure and his trouble throughout the summer. I believe he has already collected his materials for a bed on the same plan.

Now there are many sorts of Cucumbers to be had, most of them good for particular purposes, but not hardy enough in constitution to be recommended to an amateur with such conveniences as I have described. I therefore take this opportunity to state that one of the best Cucumbers—I may say the best sort I have ever found, and I have tried many—is Coolin's Derbyshire Hero. This will be found a real amateur's Cucumber, for it grows from 15 to 18 inches in length, is very prolific, a vigorous grower, with a hardy constitution, just the thing for a frame, and outdoor beds also. I make up a bed outdoors every year, and plant it out, and treat it the same as the ridge Cucumbers, and it is thoroughly satisfactory. Those who knew Leslie's Long Ridge Cucumber, and as it was, will, I believe, find its superior in the one I recommend.—THOMAS RECORD.

LOUGHCREW.

THE SEAT OF J. L. NAPER, ESQ.

WHEN London published his celebrated "Encyclopedia of Gardening," he said of Loughcrew that "it gave every promise of magnificence." The promises have been amply fulfilled. In every department—the garden, farm, plantations, and general keeping of the estate, it is superior to most country residences in Ireland, and inferior to very few. There is a unique completeness about all its arrangements which is seldom met with. Each department is carried out extensively, and the work well done. You can see good farming and good gardening—prime stock and well-stocked preserves. Few Irish

gardens have made a better mark in the horticultural world, and the young men trained there are to be found in every direction near and far. Its fame in stock-breeding is not less well-established, as the annals of the Irish societies testify; whilst home-sport is sedulously cared for in its well-filled preserves, and the thousands of pheasants reared here annually. All this is done with the strictest order and neatness, and these desirable accompaniments are not less observable even on the outlying portions of the property occupied by tenants and labourers. This is a gratifying fact; for, unfortunately, we oftener find lying in close proximity in this country luxury and squalor, order and disorder, than is at all desirable. It is, however, with the gardens I intend more particularly to deal. I had the pleasure of looking over them lately with the efficient gardener, Mr. R. Burns, just before the late spell of bad weather, and it was certainly a treat not to be forgotten. I had frequently seen Loughcrew before, but I doubt if I ever saw it, particularly in the flower-garden department, come so near absolute perfection. It will not therefore, I trust, tire your readers to give as brief a *résumé* as possible of the most noteworthy features.

By the way, an important fact to sight-seers, Loughcrew is easily reached. It is a great drawback to many of our best

is an oval, exceedingly well arranged indeed, with a circle at either end. The end beds are planted in concentric circles, the centre being *Abutilon Thompsonii*, the outer ring dark *Heliotrope*. The planting of the oval being a much more complicated affair, I enclose a sketch (fig. 155), numbering the beds and their occupants, which will, I trust, convey a clearer impression than a mere description in words. The *Coleus* was beautifully coloured, and as regular in height as if run in a mould; whilst the pretty little *Alternanthera* and *Lobelia pumila* filled the outer curves to perfection.

Passing the end of the house the flower garden lies stretched before us. It is a snuk or panel garden the whole length of the mansion, and of a considerable breadth. A terrace and broad gravel walk run round on three sides, with a more elevated terrace at the further end, which is backed-up with a fine conservatory. A walk leading from where the mansion opens on the parterre cuts the flower garden in two, and midway sweeps round an ornamental fountain. The present flower garden is comparatively new, being entirely the work of the present gardener, Mr. R. Burns, and totally different from the old flower garden which existed when he came there. It does him infinite credit, and this season in every detail it

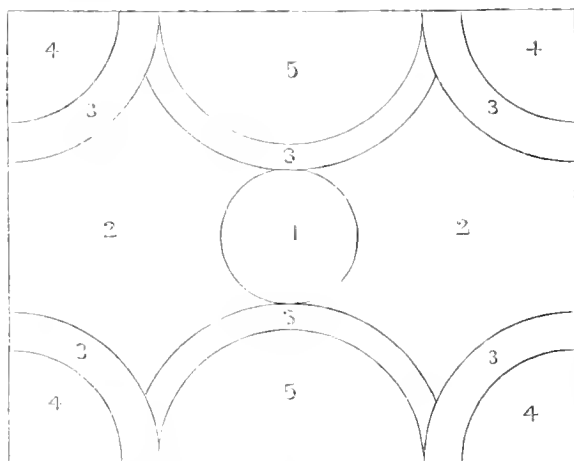


Fig. 153.

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| 1. Princess of Wales Geranium. | 4. <i>Thymus citridora aurea variegata</i> |
| 2. <i>Sempervivum californicum</i> . | 5. <i>Mesembryanthemum cordifolium</i> |
| 3. <i>Alternanthera amabilis</i> . | var. |

places being situated in backward localities—they are not easily got at. The Dublin and Drogheda Railway runs to Oldcastle, from which, if young and active, a walk of two miles will take you to your destination; if not, cars are always to be obtained at the station. And the scenery is some of the finest; certainly nothing like it in Meath. The country is bold and hilly, yet, being so judiciously planted by the late Mr. Naper, looks neither bleak nor barren. Some of the hills attain a considerable height, and on a range of these overlooking the mansion and grounds excavations were made a few years since at Mr. Naper's expense, and conducted by a competent antiquarian, which led to the most interesting results. Should the visitor be a student of archaeology, a trip to the hills will be at once pleasurable and profitable, whilst to anyone the vast view to be obtained will well repay the trouble of the ascent.

The mansion is approached, going direct from Oldeastle, by a broad and well-kept drive, with a handsome lodge in cut stone, and some neat flower beds in front. There are two other beautiful entrances, one with a very elegant rustic lodge, and which skirts an imposing piece of water as it approaches the mansion. The house is of the Grecian order, and built exclusively, as well as the offices and stabling attached to the courtyard, of the finest cut stone. The front is supported by a long sweep of terraces kept closely shaven, and at the end and rear is situated the flower garden, to which we will first direct our attention.

Entering by a neat gate we find on our left, immediately under the end windows of the house, three very pretty beds, whether we regard the arrangement of colours or the suitable adaptation of the plants as to size and habit. The centre bed

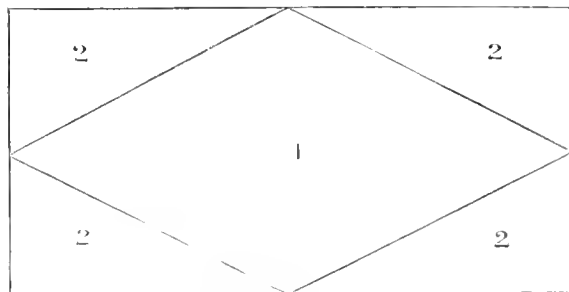


Fig. 154.

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| 1. Lady Plymouth Geranium and
Lobelia, plant for plant. | 2. Golden Feather. |
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came as near perfection as possible. Here again the *Coleus* did admirably. Some of the Golden-bronze Geraniums made splendid beds, of which I may particularly mention Lady Cullum, Her Majesty, and Kentish Hero. The beds were planted in the following manner:—

- | | |
|---|---|
| 1.—Geranium Snowflake, edged with <i>Lobelia pumila</i> . | 3.—Geranium Gloire de Corbeney. |
| 2.—Geranium Lady Cullum. | 4.—Geranium Golden Cerise. |
| 5.—Pink Pelargonium Illustration. | 6.—Centre, <i>Abutilon Thompsonii</i> ; Pelargonium Waltham Seedling. |
| 7.—Lord Palmerston. | 8.—Her Majesty. |
| 9.—Centre, <i>Coleus Verschaffelti</i> ; Pelargonium Countess of Warwick; Cerastium. | 10.—Pelargonium Kentish Hero. |
| 11.—Duchess of Sutherland. | 12.—Centre, <i>Abutilon Thompsonii</i> ; Pelargonium Black Dwarf. |
| 13.—Pink Pelargonium Madame Barre. | 14.—Golden Cerise. |
| 15.—Pelargonium Emile Lican. | 16.—Sunset. |
| 17.—Fairy Nymph, edged with <i>Lobelia pumila</i> . | 18.—Jean Sisley centre, then Dance Bijou, edged with <i>Ageratum Tom Thunb.</i> |
| 19.—Centre, <i>Coleus Verschaffelti</i> , surrounded by a star of Golden Feather; outer segments, <i>Lobelia pumila</i> . | 20.—Same as 19. |
| 21.—Victor Millet, edged with Crystal Palace Gem. | 22.—Illustration, edged with Little David. |
| 23.—Lady Plymouth, with Iresine dotted through | 24.—William Underwood, edged with Crystal Palace Gem. |
| 25.—Madame Barre, edged with Little David. | A.— <i>Cineraria maritima</i> , bordered with <i>Lobelia pumila</i> . |
| B.—Dark <i>Heliotrope</i> , bordered with Golden Thyme. | C.— <i>Polenonium coruleum</i> , bordered with <i>Lobelia pumila</i> . |
| D.— <i>Ageratum Imperial Dwarf</i> , bordered with Golden Chain P. | E.— <i>Iresine Lindeni</i> , bordered with Mangles' Variegated. |
| F.— <i>Centaurea candidissima</i> , bordered with <i>Lobelia</i> . | |

On the terrace next the house are four beds which deserve especial mention, as they are models of elegance and taste. They are oblong beds, and planted as in the annexed illustration. The combination of Lady Plymouth with *Lobelia* has a pleasing and chaste effect, but the other bed should be seen to be justly appreciated. It abundantly proves that in this country at least gardeners should depend for colour more on foliage than bloom, and it was instructive to see how beautiful and fresh this bed looked dressed with its *Sempervivums* and *Alternantheras*, although the season was drawing to a close when I saw it. The conservatory at the extreme end of the flower garden is well stocked with the things usually found in such structures, with fine specimens of *Cyathes dealbata*,

Dicksonia, Pteris scaberula, and two fine Filmy Ferns, Todea pellucida and Trichomanes radicans.

Around the mansion, by the drives, and through the dressed grounds which intervene between the kitchen and flower garden, are scattered many fine specimen trees and shrubs. Of these I may particularly mention the fine row of Irish Yews, and nice examples of Cupressus Lawsoniana, Wellingtonia gigantea, Pinus Picea, Nordmanniana, Abies Douglasii, and Cryptomeria Lobbii. The kitchen and fruit gardens, which contain somewhere about five Irish acres, are situated a considerable distance from the residence and completely out of view. As we approach these the style of gardening assumes, and properly so, a transitional character, forming a natural and connecting link between the stiff lines and gorgeous colouring of the parterre we have just left, and the more humble beauties of the other garden. The exterior of the garden wall is clothed with the usual things employed for that purpose—Roses, Magnolias, Wistarias, &c. A strip of ground in front is kept in short grass planted with ornamental shrubs,

through which are dotted a few beds very appropriately planted. One in particular I admired extremely at once for its simplicity and richness. It was a circular bed filled with alternate plants of Variegated Maize and Chilian Beet. This had quite a sub-tropical effect, and the Beet was the best coloured I ever saw. Mr. Burns told me it was a peculiar strain sent out by Messrs. Tait & Co., of Dublin, and although the Beet is by no means a favourite of mine, I must say that if it could be always got so well coloured, it could be turned to much account in our gardens. Entering by a fine ornamental gate the kitchen and fruit gardens, we stand at once in front of those borders, which years ago when ribboning was in its infancy and all the "rage," were the wonder of this part of the world. They are no longer planted in that fashion, but they are, nevertheless, very effective. The borders remain as formerly with the well-known hedge at the back of each, and which threw into such glorious relief the long lines of glowing colour. At present they are planted as mixed borders, having a row of Hollyhocks at the back, with

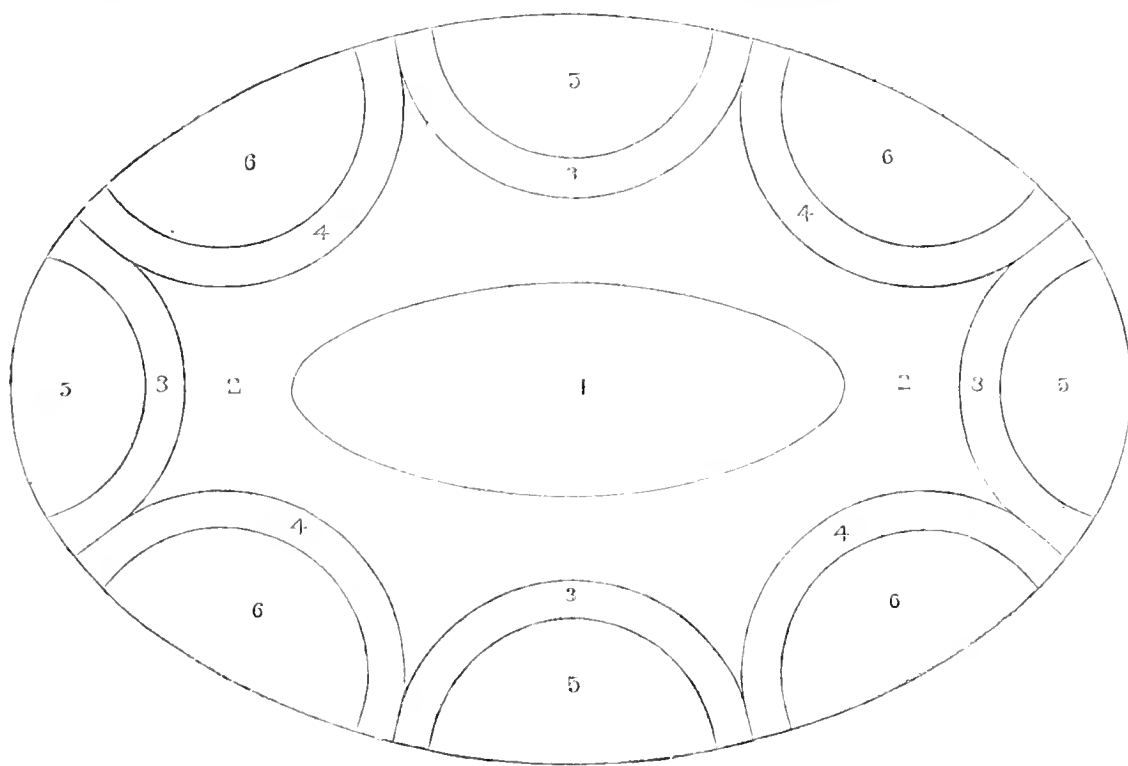


Fig. 155.

1. Iresine Lindenii.
2. Coleus Verschaffeltii.

3. Cerastium tomentosum.
4. Mesembryanthemum cordifolium.

5. Lobelia pumila grandiflora.
6. Alternanthera amabilis.

a plant of Tait's Chilian Beet between each. The remainder of the borders is filled with an immense variety of bedding Geraniums, Violas, &c., most of them new and rare kinds. Among them was a white-flowered variegated Geranium—Victor Millet, Vesuvius, Mrs. Mappin; and of Violas, some of them very pretty, Blue King, The Tory, Advancer, Dickson's Golden Gem, Vanguard, &c. Next the gate as we enter, and formed by a bend in the hedge, are two small beds very beautifully planted. At the back is Dell's Beet, then Golden Feather, then Tropaeolum Cooperi, and in front Ageratum Tom Thumb. The border is divided midway by the intersection of two walks, with a dial occupying the central space. Here, again, by a bend in the hedge, are formed two small curved beds, and these are planted with several varieties of Bicolor and Bronze Geraniums, at once for the purpose of ornament and comparison. Amongst the best of these I noted Prima Donna, Sybil, Princess of Wales, Goldfinder, C. H. Wills, Waltham Bronze, one of the best; Reine Victoria, &c. From this the border continues in a straight line to the top of the garden, where it is terminated by a neat structure, filled at the time of my visit by a nice collection of Camellias.

To say that fruits and vegetables were well and largely grown would be superfluous, or that the cleanliness and keeping were all that could be desired.

The division containing the several ranges of houses is separated by a wall from this, and entering at the top or highest point the first we meet is a fine lean-to some 116 feet long and 8 feet wide. This is devoted almost exclusively to Peach and Nectarine culture, and though most of the fruit was gone at the date of my visit, enough remained to show that the crop must have been first-rate, whilst the health and condition of the trees were all that could be desired. The principal Peaches grown were Noblesse, Late Admirable, Walburton Late Admirable, Bellegarde, Salway, Galande, Early Mignonne, Acton Scott, Early Grosse Mignonne, and Elruge Nectarine. A fine Brown Ischia Fig, carrying a fine crop, occupies one end of the house, and a number of Tomatoes in pots are grown in front. The Peaches and Nectarines are grown on the back wall.

The next range of houses are late vineries. Here the crop was very fine indeed, particularly Muscat Hamburgh, which is frequently found so hard to manage. This is inarched on a

seedling Vine, and was giving complete satisfaction. The second house contained Barbarossa, carrying bunches quite 2 feet in length; Black Hamburg, White Lady Downe's, Black Alicante, really splendid; and Duchess of Buccleuch, finer than I thought it could possibly be grown. A similar range of houses consisted of an early house quite cut away, and a Muscat house. The early house was planted with Black Hamburg, Muscat Hamburg, and Buckland Sweetwater. The Muscat, which was still carrying some fine fruit, consisted principally of Muscat of Alexandria, Muscat Escholata, Barnes' Muscat, and Bowood Muscat.

The next range, which may be called the greenhouses, is in three divisions: one filled with the newer varieties of *Coleus*, *Amaranthus salicifolius* well grown and very ornamental, *Alternanthera paronychoides* major, &c.; another devoted to *Fuchsias*; and the third filled with a choice collection of greenhouse plants, many of them noble specimens. Amongst the most remarkable were the following:—*Acacia Drummondii*, *Adenandra speciosa*, *Rhynchospermum jasminoides*, *Pleroma elegans*, *Erica depressa*, *Cavendishii*, and *jasminiflora alba*, with *Genetilis tulipifera* and *fuchsoides*. Next comes a stove in two divisions, well filled with the usual tenants of such structures. It would quite unnecessarily extend this article to give a detailed list, so I will content myself by saying that the following were particularly noticeable—*Anthurium Scherzerianum*, *Bougainvillea glabra*, *Pandanus Veitchii*, *Gardenia Stanleyana*, *Clorodendron Balfourii*, and the pretty little *Urceolina aurea*. Here were also very fine plants of *Eucharis amazonica*, *Stephanotis floribunda*, and *Eranthemum leucocervum*.

The next range we enter is a propagating house in three divisions, efficiently arranged and heated. Two of these divisions were literally filled with a beautiful and healthy stock of young plants in different degrees of development—fine-foliaged and ornamental stove plants and Ferns. Particularly noticeable were *Maranta hieroglyphica* and *Palicourea discolor*. The third division had just been planted with *Sion House* Cucumber for winter use.

Retracing our steps a little we next come to a house devoted to the growth of fine-foliaged plants, and which contains the gems of the whole collection. They are really beautiful, and evidence the highest cultural skill and care. To be rightly appreciated they should be seen. Here we have the pretty *Acalypha tricolor*, *Alocasia gigantea*, *Jenningsii*, &c.; *Crotons pictum*, *undulatum*, *Weismanni*, and many others; *Dieffenbachia Barranquiana* and *variegata*, *Dracaena Cooperi*, *gracilis*, *Gulfordii*, &c.; *Hibiscus fol. variegata*; *Maranta* beautifully done, including among others the following—*alba lineata*, *Makoyana*, *Vanden Heckeii*, *tubispatha*, *Warszewiczii*, and *Veitchii*; *Peperomia argyrea*, and *Sanchezia nobilis variegata*. Adjacent is a fernery, not very extensive, but containing some fine Ferns and Mosses. Among the former I may mention the lovely *Adiantum Farleyense*, *Veitchii*, and *tinctum*; *Blechnum boreocandense*, *Lomaria gibba*, and *Trichomanes radicans*.

The lower portion of the ground is occupied by pits and frames, which, when I saw them, were filled with *Roses*, *Chrysanthemums*, *Cinerarias*, *Primulas*, *Cyclamens*, and a host of things useful for the winter and spring decoration of the mansion and greenhouse. Amongst other things Mr. Burns was growing largely a *Campanula*, which he calls *media calycanthema alba*, for this purpose. Here was also being struck in boxes the immense stock of bedding stuff required for so extensive a place, and which appeared to be just making themselves at home in their new quarters. This brings us to the garden gate. There is a still lower stretch of ground in which are situated the Melon and Cucumber frames for summer work, the reserve grounds, young men's houses, offices, &c. And so having spent a very pleasant, and I trust profitable, day, I bade goodbye to Mr. Burns, and turned my back on Lougherew. If the recollection of my visit has interested even a few readers, I am repaid.—EXCELSIOR.

[We hoped to add a view of the gardens, but the photograph sent to us is not suitable for wood engraving. We have a ground plan of the garden, but it is too large and elaborate to be reduced to the size of a page; we are obliged, therefore, to be contented with three of the beds and their arrangements.]

DOINGS OF THE LAST AND PRESENT WEEKS.

A CORRESPONDENT recently alluded to the fact that failures occurred in large as well as small gardens. Many years ago an intimate friend, who was acquainted in some way with the

details of the management of one of the largest gardens in England, stated that it would quite surprise those whose only knowledge of gardening had been gained in small or medium-sized gardens if they were made acquainted with the failures and mistakes made in the one to which he alluded. We would fancy that in the smaller gardens there would be less probability of mistakes being made or failures taking place if the person in charge does not attempt too much with the limited means usually at his command. We have known gentlemen who expected their gardener to grow Pines, Vines, Cucumbers, and Melons in one house; but a gardener who would undertake to do this would have himself to blame if he failed either to satisfy his employer or gain credit to himself. Many of the owners of small gardens also on first taking to gardening are very enthusiastic; they run hither and thither, and whatever they fancy in other people's gardens they would like to try in their own. They try everything, but have not perseverance enough to do anything well, and failing in their expectations on all hands they give it up in disgust. But mark the successful man, and the one who seldom has any failures to chronicle. He has a passion, shall we call it, for, say, *Roses*, and whether the soil of his garden is unsuitable or not, *Roses* he must and will have; and after he has surmounted every obstacle that was opposed to his success, he will not stop there, but will add some other class of plant, and yet another, and another, until, step by step, he becomes a successful gardener. And how is this success attained? Simply by patient and laborious work and study. Whatever is undertaken is done with the intention of being thoroughly investigated. The plants or fruits are watched daily, and if anything is amiss it is quickly detected, and immediate steps taken to set the wrong right. Then books, weekly papers, and monthly periodicals are read and re-read; a wrinkle is gained here and another there, so that every hour of well-directed study lends its quota to complete the ultimate success. In small gardens, where the head gardener can do much of the work with his own hands, and where but little of his time is taken up superintending others, he ought to present better examples of good culture than the man whose time is wholly given to overseeing.

The weather has been very changeable during the last week, and all out-of-door operations have been much retarded, owing to alternate days of frost, thaw, and rainfall. The farmers also complain of the difficulty they have to get the seed Wheat into the ground in good order.

The only work we have been enabled to do in the

KITCHEN AND FRUIT GARDEN

has been to prune Currant and Gooseberry bushes; they are all trained in the bush form, which is the most natural and that most frequently adopted. The system of pruning is easily understood, even by those who have had but little experience. All the young wood is spurred closely back, leaving only the buds that cluster together thickly at the base. Any young wood that is required to fill up has the points merely taken off on the Gooseberry bushes. The young wood on the Currants at the extremity of the branches is cut back much closer to the old wood. If the young wood of the previous year is, say, 18 inches long, two-thirds of this ought to be removed. But Gooseberry and Currant bushes are amenable to almost any system of training, and one of the prettiest sights to be seen in the kitchen gardens at Ashridge, under the care of Mr. Sage, is a row or two of espalier-trained Gooseberry bushes, and the method of training is as simple as it is pretty. A number of horizontal growths are trained right and left from an upright leading shoot. As the leading growths are trained to the horizontal wires side shoots are freely produced, which are annually spurred back until the cordon bristles with fruit buds, and the fruit clusters on the whole length of the branch like strings of Onions. We also wheeled a good dressing of manure on to the Asparagus. The usual method of treating this crop is to dress the beds with manure now, and by forking up the alleys between the beds in the spring sufficient soil is obtained to cover a portion of the manure, some of it being dug into the alleys to replace the soil that is taken out. In our case the Asparagus was planted in rows, and the crowns are not deep enough in the ground, so that we will wheel some spare soil on to the quarter and quite cover the manure with it.

Pine Houses.—The principal thing to be guarded against here is undue excitement. We have a few fruits awelling slowly in the fruiting house, but the night temperature is not over 60°; and even if the sun should occasionally peer out it has little effect on the glass, so that the temperature by day is seldom more than 5° higher. To force the plants on in a high temperature under such circumstances can only cause a weakly growth, which future good management would scarcely set right. After Christmas, with the lengthening days and more brilliant sunshine, the temperature can be increased 5°. It is still necessary to damp the paths, walls, &c., of the house once a day if the weather is cloudy and dull, in drying frosty weather twice a day. Nor do we neglect to give air daily, just a very little at the apex of the roof. The plants will not require any water

except under exceptional circumstances during the next eight weeks.

Cucumber House.—The present is the most trying period of the whole year for the occupants of this structure, and success can only be assured by careful management. The first essential is to maintain a suitable temperature without requiring to overheat the hot-water pipes. In the house under our care, even in severe frosts the thermometer seldom falls below 60°, the usual minimum being 65° with the usual rise by day, which at present is seldom more than 5°. Cleanliness is next. Even under the most favourable circumstances the plants will not thrive if insect pests are allowed to breed upon them; thrips, red spider, and green fly are equally persistent in their attacks. The glass both outside and inside must be clean. The frequent fogs in the neighbourhood of London leave a coating of blacks, not only on the external glass and woodwork, but it penetrates to the inside and chokes the breathing pores of the leaves. Distance from the glass.—We get the leaves as closely to it as possible without their coming into actual contact. The trellis to which the plants are trained is made so that it can be lowered or raised to or from the glass as the changing seasons seem to require. The distance in winter is 9 inches, and in summer 14½ inches. We sowed seeds about ten days ago; it is about the worst time in the year to put them in, but they vegetated freely in a brisk bottom heat. As soon as the seed leaves formed the plants were potted-off separately into small pots, and again plunged in the bottom heat until fresh roots were formed, when the pots were taken out of the plunging material and placed on a shelf quite close to the glass. They are now for the time of the year making healthy vigorous development.

PLANT STOVE.

We can only reiterate our remarks about cleanliness, our time having been employed cleansing staging, wood, and glasswork, as well as removing white scale from Cattleyas, Lælias, and other Orchids. There is but few plants in flower at present, and it is to the Orchid family that we must look for the best display at this dull season. *Lælia anceps Barkerii* will soon open its large handsome flowers. *L. autumnalis* is now in flower, and will never disappoint if grown like its Mexican compeer, *Lælia majalis*, in the sunniest position of the cool house. The beautiful *Calanthes*, which anyone having a slight knowledge of plant-culture can grow, ought not to be omitted in any collection of stove plants. Whether the spikes are used for decorative purposes indoors, or for the embellishment of the plant stove, they continue in beauty for many weeks, and their culture is so simple. After draining the pots well, and placing some of the most fibry portion of medium turfy loam over the drainage to prevent the compost from mixing with it, pot the bulbs (three large ones in a 6-inch pot) just before they start into growth in February, using the fibry portion of good loam in a rough state, and they succeed in this without any admixture, except enough sand to keep it open; but the strength of the spikes are increased if a little rough rotted frame dung and leaf mould is added, about a sixth part of each. The pots from which all the flower spikes have been cut will not receive any more water until February. We have also an excellent display of *Ixoras*. *I. javanica* is exceedingly handsome, and it continues in flower for six or eight weeks. They will flower freely now if the flower heads are pinched off before the flowers open during the summer months. *I. Colei* is also in flower, and is pretty; but unless the plant is grown well this variety is not striking. Watering is very carefully attended to, and the atmospherical conditions of the house are also of importance. A moist condition of the atmosphere is imperative, but no vapour from hot pipes. The conditions are right if delicate flowers last long in beauty.—J. DOUGLAS.

TO CORRESPONDENTS.

*. All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

Books (A Young Reader).—The "Hentig Manual" can be had by post if you enclose seven postage stamps with your address. (Orchids).—Appleby's Orchid Manual. You can have it post free from our office if you enclose 2s. 6d. with your address.

STAG'S-HORN FERN CULTURE (J. F. S.).—This Fern (*Platycerium alcicorne*) succeeds quite well in a pot, on a block of wood, in the crevices upon the face of rockwork, and in a basket. The latter is a nice way of growing it, and it, if anything, grows better in a suspended basket than in a pot. It ought to

be established in the basket, and then its position reversed, turning upside down, the plants and compost being secured by copper wire. We have seen a plant in a pot suspended, the plant secured from falling out of it by copper wire when it was suspended upside down. The barren fronds soon cover the pot, and water is easily given from above. It succeeds admirably in a compost of turfy brown peat three parts, and half a part silver sand and crocks, used rather rough and well mixed. Good drainage must be given. There are no doubt several plants and Ferns well worth introducing from Madeira, but they would not be new, as the island has long been ransacked of its botanical treasures by Europeans.

WINDOW PLANTS NOT THRIVING (J. W.).—The placing of the sharp sand upon the surface of the pots would not cause the injury you complain of, nor would it keep out frost. It would not do any good in any quantity, but contrariwise, and ought to be removed at once. The kind you name is not good for plants; silver sand is the most suitable. Probably your plants are suffering from cold. You ought at night to remove them from the window if the window be too cold, it being necessary they be kept from frost and be watered very sparingly, giving only sufficient to keep them fresh. The bulbs in the spare room in pots ought to have water to keep them moist, and should have air whenever the weather is mild, and when they appear above ground should be placed near the window, or they will draw towards the light and become weak. In very severe frost the window should have some thick protective material placed over it, so as to save them from frost. It is a mistake to bring them forward in this way if you intend to plant them outdoors. They would have been infinitely better planted in the bed in October or early November where they are to flower, as, should the weather prove severe in spring, their growth, from being made in the room, will be liable to be cut by frost. Small coal mixed with the soil is a mistake; sand or crocks broken very small is the proper thing. Do not give them liquid manure, and plant them out so soon after this as you can, at least by the time when they have grown an inch. In the room their growth will only become poor and drawn.

PLANTING LILY OF THE VALLEY (S. P. P.).—November is probably the best time to make new beds of these, but any time in mild weather up to March inclusive will answer. Have the ground well and deeply dug, enriching it with leaf soil or well-rotted manure, and plant them in rows a foot apart, and in small clumps of three to half a dozen crowns the same distance between, and an inch deep—that is, the top of the crowns, and water abundantly in dry weather, keeping clear of weeds. In autumn loosen the soil lightly, not disturbing the roots between the rows, and give a top-dressing about an inch thick of decayed leaves or other rich vegetable compost. If this be not at hand, half the thickness of well-rotted manure will answer. In spring you ought to have flowers.

PEACHES, NECTARINES, AND APRICOTS AGAINST A BOARD FENCE (Hem.).—The trees growing well and showing abundance of blossom, but not fruiting, indicate the climate is not unfavourable; but the blossom and probably young fruit are destroyed by frost. From the trees showing blight, which we presume is mildew, we apprehend the climate is not so favourable as it appears, or the soil. Two feet is an outrageous depth to plant fruit or any kind of trees. They ought to be planted so that the setting-out of the roots—i.e., the uppermost, are on a level with the surrounding ground, and these should not be covered deeper than 3 inches with soil. If yours are deeper, and as the ends of the shoots die back the wood is not well ripened, lift them carefully, taking care to preserve the fibres and as much soil as possible adhering to them, and plant as before named with the roots level with the surrounding ground, and cover them 3 inches deep, giving to the surface a mulching of short littery manure. Add to the soil a fourth of well-rotted manure, and make the soil very firm under, around, and over the roots, so as to induce stiff short-jointed wood. Syringe the trees freely in summer after May in the evening of hot days, and water in spring if the weather be dry. Augment the covering; canvas is better than a net protection.

SOWING FOR SUMMER BEDDING (Young Beginner).—You will be doing well to depend chiefly upon hardy annuals, of which we name a few which, continuing long in bloom, are desirable:—*Alyssum maritimum*, *Bartonia aurea*, *Calliopis marmorata nana*, *Convolvulus minor*, *Erysimum Peroffskianum*, *Leptosiphon densiflorus*, *Linum grandiflorum coccineum*, *Nasturtium Tom Thunb* var. *scarlet*, *King of Tom Thunb*, *scarlet*, yellow, and crimson; *Nolana stipulifolia*, *Saponaria calabrica* and *S. calabrica alba*, *Sauvathia procumbens flore-pleno*, and *Silene pendula ruberrima*. The *Silenes* are very pretty, but scarcely continue long enough in bloom for summer bedding. These should be sown early in April where they are to flower. In your frame, which we presume you can make a slight hotbed for, you may sow early in March in pots or pans, or, if you have no heat, at the end of March or beginning of April; if heat, sow in March. *Ageratum Imperial Dwarf*, *Lobelia speciosa*, *Petunia hybrida*, *Phlox Drummondii* vars., *Senecio elegans*, double vars., crimson, red, and white; *Tagetes sigata pumila*, *Verbena hybrida*, *scarlet*. These as well as Ten-week Stock, German Asters, Dwarf French Marigold, and *Helichrysum*, which may be sown when the others are up, or early in April. When large enough to handle they should be pricked-off about an inch apart and grown-on in the frame, hardening well off before planting out. The height and colour you may see in any catalogue. Golden Feather *Pyrethrum* treated in the same way will make nice plants by May, and so will *Stellaria graminea aurea* if you can procure seed.

Roses (West Coast of Ireland).—We should not have more than fifty standard plants, and these we should dispose alongside of the walks, or positions where they may be readily examined. Dwarfs on the Manetti we should have for the bed, and smaller beds to suit your taste. We could not, however, advise you as to arrangement, but an oblong bed would answer, as also any form not very broad. The following are the best in their classes:—*Hybrid Perpetual*—Alfred Colomb, *Senateur Vaisse*, *Comtesse d'Oxford*, *General Jacqueminot*, *Charles Lefebvre*, *Fisher Holmes*, *Charles Verdier*, *John Hopper*, *Baroness Rothschild*, *La France*, *Mdlle. Eugénie Verdier*, *Caroline de Samsal*. *Perpetual Moss*—*Mrs. W. Paul*, *Salé*. *Bourbon*—*Baronne Gonella*, *Sir Joseph Paxton*. *Noisettes* require a wall. *China*—*Clara Sylvia*, *Cramoisi Supérieure*, *Louis Philippe*, *Mrs. Bosanquet*. *Tea-scented*—*Gloire de Dijon*. We should have principally Hybrid Perpetuals. Raise rather than lower the beds. The soil would suit *Rhododendrons* and *Azaleas*. Manure and trench deeply for the Roses. Rivers's "Rose Amateur's Guide," to be had through bookseller.

D'ARCY PIPPIN (J. B.).—We recognised the specimens you sent. The Apple is usually called the Baddow Pippin. A gentleman to whom the specimens were shown writes, "I remember being shown the Apple many years ago at Tolsham, D'Arcy, in Essex, by a tall perpendicular surgeon residing there." Grafts may have been taken to Baddow, and from there have come into the possession of the Harrises, nurserymen at Broomfield, "all three of whom, John, William, and Luke, I remember at school in Chelmsford," adds the

gentleman aforesaid. The Apple will be described in the new edition of Dr. Hogg's "Fruit Manual."

ROSE (J. R. Boyd).—The bloom looks like Anna Alexieff, but it is not easy to name, as it came flattened in a letter.

FORCING STRAWBERRIES (M. J.).—The best Strawberry for very early forcing is Black Prince, followed by Keens' Seedling. Of the three varieties you named, President is the best. You should place your pots in the house at once and keep up a temperature of 45° at night, raising it to 50° in two or three weeks, but not higher than this until the flower buds are discernible, when the night temperature may rise to 55°, and ultimately to 60° by the time the flowers open. When in flower the atmosphere must be drier, and as much air admitted as possible. The plants will succeed best on a shelf near the front of the house. The Vines may be taken in when the buds show signs of starting; or if the Grapes are required early the Vines may be started with the Strawberries. If President is started at once the fruit would be ripe early in April.

INGRAFTING PEAR AND GRAFTING PLUM TREES (W. W.).—As the Char-montel Pear tree is very large, we advise you to try three different varieties on it—viz., Williams' Bon Chrétien, Beurre d'Amanlis, and Louise Bonne of Jersey. The best Plums to work on the Plum stocks, if for standards, are Victoria, Prince Englebert, Mitchelson's, Orleans, and as a very early variety, Rivers' Early Favourite. The best for walls are Jefferson's, Coe's Golden Drop, Green Gage, and a good black Plum is Angelina Burdett.

EXPOSING GREENHOUSE VINES (A Subscriber, Birmingham).—It is quite unnecessary to expose greenhouse Vines by passing their stems to the outside during winter. It often injures them, and is never beneficial.

HEADING DOWN A PEAR TREE FOR GRAFTING (A Novice).—Do not head the tree back until the time of putting in the grafts, and this is usually to be done in March, dependant upon the season. The grafts ought to be removed before they are started into growth, and kept with their ends in moist soil or clay. The grafting should be done when the tree buds are swelling; the sap is then up. Crown-grafting will be the most suitable if the branches are over 2 inches in diameter, or cleft-grafting; but if the branches are small tongue or whip-grafting is best.

PEACH HOUSE INFESTED WITH INSECTS (H. G.).—The brown bugs may be brown Peach aphid, which may be removed by dressing the trees now with a solution of soft soap in a gallon of tobacco juice, to be had of any druggist, the soap being thoroughly mixed with the tobacco juice and applied to the trees with a brush, taking care to reach every part and not dislocate the buds, and applying at a temperature of 100° to 120° before the buds swell. It may, however, be brown scale, which may be destroyed by adding to the above-named solution a wineglassful of spirits of turpentine to every half gallon, thoroughly mixing, and applying with a brush. If it be scale, and the trees are badly infested, repeat the application in a week, taking care to thoroughly apply it to every part. This has effectually cleared an Early York and Royal George of brown scale and the aphid upon others, the trees sustaining no injury. Sweet oil would no doubt destroy the scale, and at the same time cause injury to any not-overripe wood. It is a pigment better avoided than adopted in fruit culture. The turpentine must be thoroughly mixed with the solution, and only applied when the trees are at rest.

TRELLIS FOR PEAR OR QUINCE (J. E.).—The space you propose for the upright training is not too little between the branches. The distance between the branches ought not, however, to be less than 8 inches, better 10 inches, as, though the distance may at first appear great, it is none too much when the trees are plentifully supplied with spurs. Usually they answer well at 8 inches. The trees you propose planting are maidens or have been grown one year from maidens, and have two shoots. Cut each shoot as you show in your sketch to originate the shoots A, C, and continue the spring growth in the direction A, B. The heading to A will give you two shoots; one is to be trained upright, forming the branches A, C, and the other taken forward, and when it reaches B be taken upright by a gentle curve, forming the branches B, D. When the shoots A, C, have grown 9 inches take out their points; but the shoots B, D, are not to be stopped until they have 9 inches of perpendicular growth, and then pinch them. Of the shoots which originate from the stopping take up one as leader, and the others pinch at the third leaf. If the leading shoot after stopping does not grow more than 9 inches do not stop it nor shorten at the winter pruning, but at every 9 inches stop the shoots—that is, the leaders, and the side at three leaves. Dispense with winter pruning, or have little necessity for it.

PICKING VINES (Faulk).—Prune them as you propose to two eyes, the Vines being worked upon the spur system, and when they break select the lower shoot if it show fruit, and remove the upper one. By this plan you will keep the spurs short, but by leaving the shoot from the upper eye year after year the spurs soon become long. Of course, when there is not fruit on the lowest shoot it must be removed and the upper fruitful one retained.

LABOUR REQUIRED (A. W. H.).—The extent of gardens you mention will be well kept by nine hands and the head gardener, whose wages ought not to be less than 30s. per week, house, &c.; but so long as the supply exceeds the demand gardeners' wages will, as compared with other trades, be at a discount. Of course there is exception to the general rules: some employers are not ruled by market values.

GARDEN LABELS.—In our notice of "Yeates' Garden Labels," at page 519, his name was erroneously spelt "Yeast."

NAMES OF PLANTS (W. D. C.).—The shrub is *Lonicera involucrata*, Involucrated Honeysuckle. The other specimens were mere miserable leaves. (A Constant Reader).—We cannot name plants from leaves only, we must have flowers besides. (W. H.).—We are obliged to return you the same answer.

POULTRY, BEE, AND PIGEON CHRONICLE.

LEEDS SMITHFIELD POULTRY EXHIBITION.

Held December 8th, 9th, and 10th. The quality on the whole was good, but there was an evident falling-off in the number of entries, consequent, we think, on the reduction of classes for poultry. In former years prizes for both adults and chickens were provided, and the plan appeared to be successful; but this year all ages competed together, and as a natural result in those breeds in which size is a point, exhibitors many of them did not compete, as chickens in such classes as Brahmas,

Cochins, Dorkings, and Game, cannot compete as a rule successfully with old birds. In some breeds, such as Bantams, &c., all ages do well together. We think it worth while reflecting on the matter, and if not too late, as it never is to mend, that the Committee return again to their good old ways.

Game were very good classes. In single cocks two fine old Brown Reds secured first and second with little to choose between; third a very stylish old Black Red. Black-breasted Red cocks a good class. First very good; the pullet one of the best we have yet seen. Second and third also good; but we should have placed 154, highly commended, before either, the cock being perhaps the best in the class in our opinion. Brown.—First-and-cup a splendid pen throughout, and well worthy their position; second a fine hard-feathered pen, as was also the third. Duckwings.—First a stylish pen of chickens—the Birmingham winners we think, and hence a clear win, and apparently honestly shown, exemplifying the old saying, that "honesty is the best policy." Second old birds, too heavy in feather. Third we liked better. Any other variety.—Grand old Willow-legged Piles were first; second and third good Pile chickens of capital quality. *Dorkings*, all ages together, a moderate class. *Cochins* (Buffs).—First capital chickens; second good adults. *Cochins* (Any other colour).—First fine-shaped old Partridge. Second and third capital Whites; old birds well shown. *Brahmas* (Dark).—First, cup, and Mayorese's cup, and second Mr. Ansell's two old pens secured, but we should have transposed them. Lights only a moderate class. *Spanish*.—Amongst them a few good pairs. First the Birmingham winner, old bird; second a capital chicken. *French* were fine classes, Mr. Grant and Mr. Cutlack's Houdana being very good; and Mr. Cutlack and Mr. Crabtree's Crêves were also fine. *Polands*.—Mr. Beldon's first-and-cup birds, old Gold; second Silvers, with his well-known birds; third old Golden cock, good in colour. *Hamburgs* were good classes, the first Black, Golden-pencilled, Silver-pencilled, and Silver-spangled, not forgetting the old Gold-spangled, to which the cup was awarded, all being first-rate. *Bantams* were all good classes. The Black-Red cock of Mr. Hall, to which first was awarded; and the cup pen, Black Reds, Mr. Entwistle's little gems. The Duckwings and Brown Reds were also good. Black Bantama were a large class, and the quality capital, the first being very good in comb and earlobes; second also very good, with better-furnished tail, but scarcely so good in comb and earlobe. In Whites the first was perhaps the best we have seen this season. Sebrights good. Gold were first; second and third Silvers, white ground, but rather faint in lacing. The Booted class was a failure, only two pens (Whites) putting in an appearance. Any other Bantam.—First and second good Pile Game. *Turkeys*, *Geese*, and *Ducks* were all fairly represented, Mr. Walker here coming well to the front.

Pigeons were a nice collection. The *Pouters*.—First White; second Blue. *Carriers*.—First-and-cup grand Duns; second Black. *Tumblers* were small classes. Mr. Silvester's Almonds, first, were capital in colour and well broken. Mr. Horner's were also good. Long-faced, Black Mottle, and Black Beards were both good. *Foreign Owls*.—First very small Whites, well shown; second Blues. *English Owls*.—First Silvers, remarkably good; second Blues. *Jacobins*.—First and second Reds; both good, with little to choose between them. *Trumpeters*.—First a capital pair of the new type. *Turbits*.—First Yellow, second Blues; should have placed second first. *Pantails*.—The Newark birds first and second, clearly winning. *Barbs*.—Prize birds neat young Blacks. Mr. Harvey's well-known birds lost their chance, their being made-up in eyes. *Nuns* a fair class, the winners Black. *Dragoons*.—First a splendid pair of Yellows; second magnificent Blues. *Antwerps*.—Fair classes; but some of the best were too late, notably Mr. Wright. *Muggies*.—First Red, pretty; second Black, nice. *Runts* only one pen, large Silver. *Swallows*.—Both prizes to Reds. *Archangels*.—First capital in metallic lustre. Any other. —First, Spangled Ice; second, White-breasted Ice; a pretty pair of Isabels highly commended.

A Silver Cup, value Five Guineas, given by the Mayorese (Mrs. Mars-Jeul), for the best Pen of Pouter in the Exhibition—awarded to Mr. Thomas F. Ansell, of St. Helen's (Brahma Pouter).

Five Pounds, or Silver Plate of the same value, for the best Pen of Game Fowls was awarded to Tom Mason, Carus Lodge, Lancaster (Brown-breasted).

GAME.—Cock—1, D. Clayton, Manningham. 2, T. Mason. 3, E. Akroyd, Ecclehill, Leeds. *he*, W. Spencer, J. Fulton. *he*, F. Sales. *Black-breasted*—1, W. J. Pope, Biggleswade, Bedfordshire. 2, J. Nelson, Cockshaw, Hexham. 3, W. Spencer, Haworth. *he*, T. Hurst. *he*, E. Akroyd. *Brown-breasted*—1, T. Mason. 2, E. Payne, Embsay. 3, F. Sales, Crowle, Doncaster. *he*, J. W. Thornton. *Mrs. Walslaw*. 4, R. Smith, W. Bentley. *Duckwing*.—1, E. W. Wood, Worcester. 2, W. Spencer, Haworth. 3, F. Sales. *he*, T. Mason. J. Nelson. *Any other variety*.—1, F. Sales. 2 and 3, G. S. Thompson, Moorlands.

Four Pounds, or Silver Plate of the same value, for the best Pen of Fowls in the Pouter, Cochins, Chinas, and Brahmas Pouter classes—awarded to T. F. Ansell, St. Helen's (Dark Brahmas).

COCHINS.—1, R. Smith, J. Nelson, Maltan. 2, G. Poynder, Kirby Moor-side. 3, W. Harvey, Shethill. *he*, W. Moritt; F. Shaw; J. F. Mandle.

COCHINS—CHINA. *Chinaman* or *Buff*.—1, W. H. Crabtree, Levenshulme, Manchester. 2, J. White, Whitley, Netherton, Wakefield. 3, J. North, Huddersfield. *he*, R. C. Mughly. *Any other variety*.—1, T. Asplen, Chireb, Accrington. 2, H. Beldon, Gortstock, Bingley. 3, C. Carr, Wilsden, Bingley. *he*, J. White.

BRAHMA POUTER.—Dark.—1 and 2, T. F. Ansell. 3, J. Lyon, St. Helen's.

he, T. Crosby; R. C. Mitchell; W. Schofield. *Light*.—J. T. Hineka Humberstone, 5, T. Howitt, Masbrough, Rotherham. 3, H. Beldon.

Four Pounds, or Silver Plate of the same value, for the best of Fowls in the Spanish, Hondans, Cuckoo, and Poland Classes, was awarded to H. Beldon, for Spangled Poland.

SPANISH.—1, H. Wilkinson, Earby, near Skipton. 2, H. Beldon. 3, Pallister and Hawkins, Tockholes. *he*, G. Thirsk; G. Powell.

HONDANS.—1, H. Grant, Bradford. 2, W. Cuckack, jun., Littleport, near Ely.

3, T. Goodwill, Pickering. *he*, M. Hall; G. W. H. H. H. H.

CUCKOO.—1, W. Cuckack, jun., 2, W. H. Crabtree, 3, Miss G. A. Patchett, Southwell. *he*, Rev. E. Whank; Miss Patchett.

POLANDS.—*Gold or Silver-spangled*.—1 and 2, H. Beldon. 3, C. Walker, Boroughbridge. *he*, T. Dean.

Four Pounds, or Silver Plate of the same value, for the best Pen of Ham-burgh Fowls, was awarded to T. Dean, Keighley, for Golden-spangled Ham-burghs.

HAMBURGH.—*Black*.—1 and 3, H. Robinson, Baildon, Shipley. 2, H. Beldon, *he*, W. Sale; Popplewell Bros.

HAMBURGH.—*Golden-spangled*.—1 and 2, H. Beldon. 3, G. and J. Duckworth, Church, Lancashire. *he*, W. Driver; J. Smith; S. Gill. *Silver-spangled*.—1 and 2, H. Beldon. 3, Ashton & Booth, Mottram. *he*, E. Gill.

HAMBURGH.—*Any other variety*.—1, J. F. Watton, Rawtenstall, Manchester. 2, T. Cropper, Bacup. 3, H. Beldon.

SELLING CLASS.—1, W. White, Whitley, Netherton, near Wakefield. 2, H. Beldon. 3, E. Shaw, Oswestry.

Four Pounds, or Silver Plate of the same value, for the best Pen of Bantams, was awarded to W. F. Entwistle, Bradford, for Black-breasted Game.

GAME BANTAMS.—*Cock*.—1, G. Hall, Kendal. 2, J. Blamires, Great Horton, Bradford. 3, W. Baskerville, Manchester. *Black-breasted*.—1, W. F. Entwistle. 2, Mrs. Walslow, Batley. 3, G. Noble, Dewsbury. *Brown-breasted*.—1 and 2, F. Steel, Halifax. 3, W. F. Entwistle. *Cuckoo*.—1, W. F. Entwistle. 2, J. Mayo, Gloucester. 3, W. Cator, Kirby Lonsdale.

BANTAMS.—*Black*.—1, J. Earslow, Rotherham. 2, Milner & Beauland, Keighley. 3, W. H. Shackleton, Bradford. *White*.—1, H. Beldon. 2, T. Cropper, Bacup. 3, Rev. F. Tearle, Gazeley Vicarage. *Silvery* (Gold or Silver).—1, W. Richardson, York. 2 and 3, J. W. Lloyd, Kingston, Herefordshire. *Booted*.—2, H. Beldon. 3, W. Newberr, Newcastle. *Any other variety*.—1, G. Noble, Dewsbury. 2, S. Smith, Halifax. 3, F. Steel.

TURKEYS.—1, J. Walker, Rochdale. 2, F. G. S. Rawson, Thorpe, Halifax. 3, J. B. F. G. S. Rawson.

GESE.—1, J. White, Whitley, Netherton, Wakefield. 2, J. Walker, Rochdale. 3, F. G. S. Rawson.

DUCKS.—*Aylesbury*.—1, J. Walker. 2, J. Hedges, Aylesbury. 3, C. Holt, Rochdale. *Rouen*.—1 and 3, J. Newton, Suden, Leeds. 2, Walker. *Any other variety*.—1 and 3, W. Binos, Pudsey. 2, A. and W. H. Silvester, Market Hall, Sheffield.

SELLING CLASS.—1 and 3, C. Holt, Rochdale. 2, G. Pounder, Kirby Moorside.

PIGEONS.

Four Pounds, or Silver Plate of the same value, for the best Pen of Pigeons, was awarded to W. Ridley, Hexham, for Carriers.

POUTERS.—1, W. Ridley. 2, E. Horner, Harewood.

CARRIERS.—1, W. Ridley. 2, E. Horner.

TUMBLERS.—*Almonds*.—1, A. and W. H. Silvester. 2, E. Horner. *Any other variety*.—*Short-faced*.—1, E. Horner. 2, A. and W. H. Silvester. *Long-faced*.—1 and 2, J. Dyke, Hexham.

OWLS.—*English*.—1, W. Binos. 2, F. Steel. *Foreign*.—1, Miss F. Sennor, Leeds. 2, E. Horner.

JACOBS.—1, R. W. Richardson, Neaux Abbey, Beverley. 2, J. Thompson, Fecol, Bideley.

TROTTERS.—1, W. Harvey, Sheffield. 2, E. Horner.

TURBOTS.—1, E. Horner. 2, R. W. Richardson.

FANTAILS.—1 and 2, J. F. Liversidge, Newark, Notts.

BARBS.—1 and 2, J. Thresh, Bradford.

NUNS.—1, J. Cargill, York. 2, E. Horner.

DRAGONS.—1 and 2, R. Woods, Clipsestone Park.

ANTWRAPS.—*Short-faced*.—1, J. Mitchell, Keighley. 2, E. Horner, *Long-faced*.—1, J. Croxall, Wakefield. 2, W. Elms, Idle.

MAGPIES.—1, Miss F. Sennor. 2, J. T. Hineks.

RUNTS.—1, W. Harvey, Sheffield.

SWALLOW.—1, E. Horner. 2, W. Harvey.

ARCHANGELS.—1, Miss F. Sennor. 2, J. Aconley, Rosedale Abbey, Pickering.

ANY OTHER VARIETY.—1, Miss F. Sennor. 2, A. and W. H. Silvester.

SELLING CLASS.—1, J. Cargill, York. 2, A. W. Vren, Lowestoft.

RABBITS.

LOP-EARED.—Ears not tampered with, but in their natural state.—1, J. Wharton, Bramham. 2, F. S. Banks, Doughty Street, London.

SILVER-GRAY.—1, J. Hallas, Huddersfield. 2, S. Ball, Bradford.

HEMALAYAN.—1, S. Ball. 2, C. E. Mason, Rochdale.

ANGORA.—1, H. Smedley, Falford, York. 2, W. Whitworth, jun.

BELGIAN HARE.—1, J. Hallas. 2, W. Whitworth, jun.

DUTCH.—1, A. Lund, Monk Bar, York. 2, H. E. Gilbert, Rugby.

ANY OTHER VARIETY.—1, M. Marsland, Goole. 2, S. Ball.

SELLING CLASS.—1, J. Wharton. 2, G. C. Hutton, Bradford.

DORKING POULTRY SHOW.

This was held at the Public Hall, Dorking, December 10th.

This Show used to be the Dorking fauciers' Derby, and a prize here was formerly considered as great an honour as a cup elsewhere.

For the last two or three years, however, the Show has gone down a good deal in public favour owing to the Committee requiring that a cock and two hens should be sent in each pen,

but the judicious alteration of this rule bids fair to bring this good old Show again into notice. Only the first four classes are open to general competition, but among the birds exhibited

in these classes were to be found most of the celebrated winners of the day, and the competition this year was very keen. Mr. Leno again officiated as Judge, and it is evident from the favourable way in which his awards were received, that his knowledge of poultry extends beyond his favourite Sebright Bantams. The awards given below will speak for themselves.

DORKING.—*Coloured*.—Cap. F. Parlett, Chelmsford. 2, Rev. E. Bartrum, Berkhamstead. 3, Lord Turnour, Petworth. *he*, F. May, Reigate; J. Taylor, Dorking. *he*, H. Humphrey, Ashington; H. B. Young, Dorking. *Chickens*.—Cap. Rev. E. Bartrum. 2, T. C. Barnell, Micheldever. 3, J. Taylor, *he*, J. Clift, Dorking; G. Ellis, Betchworth; H. Humphrey; J. Taylor. *he*, Lord Turnour.

DORKING.—*Coloured*.—*Cockerel*.—1, J. Taylor. 2, J. Clift. *he*, G. Ellis. *Pullets*.—1, Marquis of Blandford, Holmwood. 2, Rev. E. Bartrum. *he*, G. Ellis. *he*, J. O. Hodges. *he*, M. Putney.

DORKING.—*Coloured*.—*Selling Class*.—1, Lord Turnour. 2, G. Ellis.

DORKING.—*Coloured*.—1, J. Hammond, Reigate. 2, G. Ellis. 3, F. May.

he, E. May, Dorking. *he*, F. May, Dorking. *Chickens*.—1, G. Ellis. 2, J. Clift. 3, J. Hammond. *he*, J. Morley, Newdigate. *he*, H. Mills, Dorking. *he*, E. May; J. H. Putney, Dorking.

DORKING.—*Coloured*.—*Cock*.—1, J. Tweed, Dorking. 2, J. Bargman, Dorking. 3, Ivery & Son, Dorking. *Cockerel*.—1, E. May. 2, H. H. Young. *he*, E. T. Bennett, Reigate. *he*, H. Mills.

DORKING.—*Coloured*.—*Hens*.—1, J. H. Putney. 2, H. Mills. *he*, G. Ellis. 3, Ivery & Son; J. H. Putney. *he*, T. Hood, Reigate. *Pullets*.—1 and 2, G. Ellis.

DORKING.—*White*.—1, G. Cubitt, Debby, Dorking. 2, J. C. Wilson, Hendley. *Chickens*.—1, G. Cubitt. 2, W. Chandler, Buckland, Beigate. 3, T. Knight.

he, G. Allen, Buckland, Reigate; T. Hoar. *he*, G. W. F. Watson.

DORKING.—*White*.—*Cock*.—Prize, G. Cubitt. *Hens or Pullets*.—Prize, W. Chandler. *he*, G. Cubitt; W. F. Watson, Henfold, Dorking.

DORKING.—*Blue Spangled*.—1, W. Griffin, Milton, Dorking. 2, Virgo & Son, Guildford. 3, H. H. Young. *Chickens*.—1, J. Wood, Westcott. 2, J. H. Putney. 3, R. Gamon, Westcott, Dorking.

DORKING.—*Blue Spangled*.—*Cock*.—Prize, J. H. Putney. *he*, Mrs. Mayo, Dorking. *he*, Mrs. Mayo; Virgo & Son; J. Wood. *Hens or Pullets*.—Prize, H. H. Young. *he*, Mrs. Mayo; J. H. Putney; R. Pittard, Dorking. *he*, Virgo & Son.

BRAMA.—Prize, J. Mew, Redhill. *he*, J. R. Corbett, Betchworth; Rev. J. P. Wright, Reigate. *he*, Miss E. Barclay, Rokehold, Dorking.

SPANISH.—Prize, F. May. *he*, P. Roffey, Reigate.

GAME.—Prize, Rev. J. Merriman, Cranleigh. *he*, J. Akehurst (2).

BANTAM.—Prize, G. Vigors, Besham. *he*, T. Randall, jun., Guildford (2); G. Vigors.

HAMBURGH.—*Golden or Silver*.—1, 2, and 3, Mrs. Trowbridge, Dorking.

DUCKS.—*White Aylesbury*.—1 and 2, J. B. Nichols, Holmwood Park. *Any other variety*.—1, J. R. Corbett. 2, J. D. Taylor, Reigate. *he*, J. R. Corbett; C. W. Haydon, Leatherhead; J. Wood; H. H. Young.

GESE.—1, J. C. Wilson. 2, W. F. Watson. 3, Rev. J. Merriman.

TURKEYS.—1, J. C. Wilson. 2, W. Phillips, Dorking.

CARMARTHENSHIRE AGRICULTURAL SOCIETY'S POULTRY SHOW.

This was held at Carmarthen on December 8th.

DORKINGS.—1, J. Buckley, Peofyfal. 2, J. McConnell, Ewys Harold, Hereford.

SPANISH.—1, E. Widwood, Worcester. 2, H. Feast. 3, R. Tracy, Pembroke.

BRAMA.—1, J. W. Watney, Dursley. 2, J. E. Williams, Chester.

he, F. H. Watkins, Hereford; F. L. Green, Oaklands, Carmarthen. *Light*.—1, J. Bloodworth, Cheltenham. 2, H. Feast. 3, E. Lawrence, Bridgend. *he*, J. Buckley; Mrs. Thomas, Moreb, Llandilo; W. H. Taylor (2); Mrs. H. Studdy, Ashdale, Haverfordwest (2); W. Harris, Bridgend.

COCHIN-CHINAS.—*Buff*.—1, J. Bloodworth. 2, E. Winwood. 3, H. Feast. *he*, — McConnell. *Any other colour*.—1, R. Jones, Neath. 2, H. Feast. 3, G. Morgan.

GAME.—*Black-breasted Red*.—1, E. S. Gossell, Stroud. 2, G. S. Cole, Llanelli. 3, J. P. James, Llwynmawr, Swansea. *he*, J. Buckley; O. John, Hafod, Swansea. W. L. Blake, Llandaff. *Any other variety*.—1, E. Pearson, Swansea. 2, D. Morgan. 3, H. Feast. *he*, W. Tillotson, Coates, Leeds; W. H. Taylor; J. F. Phillips, Swansea; S. Burford, Hafod, Swansea.

HAMBURGH.—*Golden-pencilled*.—1, J. F. Davies, Neath. 2, Mrs. Lewis, Llanelli. 3, H. Feast. *he*, J. Carr, Hafod, Swansea; W. H. Taylor. *Silver-pencilled*.—1 and 2, T. R. Mitchell. 3, H. Feast. *he*, J. Carr; G. Morgan; A. F. Fankler, Thrapston.

HAMBURGH.—*Golden-spangled*.—1, J. Carr. 2, T. R. Mitchell. 3, P. H. Stone, Gloucester. *he*, — Langdon, Johnstone. *Silver-spangled*.—1, T. R. Mitchell. 2, H. Feast. 3, J. Carr.

POLISH.—1, J. Bloodworth. 2, H. Feast. 3, — McConnell. *he*, J. J. Scott, Llanstephan.

ANY OTHER BREED OR CROSS.—1, J. G. H. Morris, Angeltown, Bridgend. 2, H. Feast. 3, P. Hanson. *he*, J. A. Timmins (2); W. Harris, Bridgend; T. W. Davies; F. L. Green (2).

BANTAMS.—1, G. Lewis, Swansea. 2, J. Bloodworth. 3, H. Feast. *he*, J. H. Watkins (2); E. C. Phillips, Brecon.

SELLING CLASS.—*Any breed*.—1, F. L. Green. *he*, W. H. Taylor. *he*, J. P. James; J. F. Davies.

SELLING CLASSES.—*Brahma or Coch*.—*Cockerel*.—1, A. T. Waters. *he*, F. L. Green (3). *Pullet*.—1, F. L. Green. *he*, F. L. Green; W. Green.

DUCKS.—*Aylesbury*.—1, J. Buckley. 2, E. M. Davies, Upland. 3, J. McConnell. *he*, Viscount Enllyn; J. F. Davies; Mrs. H. Studdy. *Any other variety*.—1, T. H. Taylor, Bridgend. 2, — Law, Froud. 3, T. D. Phillips. *he*, — Law; W. H. Taylor (2); Miss Jones, Glanrhyd; — Harries, Abercannau; W. Woodford, Cunnick, Brecon.

TURKEYS.—1, J. W. Morrison, Pembroke. 2, Viscount Enllyn. 3, J. P. James. *he*, J. Buckley; Mrs. H. Studdy; A. Jermin, Pembroke.

GESE.—*White*.—1, T. Rees, Pibwllwyd. 2, J. Fisher, Morfa, Pembrey. 3, T. Francis, Penygraig. *he*, J. Buckley. *Grey*.—1, Mrs. H. Studdy. 2 and 3, A. Jermin. *he*, 1, Anthony; J. Buckley; — Davies (2).

DORKINGS.—*To be competed for by Mechanics or Labourers*.—1, D. Lewis, Johnstown. 2, I. Jones. 3, J. Harries.

ANY OTHER BREED.—*To be competed for by Mechanics or Labourers*.—1, J. Harris (Light Brahma). 2, J. Thomas, B. Salt. 3, W. H. Taylor (Light Brahma). *he*, M. Davies (Dark Brahma); D. Morgan (Game); Mrs. E. Morgan (Cochin-China); J. Williams; T. Morgan.

DUCKS.—*To be competed for by Mechanics or Labourers*.—1, J. Jones, Daulan-fach. 2 and *he*, W. H. Taylor (Rouen and East Indian). 3, H. Lewis, Porth (Aylesbury).

PIGEONS.

CARRIERS OR DRAGONS.—1, S. D. Baddeley, Hereford (Carriers). 2, J. R. Watkins, Hereford (Carriers). *he*, S. D. Baddeley (Carriers); J. W. Morrison (Carriers); E. T. Houle, Carmarthen (Carriers).

POUTERS.—1, J. H. Watkins. 2, J. Sperry.

TUMBLERS.—1, W. G. Davies, Swansea. 2, J. E. Williams. *he*, T. F. Phelps, Ross.

FANTAILS.—1 and 2, E. T. Houle. *he*, J. H. Watkins.

BARB AND ANTS.—1, T. F. Phelps. 2, J. Sperry. *he*, E. T. Houle.

JACOBS.—1, T. F. Phelps. 2, E. T. Houle. *he*, J. H. Watkins; W. G. Davies.

ANY OTHER VARIETY.—1, E. T. Houle (Owls). 2, T. F. Phelps (Archangels). 3, W. G. Davies (Trompeters). *he*, J. W. Morrison (Owls); J. H. Watkins; W. G. Davies (Magpies).

RABBITS.—1, W. H. Taylor. 2, J. R. Lewis.

FAKENHAM SHOW HALL.—Having heard of complaints by exhibitors of poultry respecting the unsuitable buildings which some exhibitions are held in, I think it right to state, having acted as one of the Judges at the Fakenham Show for the past two years, that the Show Hall at Fakenham is well suited in every respect for an exhibition, as it stands on an open plain, is well lighted from the sides and roof, and is well ventilated,

and I may also add that the greatest care and attention is paid to the birds.—THOMAS LYON FELLOWS, *East Tuddenham Vicarage, Horningham, Norwich.*

PORTSMOUTH POULTRY SHOW.

"A wind came up out of the sea,
And said, 'Oh, mists, make room for me.'"

WE certainly were surprised to see two Shows advertised for Portsmouth within eight weeks of each other, especially as, from the advertisements, it would seem as if they were at cross-purposes, the one against the other. But it is not in our province to go into the reasons, whatever they may be, for holding the two Exhibitions within so short a space of time. We can only conclude that in spite of all the various shows clashing, as they did last week, the mists did obey Mr. Longfellow's wishes, and made way for a new wind in the shape of an extra Show at Portsmouth, where the quality was decidedly good. There were no less than twelve shows on last week, making the average of two per day; and with Mr. Hewitt laid up, as we are sorry to hear he is, the other Judges must have been well worked. We found Messrs. Leno and Howard judging here, and very well they did their work. We never saw at any show less to find fault with, or heard so little grumbling even among the disappointed ones. We feel sure the Judges must have taken prodigious pains at this Exhibition.

The Show was held in the Fifth Hants Royal Volunteer's Drill Hall, which was most tastefully decorated with banners and flags. The birds were well attended to by Drewitt, and we especially approved of the mixture of sharp gravel with a layer of chaff over it for the bottom of the pens over the boards. There were on exhibition also some new poultry baskets of all sizes, and very moderate in price. They are made by Mr. Curry, of 34, Exmouth Road, Southsea. They have locks and keys, and a kind of curtain which draws round the inside and must prevent all tail-pulling and meddling with birds at stations, &c., besides adding very much to convenience when penning, as the birds cannot possibly escape when the basket is opened till this upper curtain is undrawn.

Brahmas, especially Light, always muster well at Portsmouth. The two colours brought fifty-seven pens on this occasion, and they opened the catalogue. In old Light Brahms Mrs. Williamson won the cup. The hen in this pen was a great beauty, one of the winning Birmingham hens we think. The second-prize pen had a large cock and fair hen; and the third also good, but wanting more leg-feather. Fourth (Turner Turner), a good square cock. In Light Brahma chickens the first were a fine well-grown pair. The second had a beautiful-shaped cockerel; and the third were also very good, though the cockerel had an indifferent comb, or might have been higher. 21 (Williamson), had a good pullet, but badly washed and dried. In Dark Brahms the first were a good pair of old birds, the cock being massive and square, and the hen a good colour and well pencilled. The second contained a fine cockerel, but his companion was poor in pencilling and colour by the side of the first. The third had a good hen, but the cock with her had a bad comb. In the £5 Brahma Selling class, the first were nice Darks; second good Lights, the cockerel especially nice in shape; third very fair. Several good and cheap pens being highly commended. *Cochins* came next. Old Buffs had only one entry. They were a good pair. In Buff chickens the winners were all good and nicely shown. 59 (Hodson), contained a capital cockerel, but the pullet lacked leg-feather. In *Cochins* (Any other variety), Mr. Woodgate won first with a pair of old Whites. The cock very white indeed and large; the hen large and white, but a little narrow in the shoulders. Coloured *Dorkings* were a nice class. The cup went to good chickens, and the second to old birds. This latter pen, though larger than the cup chickens, were rather out of condition and white in ears, as, too, were the third, though otherwise a nice pen of chickens. We dislike white ears in the *Dorkings* as much or more than in *Cochins*. Mr. Burnell's pens were empty. In the Variety *Dorking* class good Cuckoos won. They were neat in shape and fine in comb, and of a good colour. Second went to very fine old Whites, the cock very good in colour; and the third to Silver-Greys, the cock rather small or else of most exquisite colour and shape. 76 (Pasley), fair Silver-Greys, but with white ears again. *Game* were not very first-class. In old Reds no first was awarded, and the second were not very smart. Pen 81 (Winwood), had a cock with a bad back. In Red chickens the winners were well placed. In the next class Duckwings won all the prizes. There was not much between the first and second, but the hen in latter pen had a bad comb. 93 (Winwood), had a cock with a deformed head, one side being higher than the other. *Spanish* were a fair class. The first were good young birds with fine faces. Second also, but not so good in comb. *Polands* only mustered three pens. Nice Silvers were first, and good White-crested Blacks second. 108 (Edwards), good Blacks. *French* were not so good as usual. Old Crêves won first, nothing very grand; and La Flèche

second. A very fair pen. 111 (Chilton), good Crêves. 113 (Bainton), large Houdans, but much too light. The three classes for *Hamburgs* only contained seventeen pens. The first, Golden-pencilled, were nice birds. Second also fair. We preferred the cockerel in pen 118 (Cresswell), though his ear-lobes were rather small, his comb and carriage were very good, but his pullet was poorly pencilled on the breast, and the markings too coarse, still we should have placed them second. In Silver-pencilled good chickens won first, no second being awarded. In *Spankles*, Silvers were first and second, and Gold third. In the first-prize pen the cock looked sickly about the head and seemed to need care and rest. The third contained a nice pullet. In the Variety class, very fine Malays won first, being good in plumage and colour. The second award we did not like much. They were Black *Hamburgs*, the cockerel very white in face, still there was not much else in the class to go to. 132 (Ridley), good Malays in colour, but round in back. *Game Bantams* were good. In the Red class, smart Black Reds won all the prizes, and in the next class, Duckwings were first and second. We quite agreed with the awards, but had we been Mr. Entwistle we would have mated these two pens differently, changing the cock of the one to the hens of the other, and *vice versa*. Third very fair Piles. In the Variety Bantam class fair Blacks won first; badly-booted Whites (rose combs), second; and Silver-laced third. 158 (Kitchen), heavily-booted Whites, but cock very ill with roup, and his eyes all closed.

Aylesbury Ducks only one pen, which were given a second, but not worth it. *Rouens* better, the winning birds being good. In the next class Blacks won everything, the winners being small and of nice colour.

Turkeys brought four capital pens.

The Selling classes were large and the winning birds well chosen. Pheasants had a class to themselves. Lady Heathcote won first with a most splendid pair of Silvers, shown in beautiful plumage and condition. Second nice Golden.

A SPLIT in the Cabinet is frequently followed by a dissolution of the Ministry. Some time back it was reported that some differences had arisen between Mr. Barnes, the Secretary, and some of his colleagues; and it was generally anticipated there would be no Show at Portsmouth this year; but quite the contrary, some of the old Committee have elected a new Secretary and announced their Show, while Mr. Barnes and a few friends, with Captain Warren at their head, have collected their forces in opposition, taken the field before them, and held their Show. We have no desire to go into the merits or demerits of the quarrel, and shall confine our remarks at present to the Show which has just been held, and which does not appear to have suffered in the least from the opposition, a very small prize schedule having brought together 604 entries. The result we have little doubt was produced in a great measure by the popularity of Mr. Barnes, who has always managed his shows in the most satisfactory manner to the exhibitors.

The *Brahma* classes were filled, Lights with a cup to compete for taking precedence in the prize list. In the class for old birds Mrs. Williamson won with a grand pair; Mr. Maynard, second, deserved their position; third, rather closely pressed by their next-door neighbour. Chickens, a very fine class (Mrs. Drummond) winning with a good pair, sound in colour, with good leg-feathering; second and third both good and well selected. The Darks were not so numerous as the Lights: first (Rev. J. Ellis), a fine pair, old birds; second (Lingwood), a fine cockerel, beautiful in colour and nest in comb; the hen was not so good, and not up to Mr. Lingwood's usual standard. Third-prize (Peake), a splendid hen matched with a very duck-shaped cock. Pen 32, highly commended (Captain Warren), was the next best in the class. The Brahma class limited to birds under the value of £5 secured twenty entries; first and third prize went to Darks, second to a very pretty pair of Lights. *Cochins* were poorly represented: in the old Buff class Mr. Lingwood walked over with a very fine pair of old birds, and in the Any other variety Mr. Woodgate's pen was unapproachable. *Dorkings* were better, Rev. G. Hodson and Mr. Lingwood running a tight race for the first honours. In the Any other variety Mr. Cresswell's Whites and Silver-Greys had to succumb to a very fine pair of Cuckoos.

The *Game* Classes were very poor in quality. *Spanish*, 100 (Brown), first contained a heavy-faced cockerel, well shown; hen moderate; the others in the class were far behind. *Polands*, a good pen of Silvers (Hinton), first; second a fine cock, but the hen was not so good as the one in the next pen. *French* class contained a few good pens, Mr. Stuart winning with Crêves. *Hamburgs*, two or three nice pens could be found in each class. Any other variety, a good pen of Malays (Hinton) were first; a pen of Black *Hamburgs* (Long) second; and a pair of *Andalusians* were third. *Game Bantams*, the class for Reds was a good one: first (Webster Adams), a smart cockerel, deserved a better hen; second (Mr. Anus), a neat pen; third not so good as we generally get from Mr. Entwistle. The next class, two pens of Duckwings (Entwistle) were first and second;

we thought we rather liked the second pen the best, but they were in a bad position for light. Any other variety Bantams, a moderate pair of Blacks were first; a pair of White-booted Bantams, not in the best condition, second; and a pair of Silver-laced, of rather faded colour, third.

Ducks, Aylesbury, one entry; and first prize justly withheld. Rouen contained a couple of fine pens; in the any other variety some good Blacks were to be found, Mr. Kellaway winning easily.

In the Selling classes a few good bargains could be obtained. A pair of White Cochins second, shown very dirty and in poor condition, were eagerly sought after; two or three pens of Dorkings were also well worth the attention of purchasers.

Pheasants were a magnificent lot, we rarely see so fine a collection.

The *Pigeon* classes were all well supported. The *Carrier* classes surprised us. Single cocks: the competition was very close between the first, second, and very highly commended pens. They were very equal. The first was a little the best in beak and colour; the second had a trifle the advantage in eye. The very highly commended was the best in style, and equal in other points except colour. The Judge had a very nice task to make his selection, and we quite agree with his awards. The hens were nearly all good, but the Judge did not have the same trouble in making his choice. The young class did not please us so much. The winner had some good points, but he was a little down in face; we did not like his beak, but we thought him the best. *Pouters* obtained only six entries—two fine pairs of Whites were first and second, and a pair of Reds third.

In *Barbs* Mr. Maynard won an easy first; and second, a pen of Whites, very highly commended (307), well deserved the notice for the splendid condition in which they were shown. *Dragoons*, a grand pair of Blues, sound in colour and good in style were first, Whites second; but here we think we preferred a pen of Mr. Graham's, highly commended. The *Antwerps* were very inferior; we found one good-looking pen, but discovered a malformation in the toe of one of the birds, which shut them out of the prize list; the next we fancied contained two cocks, so that the prizes were awarded to two very moderate pens of Mr. Vigors. *Tumblers*, *Fantails*, *Jacobins*, and the any variety, were all good classes: one or two birds of considerable merit were to be found in the Selling class.

The Show was well conducted, all the prize cards were placed on the pens before the time announced for opening, and the sale-office opened punctually to time; the birds appeared to have every attention from Mr. Smith, the Superintendent of the feeding department. We very much regret the paucity of the visitors on the first day, which was occasioned by the heavy rain, which fell without ceasing from the time of opening until we returned to town.

Mr. Leno judged the Light Brahmas, Dorkings, Game, Ham-burgh, Ducks, Geese, and Turkeys. Mr. Howard judged the Dark Brahmas, Cochins, Spanish, Polish, any variety, Bantams, and Selling class. Mr. Esquilant the Pigeons.

BRAHMAS.—*Light*.—Cap and 1, Mrs. Williamson, Queenborough Hall. 2, H. M. Maynard, Holmewood, Isle of Wight. 3, J. Bradshaw, Knowle, Cranleigh, hc, R. Bird, London; Mrs. T. Turner, Ringwood, Hants. c, Mrs. T. Turner. W. M. Graham, Dunstable. *Chickens*.—1, Mrs. Drummond, Bath. 2, Mrs. T. Turner. 3, F. Rayner, Shanklin, Isle of Wight. hc, Mrs. T. Turner; — Chris-man; — Bird, Fulham; — Long.

BRAHMAS.—*Dark*.—1, Rev. J. Ellis. 2, Horace Lingwood, 3, Rev. J. D. P. Keble, hc, Seward, jnr; Capt. Warren. c — Ogilvie, F. Turner.

BRAHMAS.—*Selling Class*.—1, Turner. 2, Rev. G. F. Hodson. 3, Capt. Warren. hc, Mrs. Williamson; H. M. Maynard (2); Capt. Warren. c, F. Rayner; R. Bird.

COCHINS.—*Buff or Cinnamon*.—1, Henry Lingwood, Barkham, Needham Market. *Chickens*.—1, 2, and 3, P. Ogilvie, Hambledon. Any other variety. —1, R. S. Woodgate, Penbury. 2, H. Gibson, Brokenhurst.

DORKINGS.—*Coloured*.—1 and Cap, Rev. G. F. Hodson, North Petherton. 2, Henry Lingwood. 3, J. Lee, Oxford. hc, T. Gates, West Grinstead; P. Ogilvie. Any other variety. —1, Izard, Wokingham. 2 and 3, O. E. Cresswell, Early Wood, Bagshot. hc, Miss Pasley, Fareham.

GAME.—*Black-breasted and other Reds*.—2, W. H. T. Stagg, Netheravon. *Chickens*.—1, W. H. T. Stagg. 2, Capt. Terry, Burghfield. 3, J. Bondey, Fareham. c, W. W. Pyne, South Lancing. Any other variety. —1, H. Gibson. 2, F. Bailey, Calne. 3, W. W. Pyne. c, Capt. Terry.

SPANISH.—1, H. Brown, Putney Heath. 2, — Smith, sen, Southsea.

POLANDS.—1, J. Hinton, Warrminster. 2, T. P. Edwards, Lymington.

FRENCH.—1, H. Sturt, Pewsey. 2, Rev. N. J. Ridley, Hollington. hc, Rev. G. Chilton, Littleton; H. Sturt. c, H. Banton, Southsea; Rev. J. Holloway, Elmsworth; — Greenfield.

HAMBURGS.—*Golden pencilled*.—1, T. Faulkner, jun., Merston, Isle of Wight. 2, H. M. Maynard. *Silver pencilled*.—1, E. Long, Bromley Common. *Silver or Golden spangled*.—1, J. Long, Bromley. 2, N. Barter, Plymouth. 3, E. Boswell, Ryde, Isle of Wight.

ANY OTHER VARIETY.—1, J. Hinton (Malays). 2, J. Long. 3, W. T. Hunt, Landport (Andalusians).

GAME BANTAMS.—*Black or Brown Reds*.—1, W. Adams, Ipswich. 2, T. W. Anns, Clapham. 3, W. F. Entwistle, Westfield, Wyke. Any other variety. —1 and 2, — Entwistle. 3, — Long.

BANTAMS.—*Any other variety*.—1, R. H. Ashton. 3, Rev. G. F. Hodson.

DUCKS.—*Aylesbury*.—2, H. D. Hoare, Bitterne. *Rouen*.—1, J. Harvey. 2, Rev. G. F. Hodson. Any other variety, including *Black*.—1, J. W. Kellaway, Isle of Wight. 2, Miss Pasley. hc, Mrs. A. Wilson, Hambledon; J. W. Kellaway. hc, Capt. F. G. Coleridge, Twyford.

TURKEYS.—1, Rev. N. J. Ridley. 2, Mrs. Hawker, Sennicotts. hc, Rev. N. J. Ridley; Mrs. Hawker.

SELLING CLASS.—*Cock and Hen or Duck and Drake*.—Price not to exceed 50s. —1, H. Brown (Spanish). 2, H. M. Maynard (Light Brahmas). 3, T. Gates (Coloured Dorking). hc, T. N. Whitehead, Bridgwater (White Cochins); G. Mores (Cock, New Shoreham (Dorking); Rev. N. J. Ridley (La Fische); G. Mores

(Coloured Dorking); J. Chisman, Newick (Light Brahmas); P. Ogilvie (Cochins); J. Geo (Rouen Ducks); H. T. Hoare (Aylesbury Ducks). c, Miss Pasley (Silver Dorkings); J. Bradshaw (Light Brahmas); T. P. Edwards (Polands); Capt. Warren, Emsworth (Light Brahmas).

SELLING CLASS.—*Hen or Pullet*.—Price not to exceed 10s. —1, T. Gates (Dorking). 2, Mrs. Dressing, Haverhill (Cochins). c, J. Heath, Southsea (Duckwing Game). hc, — Whitehead, Bridgewater (White Cochins); C. Cork (Dorking); Lady Heathcote, Hurley Park (Andalusians); Hon. and Rev. F. Dutton, Bibury Vicarage (Game); Mrs. N. Grenville, Bulley Court (Houlin); P. Ogilvie (Dorkings); T. P. Edwards (Polands); Capt. Warren. c, S. Newick, Hinton St. George; T. P. Ogilvie (Dark Brahmas); H. M. Maynard (Gold-pencilled Hamburgs).

SELLING CLASS.—*Cock or Cockerel*.—Price not to exceed 30s. —1, H. M. Maynard (Light Brahmas). 2, F. J. Saltmarsh, Chelmsford (Partridge Game). 3, Capt. Warren (Dark Brahmas). hc, Mrs. Wyld (White Cochins); S. Newick (Silver-spangled Hamburg); P. Ogilvie (Cochins); T. P. Edwards; — Smith, sen. (Andalusians). c, F. M. Whitehead (White Cochins); C. Cork (Dorking); C. E. Herrieff, Banbury (Spanish).

PHEASANTS.—1, Lady Heathcote. 2, J. Baily, jun., London. hc, J. Willis T. Simmons; J. Body, Withersham.

PIGEONS.

CARRIERS.—*Cock*.—1, H. M. Maynard. 2, J. H. Ivimey, Basingstoke. hc, S. Harding, Fareham. hc, H. M. Maynard; H. Jacob; W. Quickfall, Shanklin. *Hen*.—1, J. H. Ivimey. 2, S. Harding. hc, H. M. Maynard; R. Jacob; R. Cant, London; W. Quickfall; S. Harding. *Young Cock or Hen*.—Cap, 2, and 3, H. Jacob. hc, Mrs. Ladd, Calne; H. M. Maynard; H. Jacob; R. Cant (2); W. Quickfall.

PUTERS.—1, H. Pratt, Hampton in Arden. 2 and 1 hc, Mrs. Ladd. **BARBS**.—1 and 2, H. M. Maynard. hc, J. Baily, London.

DRAGONS.—1, Rev. G. F. Hodson. 2, H. Jacobs. hc, F. Graham, Birkenhead (2); D. Barnett, Brixton; W. H. Boys, Fareham; H. Yardley, Birmingham.

TUMBLERS.—1 and 2, J. Ford, London.

ANTWERPS.—1 and 2, Mrs. Vigor, Southfield.

FANTAILS.—1 and 2, H. M. Maynard. hc, F. W. Loversidge, Newark.

JACOBS.—1 and hc, H. M. Maynard. 2, C. Parsons, Dorchester.

ANY OTHER VARIETY.—1, W. Jacobs, Sandown (Archangels). 2, Rev. J. Ellis, Bracknell (Ice Pigeons). hc, W. H. Miller, Walsall; R. Wilkinson, Gulliford (Archangels); H. Yardley.

SELLING CLASS.—1, J. Ivimey. 2, H. M. Maynard (Black Carriers). hc, C. Cork (Carriers); C. Reed, Cambridge (Barbs); C. E. Gittins (Black Carriers); C. S. Herrieff, Banbury (English Game). c, J. Baily (2); H. M. Maynard (Black Carriers); H. Jacob (White Dragons); W. Jacobs (Black Carriers); S. Harding (Carriers); Mrs. Dressing (Jacobus and Black Carriers). c, J. Baily.

CANARIES.

NORWICH.—*Clear Yellow*.—1 and c, Athersuch & Sons, Coventry. 2, J. Adams. hc, W. Walter, Winchester; A. Palmer; J. Adams. hc, W. Walter. *Clear Buff*.—1 and c, W. Walter. 2, Athersuch & Son. hc, J. Adams (2). hc, A. Palmer.

NORWICH.—*Yellow Variegated*.—1, J. Adams, Coventry. 2 and hc, Athersuch and Son. hc, W. Walter; J. Adams. *Buff Variegated*.—1, A. Palmer, Norwich. 2, Athersuch & Son. hc, Athersuch & Son; J. Adams. hc, W. Walter; J. Adams. c, W. Walter.

BELGIANS.—*Clear Yellow*.—1 and 2, C. & D. Carver, Landport. hc, I. S. Byerley. hc, C. Davis, Landport. *Clear Buff*.—1, I. S. Byerley. 2 and hc, C. and D. Carver. *Evenly-marked or Variegated*.—1, Mrs. Dressing. 2, Messrs. Carver. hc, J. W. Savage, Gulliford. c, C. Davis.

LIZARDS.—*Gold or Silver-spangled*.—1, A. Palmer. 2 and hc, Athersuch and Son. c, E. W. Lulham, Brighton.

ANY OTHER VARIETY.—1, E. W. Lulham (Crested). 2 and hc, W. Barnes (Cinnamon). hc, Athersuch & Son. A. Palmer (Cinnamon). c, J. Adams.

MOLES.—1, T. Willsher. 2, E. W. Lulham. hc, W. H. Smith, Brighton. c, Fellingham & Wingfield.

CAVE OF SIX.—1, W. Walter. 2, Messrs. Carver. 3, C. Davis. hc, W. Barnes.

BRITISH OR FOREIGN BIRDS.

BULLFINCH.—1, Fellingham & Wingfield. 2, Mrs. Drummond. hc, E. S. Gibson; T. Willsher. c, H. Bovington, Frant; W. Barnes.

GOLDFINCH.—1, Mrs. Drummond. 2, Fellingham & Wingfield. 3, Miss Barnes. **SISKIN**, **REDFEEL**, or **LINNET**.—1 and hc, Miss E. Barnes. 2, Fellingham and Wingfield. c, T. Willsher.

SEVLAKE or **WOODLARK**.—1 and 2, A. J. Reed.

BLACKBIRD, **THROAT**, or **STARLING**.—1, G. Sparks, Emsworth. 2, Messrs. Carver. hc, Master Barnes.

ANY OTHER VARIETY OF BRITISH BIRDS.—1 and hc, W. Slowe (Nightingale). 2 and 3, Mrs. Watts (Blackcap Warbler and Whitethroat). hc, Fellingham and Wingfield (Yellowhammer); Mrs. Barnes (Tit).

BRITISH BIRDS.—*Cage of not less than eight or more than twelve distinct varieties*.—1, T. Willsher. 2, W. Barnes.

FOREIGN BIRDS.—*Cage of Six*.—1 and 2, Mrs. Drummond. hc, W. Walter.

ANY VARIETY OF FOREIGN BIRDS.—1, Capt. Gray (Macaw). 2, W. Walter (Australasian Parakeet). 3, Misses Jones (King Parrot). hc, J. Tracy (Australasian Lory). — Lewis (King Parrot). W. Wyatt (Cockatoo). hc, J. Tracy (Leadbeater Cockatoo).

SELLING CLASS FOR ANY VARIETY OF CAGE BIRD.—1 and 3, E. W. Lulham. (Norwich). 2, W. Walter (Cardinal). c, Misses Jones (Belgian).

RABBITS.

LENGTH OF EAR.—1, F. Loveband. 2, J. Cranch. hc, F. S. Banks, London. **BLACK-AND-WHITE** or **BLUE-AND-WHITE**.—1, J. Cranch. 2, Mrs. Shelley. c, E. Frost, Hackbridge.

GREY-AND-WHITE or **YELLOW-AND-WHITE**.—1, J. G. Quick. 2, F. S. Banks. hc, F. Loveband; E. Frost. hc, C. Palmer. c, F. Loveband.

SELF-COLOUR.—1, E. Frost. 2, J. G. Quick. hc, C. Palmer; — King. hc, C. Palmer.

ANY OTHER VARIETY, INCLUDING FOREIGN.—1, Miss Mortimer (Silver-Grey). 2, P. Ogilvie (Belgian). hc, P. A. Bossier, Penhurst (Himalaya). hc, J. A. Sanders (Belgian); T. W. Anns (Silver-Grey). c, J. Ellis (Silver-Grey); R. A. Bossier (Silver-Grey); F. Loveband (Silver-Grey).

SELLING CLASS.—1, T. Buckland (Fawn). 2, J. G. Quick. hc, P. Ogilvie (Belgian); Mrs. Dressing (Himalaya). hc, E. Frost (Sooty).

EAST KENT POULTRY SHOW.

If the sight of a brave man struggling with adversity was a sight for the immortal gods, surely the Committee of the Ashford Poultry Show deserves the sympathy of all poultry fauciers and exhibitors for a more fatal combination of untoward circumstances it is impossible to imagine. Desirous of increasing the goodness of their Show, they had this year materially increased the amount of their prizes, and were rewarded for their liberality by an entry of a hundred pens more than last year; but other things came in to make this a positive misfortune—they were disappointed about their pens, and at a late hour had to arrange for those belonging to the Yarmouth Society. The carriage of these to Ashford alone cost them £27; they are very excellent and strong ones, made of wood. The Show was open

for two days, and as Tuesday is market day, the second day is the one to which the Committee look to recoup themselves for their outlay; but last Tuesday was an incessant downpour of heavy rain, so that where they expected hundreds of visitors they did not get tens, and I very much fear that unless something unforeseen occurs the Ashford Poultry Show will be remembered amongst the things of the past.

As usual, a liberal prize list brought together a large collection of good birds. When Mr. Horace Lingwood exhibits Brahmas, and Mr. Henry Lingwood Dorkings, Col. Talbot Cochins, Mr. Quibell and Mr. Dring Houdans and Crèves, it will be at once seen that birds of no ordinary merit were exhibited, and, as usual, there were complaints about the judging. I feel convinced that if poultry shows are to stand their ground (and I doubt it) there must be some other plan adopted in arranging about the judging. No one can be a better judge of Dorkings and Brahmas than was one of the Judges at Ashford, but in French fowls it is quite clear he is a novice, and I believe would say so himself, and I must say the discontent exhibited at the judging in some of the classes was not unreasonable.

Of *Dorkings*, Coloured and Silver-Grey, there were sixty-seven entries. Mr. Lingwood's hens were very fine birds, and so were those of Mr. R. Cheesman, good specimens of Mrs. Arkwright's strain. His cockerel deserved, I think, a better position than he obtained. He is a fine coloured bird of Mrs. Arkwright's breed, perhaps not in quite as good condition as he might be. The White class was a good one; but were I to go in for Dorkings I should prefer the Silver-Greys, of which some fine birds were shown by Mr. F. Cheesman and the Rev. T. E. Cato, who pretty well swept the board. *Spanish* were a small class, only two pens being exhibited in cock-and-hen class. The *Cochin-China* class contained the splendid birds of Capt. Talbot, which carried all before them, beating Mr. Woodgate and others. Of *Brahmas* there were nearly forty entries, and here the grand Crystal Palace birds of Mr. Horace Lingwood carried off the first prizes in the Dark class, and Capt. Saville, of Wye, in the Light class. The *Game* classes (fifty-two entries) were very excellent. Mr. Brahm's (145) was a fine thoroughly well-shaped bird. The *Hamburghs* in their various classes were good. *Polands*, as everywhere, declining in numbers and quality. The judgment in *Orpingtons* was very odd, the best birds in the Show, those exhibited by Mr. Dring, and which have made their mark elsewhere, were utterly unnoticed. *Houdans* were better than ever we saw them at Ashford, birds which a year or two ago would have obtained prizes being quite passed by. Mr. W. O. Quibell obtained first with a very fine pair of birds, Mr. Lake being second with some birds bred in 1873, well crested and in good condition. Most of the pens in the chicken class contained good birds, Mr. Dring's being very fine, an indication that this popular breed is being maintained. *Bantams*, *Pigeons*, and other classes were well represented. The arrangements for feeding the birds, &c., were excellent, and the only drawback was the terrible downpour of rain, which from morning till night continued without a moment's cessation; and while it filled the springs of the neighbouring country, must have suggested thoughts of *draining* to the members of the Committee as they calculated receipt and expenditure.—D., Deal.

DORKINGS.—Coloured.—Hens.—1, Henry Lingwood, Barking, Needham Market. 2, R. Cheesman, Westwell, he, H. Mills, Dorking; G. W. Greenhill, Ashford. Cock.—1, G. W. Greenhill. 2, B. K. Thorpe, Charing. he, C. Ratcliffe, Womelsawold.

DORKINGS.—Coloured.—Pullets.—1, Henry Lingwood, 2, G. W. Greenhill. Cockerel.—1, E. Rice, Sandwich. 2, K. Cheesman. he, T. W. Stratford, West Malling; R. B. Curtes, Tenterden. he, E. Rice; R. B. Curtes (2). **DORKINGS.**—Silver-Grey.—Hens.—1, F. Cheesman, 2, Rev. T. E. Cato, Wye Vicarage. he, Rev. E. S. Tideman, Childerich Vicarage. Cock.—1, F. Cheesman. 2, J. B. Plumtree, Wingham.

DORKINGS.—Silver-Grey.—Pullets.—1, F. Cheesman, 2, Rev. T. E. Cato. Cockerel.—1, Rev. T. E. Cato. 2, F. Cheesman. he, C. Stauchiffe. **SPANISH.**—1, J. Francis, Hillenborough. 2, Mrs. Brassy, Battle. *Chickens.*—1, T. Boulter, Clerkenwell, London. 2 and he, J. Francis. he, G. K. Chilcott, Fairlawn.

COCHIN-CHINA.—1 and 2, Capt. G. F. Talbot, Maptrease. he, R. S. S. Woodgate, Pembury, Tunbridge Wells. he, Mrs. E. Pryor, Welwyn. *Chickens.*—1 and he, Capt. G. F. Talbot. 2, Capt. Coleridge, Twyford. c, H. Stephens, Tunbridge Wells.

BRAMA POOTRA.—Dark.—Cock.—1, Horace Lingwood, Creting, Needham Market. 2, J. Long, Bromley Common. he, F. Lake, Roldersham; Mrs. Brassy. *Chickens.*—1, Horace Lingwood, 2, J. Alberry, Reigate.

BRAMA POOTRA (Light).—1, P. Haines, Palgrave. 2, Capt. W. Saville, Wye. he, G. Dowker, Sloughmouth. he, Capt. G. F. Talbot; E. Mannoch, Woodrington. *Chickens.*—1, Capt. W. Saville. 2, P. Perry, Beckley. he, G. Dowker; P. Hauoos; J. Long. he, A. Smith, Godhurst.

GAME.—Black-breasted or other Reds.—1, F. Warde, West Farleigh. 2, M. Tonkin, Wittersham. *Chickens.*—1, G. Brahm, Ashford. 2, W. Foster, Deal. he, W. Foster; M. Tonkin.

GAME.—Any other variety.—1, J. Chittenden, Ashford. he, E. Rice. c, C. J. Plumtree. *Chickens.*—1, C. J. Plumtree. 2, E. Rice. he, J. Chittenden. c, W. Foster.

GAME.—Single Cock.—1, T. L. Elliott, Ashford. 2, W. Foster. he, D. Neame, Faversham; J. H. Bayler, Ashford; F. Warde.

HAMBURGH.—Gold-spangled.—1, W. K. Tickner, Ipswich. 2, J. Long. he, T. May, Wolverhampton. he, T. E. Jones, Wolverhampton. c, J. Long. *Silver-spangled.*—1, M. J. Long. 2, J. Akerman, Witney. he, Mrs. Kingsnorth, Ashford; c, J. Mosser, Reading; J. Long.

HAMBURGH.—Gold-pencilled.—1, W. K. Tickner. 2, A. W. Gardner, Canterbury. he, W. Rabson, Witleborough. c, J. Plumtree. he, H. R. Thompson, Colshill. c, J. Body, Wittersham; J. Fox, Shepherswell; J. Ware, Faversham. *Silver-pencilled.*—1, T. Hanson, Keighley. 2, B. Norton, Town Malling. he, J. Long; B. Norton.

GREY-COCK.—1, R. A. Boissier, Penhurst. 2, W. Green. he, T. G. Ledger, Folkestone; J. Brent, Woolwich.

POLISH.—1, J. Long. 2 and he, G. J. Lenny, Lewes.

HOUANS.—1, W. O. Quibell, Newark. 2, F. Lake. he, Mrs. Vallance, Sittingbourne. he, Rev. H. H. Dombrian, Westwell Vicarage; W. Dring, Faversham. *Chickens.*—1, W. Dring. 2, F. Lake. he, Rev. H. H. Dombrian; Mrs. Vallance; M. Sandford, Martin, Dover; Mrs. C. Hill, Fexhall; W. Dring.

GAME BANTAMS.—Black-breasted and other Reds.—1, W. Adams, Ipswich. 2, F. Sandford, Upper Norwood. he, W. S. Marsh, Deal; T. W. Anns, Clapham. *Any other variety.*—1, M. V. Sandford, Martin, Dover. 2, E. T. Hughes, Pluckley.

BANTAMS.—Any other variety.—1, H. H. Stickings, Ashford. 2, R. S. S. Woodgate. he, R. H. Ashton, Mottram. c, J. Ware, jun., Faversham.

ROUEN.—1, W. Dring. 2, F. Lake. he, Rev. H. H. Dombrian. *Rouen.*—1, C. Ratcliffe. 2, J. Harvey, jun., Framington. he, F. Cheesman, Ashford. he, H. Dowsett, Ashford; F. Warde; R. Stead, Tunbridge Wells.

GREY.—1, C. Bates, Mersham. 2, J. B. Plumtree. he, R. B. Curtes; W. H. Mold, Bethersten; Dowager Countess of Aylesford, Aylesford; J. Newport. *TURKEYS.*—1 and 2, F. Warde. he, C. S. Hardy, Canterbury; E. N. Hills; W. H. Mold; Dowager Countess of Aylesford. *Young.*—1, F. Warde. 2 and he, C. J. Plumtree. he, F. Warde; Rev. N. J. Ridley, Newbury.

ANY OTHER VARIETY.—1, J. Long. 2, R. S. S. Woodgate. he, Mrs. Brassy; J. Body; C. Judson, London. Capt. W. Saville.

SELLING CLASS.—Hens or Ducks.—1, R. B. Curtes. 2, F. Cheesman. 3, R. Cheesman. *Cock or Drake.*—1, H. White, Watlington. 2, T. G. Saltmarsh, Chelmsford. 3, J. Norwood.

PIGEONS.

CARRIERS.—1, 2, and he, M. H. Gill, Ramsgate.

POUTERS.—1, 2, and he, M. H. Gill.

TUMBLERS.—1 and 2, Mrs. Gill. he and c, F. Winer, Hadlow.

FANTAILS.—1 and 2, M. Sandford. he, G. W. Greenhill; J. F. Loversidge, Newark.

HOMO ANTERPES.—1, A. Bentley, Rickmansworth. 2, W. F. Marsh. he, E. Durrant. *Chickens.*—1, W. F. Marsh. he, W. F. Marsh; J. W. Barker, Brighton; E. F. Wilson.

ANY OTHER VARIETY.—1, J. T. Sparrow, London. 2, C. Heigham, Ipswich. he, E. Durrant; J. T. Theobald, Lower Tooting.

SELLING CLASS.—1, J. Bentley. 2, F. Winer. c, F. S. Barnard.

CANTERBURY POULTRY SHOW.

This was held on December 11th and 12th. We shall give a report next week.

DORKINGS.—Coloured.—1 and 3, R. Cheesman, Ashford. 2, C. Ratcliffe, Canterbury. *Cockerel.*—1 and 3, F. Rice, Sandwich. 2, R. Cheesman. he, R. Cheesman; C. Brown, Maidstone; W. J. Russell, South Norwood Hill. c, W. J. Russell. *Pullets.*—1, J. G. Hodges, Bagshot. 2, W. Sharp, Canterbury. 3, W. J. Russell. he, O. E. Cresswell, Bagshot; Mrs. Brassy, Battle. c, E. Rice.

DORKINGS.—Silver-Grey.—Cup, O. E. Cresswell. 2, E. C. Lee, Penshurst. 3, J. P. Plumtree. he, W. K. Jarvis, Petham. he, J. Scott, Elmstead; C. Ratcliffe; F. Cheesman. *Cockerel.*—1 and 3, F. Cheesman. 2, G. E. Cresswell. he, C. S. Hardy, Chatham. he, C. S. Hardy; C. Ratcliffe; J. Boulding, Petham. *Pullets.*—1, O. E. Cresswell. 2, F. Cheesman. 3, G. Court, Canterbury. he, G. Court. he, J. S. Wacher, Woodnesborough; Rev. T. E. Cato, Ashford (2). c, J. B. Plumtree; Major W. Plummer, Canterbury.

DORKINGS.—Any other variety.—1, O. E. Cresswell. 2, H. Allen, Wood Green. 3, L. G. W. Stratford. he, H. Allen; R. Noble, Canterbury. c, H. S. Thornton. **SPANISH.**—1, J. Francis, Tonbridge. 2, A. Rape, Battle. 3, W. T. Plommer, Broughton. *Chickens.*—1 and 2, J. Francis. 3, C. Howard, Peckham. he, W. T. Greensted.

COCHIN-CHINA.—Buff or Cinnamon.—1, W. White, Canterbury. 2 and 3, Withheld. *Chickens.*—Cup, Col. F. C. Hassard, Sheerness. 2, Mrs. Bentley, Upper Teddington. 3, Mrs. A. Christy, Edenbridge. he, W. White; E. Rice. c, W. White.

COCHIN-CHINA.—Any other variety.—1 and 2, Capt. G. F. Talbot, Edenbridge. 3, R. S. S. Woodgate. he, Mrs. A. Christy. *Chickens.*—1, R. S. S. Woodgate. 2 and c, Capt. G. F. Talbot. 3, T. W. Anns, Clapham.

BRAHMA POOTRA.—1 and 2, W. Jacob, Dover. 3, Mrs. Brassy, he, J. Harvey, jun., Thannington. *Chickens.*—1, J. Long, Sittingbourne; A. Rigg, London. c, J. B. White, Dartford; J. Long, Bromley Common. *Chickens.*—Cup, A. Rigg. 2, W. Jacob. 3, O. E. Cresswell. he, J. Harvey, jun. (2). c, Mrs. J. W. Perkins, Beckenham. *Hens.*—1, W. Jacob. 2, F. Lake. 3, J. Harvey, jun. he, J. Harvey, jun.; G. W. Pether; W. Jacob. c, R. Bowen.

BRAHMA POOTRA.—Light.—1, Mrs. Cheshire, Acton. 2 and 3, Capt. W. Saville, Wye. he, Capt. G. F. Talbot; R. Bird. c, Rev. F. T. Scott; G. Dowker. *Hens or Ducks.*—Cup, Capt. W. Saville. 2, J. Long. 3, G. W. Pether. he, R. Perry; R. Bird. (2). *Chickens.*—1, Mrs. Brassy. c, Lady Genden. *Capt. W. Saville.* F. Cleaver; H. Lee. *Chickens.*—Cup, G. W. Pether. 2, —Long. 3, Capt. W. Saville. he, F. Cleaver. he, G. W. Pether; Dr. G. A. Angier. **GAME.**—Black-breasted or other Reds.—Cup, J. Jenken, Eltham. 2 and 3, F. Warde, Maidstone. he, J. Jenken (2). *Chickens.*—1, W. Foster, Deal. 2 and 3, F. Warde. he, J. Jenken. c, W. Pyne.

GAME.—Any other variety.—1, W. Foster. 2, G. H. Fitz-Herbert, Sevenoaks. 3, C. J. Plumtree. *Chickens.*—1, B. Mollet, Braham. 2, E. Rice. 3, G. H. Fitz-Herbert. he, C. J. Plumtree (2). *Cock or Cockerel.*—1, J. Chittenden, Ashford. 2, E. Rice. 3, J. Jenken. he, F. Warde; T. L. Elliott; W. Foster. c, D. Neame.

HAMBURGH.—Gold-spangled.—Cup and 2, J. Long. 3, C. Brown. *Silver-spangled.*—1 and 2, J. Long. 3, J. K. Lawther, Tunbridge Wells. c, G. E. L. Lucas, Maidstone.

HAMBURGH.—Gold-pencilled.—1, J. Long. 2, O. E. Cresswell. 3, J. Fox, Shepherswell. he, H. White. —Ware; A. W. Gardner; C. J. Plumtree; G. J. Lenny. c, G. Dowker; C. J. Plumtree. *Silver-pencilled.*—1 and 2, B. Norton, Town Malling. 3 and he, J. Long.

POLISH.—1, J. Long. 2, J. Marles. 3, J. J. Lenny, Lewes.

HOUANS.—1, Mrs. Vallance, Sittingbourne. 2 and he, W. Dring, Faversham.

HOUANS.—*Chickens.*—Cup, M. Sandford. 2 and 3, Miss Neame, Faversham. he, —Morrison; R. B. Neame; Mrs. Vallance; W. S. Marsh. c, F. Lake.

CREVE-COEUR.—Cup and 2, W. Dring. 3, A. Christy.

GAME BANTAMS.—Black-breasted and other Reds.—Cup, T. W. Anns. 2 and 3, W. Boucher, Sittingbourne. he, W. G. Harrod, Canterbury; J. Bateman; T. W. Anns; C. Howard; W. S. Marsh; T. Breeds; L. K. Rice. c, G. Court; W. White. *Any other variety.*—1, H. Lowe, Bagshot. 2, Master M. V. Sandford, Dover. 3, R. J. Symonds, Stoke Newington, London. he, T. W. Anns.

BANTAMS.—Black or White Clean-legged.—Cup, H. H. Stickings, Ashford. 2, G. P. Ladd, Canterbury. 3, W. H. Willats, Canterbury. he, W. White; G. P. Ladd. c, W. H. Willats.

BANTAMS.—Any other variety.—Majolica Jug, E. C. Lee. 2, M. Martin, Canterbury. 3, W. S. Marsh. 4, W. R. Jarvis. he, R. S. S. Woodgate; M. Martin. c, —Dickens.

ANY OTHER VARIETY.—1, J. Long. 2, R. S. S. Woodgate. 3, Capt. W. Saville. he, B. Norton.

DUCKS.—Aylesbury.—1, W. Jacob. 2, C. S. Hardy. 3, F. Arter, Barham. he, Capt. G. F. Talbot; W. Jacob.

DUCKS.—Rouen.—1, J. Harvey, jun. 2, W. F. Harvey, Canterbury. 3, C. Ratcliffe. he, C. S. Hardy; J. Harvey, jun.; F. Arter. c, W. F. Harvey.

ANY OTHER VARIETY.—1, R. Wilkinson, Guildford. 2 and 3, W. Boucher.

TURKEYS.—Cup, F. Warde. 2, G. Dowker, Wingham. 3, C. S. Hardy. c,

Mrs. Brassey. *Poult.*—1, F. Warde. 2 and 3, C. J. Plumpton. *hc*, F. Warde; — *Ser* ton; Major W. Plummer.

GUINEA FOWLS.—1, R. S. S. Woodgate. 2, C. J. Plumpton. 3, O. E. Cresswell. PHEASANTS.—*Gold or Silver*—1 and 2, C. S. Hardy. *hc*, C. S. Hardy; Capt. Foley; — *Sawer*; J. Bailey, jun.

SELLING CLASS.—1, Col. F. C. Hassard. 2, W. Foster. 3, L. G. W. Stratford. *hc*, Rev. T. E. Gato; — *Lawther*, *hc*, J. Harvey, jun.; C. Hatchiff; — *Dickens*; — *Dowker*; — *Beard*; — *Petter*; R. Foster; R. Perry; — *Hodges*; — *Hayward*; — *Corn*; W. Foster; — *Smith*; — *Drum*.

SELLING CLASS.—*Hens*—1, W. Foster. 2, — *Petter*. 3, W. S. Marsh. *hc*, L. Stratford; Capt. Savile; — *Dring*; — *Petter*; — *Marsh*; Rev. A. Warde; Mrs. Bentley. *c*, G. Dowker; — *Perry*; H. C. Sutton.

SELLING CLASS.—*Any variety*—1, Capt. W. W. Knight, Ashford. 2, W. Dring. 3, — *Petter*. *hc*, — *Scrutton*; — *Dowker*; — *Hayward*; H. Page. *c*, A. Smith.

PIGEONS.

CARRIERS.—*Cock*—1 and 2, J. Baker, Kew Bridge. 3, Col. F. C. Hassard. *hc*, J. P. Broad; M. H. Gill; Col. F. C. Hassard; H. C. Sutton. *Hens*—1, Col. F. C. Hassard. 2, H. C. Sutton, Canterbury. 3, M. Martin.

CARRIERS.—1, D. Combe, New Cross. 2, M. H. Gill. 3, D. Neame. *hc*, M. H. Gill.

POUTERS.—*Cock*—1 and 2, J. Baker. 3, M. H. Gill, Ramsgate. *hc*, D. Combe; M. H. Gill (2). *Hens*—1, D. Combe. 2, J. Baker. 3, M. H. Gill. *hc*, D. Keall; M. Martin; J. Baker.

POUTERS.—1 and 2, M. H. Gill. 3, D. Combe. *hc*, J. Baker.

DRAGONS.—1, J. Baker. 2 and 3, L. Whitehead, Drury Lane, London. *hc*, M. Martin (3); F. R. G. Moore (2); J. Baker (3); D. Combe; J. Philpott.

TUMBLERS.—*Almonds*—1, M. H. Gill. 2, J. Ford, London. 3, J. Baker. *hc*, M. Martin; J. Baker. *Any other variety*—1 and 3, J. Baker. 2, J. Ford. *hc*, M. Martin; M. H. Gill (2); J. Baker.

RABBIT.—1 and 2, J. Baker. 3, M. Martin; *hc*, M. Martin; W. Mills. *c*, F. Winsor.

ANTWERPS.—*Long-faced*—1, T. Theobald, Lower Tooting. 2, M. Sandford, Dover. 3, Dr. F. Hulke, Deal. *hc*, M. Martin; H. C. Sutton. *Short-faced*—1, W. S. Marsh. 2, M. Martin. 3, D. Neame, Faversham. *hc*, W. Mills.

FANTAILS.—1, J. Baker. 2, O. E. Cresswell. 3, M. Martin.

OWLS.—*Cup and 2*, J. Baker. 3 and *hc*, Dr. Bowes, Herne Bay.

TRUMPETERS.—1 and 2, M. Martin. 3, R. W. Cooper, Rochester.

RUNTS.—1 and 2, M. Martin. 3, F. Minter, Wingham.

ANY OTHER VARIETY.—1, 3, 4, and Extra 4, M. Martin. 2, G. Hardy. *hc*, G. Hardy (3); Dr. Bowes; M. Martin; J. Baker. *hc*, G. Hardy; M. Martin (6); J. Baker.

SELLING CLASS.—1, 2, and 3, M. Martin. 4, — *Pointer*, Wood Green, London. *hc*, M. Martin (2); J. Bailey, jun.; J. Baker; D. Combe.

CANARIES.

NOBILITY.—*Clear Yellow*—1 and 3, J. Caplin, Canterbury. 2, R. J. Pope, Brighton. *hc*, J. Bateman; J. Caplin. *c*, J. Bateman. *Clear Buff*—1 and 2, J. Caplin. 3, R. J. Pope. *hc*, J. Bateman (2). *c*, J. Bateman; J. Caplin.

NORWICH.—*Variegated or Marked Yellow*—1, 2, and 3, J. Caplin. *hc*, J. Caplin (2); R. J. Pope. *c*, R. J. Pope; Miss E. Denne; J. Bateman. *Variegated or Marked Buff*—1, J. Caplin. 3, R. J. Pope. *hc*, J. Caplin. *c*, J. Bateman; J. Caplin.

NORWICH.—*Crested Yellow*—1, J. R. Pope. 2, J. Caplin. 3 and *c*, J. Bateman. *Clear Buff*—1, 2, and 3, J. Caplin. 3, J. Bateman. *c*, J. Bateman; J. R. Pope.

CINNAMON.—*Buff*—1, C. Torond. 2, 3, and *hc*, J. Caplin. *c*, J. Bateman; J. R. Pope.

JOSEPH.—1, C. Torond. 2 and 3, J. Caplin. *c*, J. Caplin; J. R. Pope (2).

LIZARD.—*Golden spangled*—1, 2, and 3, T. Fairbrass, Canterbury. *hc*, J. Bateman. *c*, Rev. V. Ward. *Silver spangled*—1, 2, 3, and *hc*, T. Fairbrass. *hc*, J. Bateman.

DR. KEN CAP.—1, 2, 3, and *c*, T. Fairbrass.

ANY OTHER VARIETY.—1, — *Caplin*. 2 and 3, Dr. G. Head, Margate. *c*, J. R. Pope.

CAGE OF SIX CANARIES.—1 and 3, T. Fairbrass. 2 and *hc*, J. Caplin. *hc*, Rev. V. Ward. *c*, W. C. Selkirk.

SELLING CLASS.—1, 3, and *hc*, J. Caplin. 2, C. Sendell, Canterbury. *c*, T. Anderson; C. W. Skinner.

AGES OF BENTON AND DOREN BIRDS.—1, Miss M. A. Piddack, Westbere. 2, E. Martin, Margate. *hc*, Lane, London. 3, Mr. Hunt, Canterbury. *hc*, Dr. G. Head; Mrs. Hunt; G. W. Gedney. *c*, J. Delahaye; S. Cook.

HYDE EXHIBITION OF POULTRY, &c.

This was held on the 11th and 12th inst.

DORKINGS.—1 and Cup, J. Walker, Rochdale. 2, J. Robinson, Garstang. *hc*, J. Stott, Rochdale.

COCHINS.—*Buff and Cinnamon*—1 and Cup, J. Walker. 2, B. P. Percival, Manchester. *hc*, T. E. Parley, Portbridge. 3, T. Stretch, Ormskirk. 2, T. Aspin, Church. *hc*, J. Hindle. *c*, A. Whitehead. *White*—1, R. P. Percival. 2, E. Gray, Hyde. *Black*—1, T. Aspin. 2, G. W. Hilbert, R.P.

BRAMHAS.—*Dark*—1, E. Ryder, Hyde. 2, A. Bamford, Manchester. *Light*—1, R. P. Percival. 2, W. Bullock, Jan. Prescot. *hc*, R. E. Horsfall, Liverpool. *c*, J. Fox.

GAME.—*Black-breasted Red*—1, G. Travis, Thurgoland. 2, E. Moss, Ashton-under-Lyne. *Brown-breasted Red*—1, J. Pedley, Nantwich. 2, J. Sang, Ingot. *hc*, W. Fern, Nantwich. *Any other variety*—1, G. Travis. 2, J. Pedley. *c*, E. Bell, Barton-on-Trent.

HAMBUROGS.—*Golden pencilled*—1, G. Bennett, Hyde. 2, N. Marlor, Manchester. *hc*, J. Robinson. *Silver pencilled*—1, K. W. Bracewell, Earby, Skipton. 2, J. Robinson.

HAMBUROGS.—*Golden-spangled*—1, J. Buckley, Ashton-under-Lyne. 2, J. Robinson. *hc*, T. Walker, sen., Denton. *c*, N. Marlor. *Silver-spangled*—1, J. Robinson. 2, Ashton & Booth, Mottram. *hc*, J. Vane, Poynton, Stockport; Ashton & Booth.

HAMBUROGS.—*Black*—1 and Cup, W. Mason, Denton. 2, J. Patrick, Stacksteads. *hc*, N. Marlor.

CAVE-CECROS.—1, C. H. Smith, Derby. 2, Mrs. Cross, Appleby Vicarage, Frigg.

HOUANS.—1, G. Berry, Little Heaton. 2, J. Pownall, Middlewich. *hc*, W. O. Quibell. *c*, J. E. Clayton.

FANTAILS.—1 and *hc*, P. Unsworth, Newton-le-Willows. 2, A. & W. H. Silvester, Sheffield.

ANY OTHER VARIETY EXCEPT BANTAMS.—1, T. Aspin. 2, J. C. Reeth, Chesterfield.

GAME BANTAMS.—*Black-breasted Red*—1, P. Unsworth. *Any other variety*—1, C. Crosshaw, Accrington. 2, A. Smith, Halifax. *hc*, W. Redhead; T. Barker. *c*, R. J. Hartley.

BANTAMS.—*Black or White*—1, A. Smith. 2, Milner & Beauland, Keeley. *Any other variety*—1, J. Walker. 2, A. A. Vander Meersch, Tooting, London. *c*, E. Wharm, Hyde.

DUCKS.—*Aylesbury*—1 and 2, J. Walker. *hc*, C. Holt, Rochdale. *c*, R. Gray. *Buen*—1, T. Wakefield, Newton-le-Willows. 2, T. G. Lancashire, Ashton-under-Lyne. *hc*, J. Brookwell, Wigan. *hc*, T. G. Lancashire; T. Wakefield. *Any other variety*—1, J. Walker. 2, G. Bennett, *hc*, J. Walker; R. H. Ashton. *c*, G. S. Sainsbury.

GESE.—1, J. Walker. 2, Mrs. W. J. Leigh, Stockport.

TEGERS.—1, K. Walker. 2, W. Hilbert, Godley.

SELLING CLASS.—*Cock*—1, E. Hargreaves, Rochdale. 2, J. & J. Battey,

Holmfirth. *hc*, W. Perrin; A. Bamford; Furness & Sadall; T. Aspin; G. Dawson. *c*, E. Rader; C. Smith. *Hens*—1, R. Welstenholme, Bury. 2, K. Berry. *c*, W. Warburton; W. Hey.

SELLING CLASS.—*Pair*—1, K. Dawson, Oldham. 2, W. Redhead, Backearrow. *hc*, A. Bamford; J. E. Clayton, Stockport. *c*, W. Henshall.

PIGEONS.

CARRIERS.—*Cock*—1, H. Yardley, Birmingham. 2 and 3, J. Smithers, Sheffield. *hc*, W. Henshall, Wilmoss. *Hens*—1, E. C. Stretch, Ormskirk. 2, J. Smithers. 3, W. Henshall. *hc*, S. Daniels, Stockport.

POUTERS.—*Cock*—1, W. J. Warhurst, Stalybridge. 2 and 3, D. M. Garside, Broughton, Merion. *hc*, S. Dronsfield, Oakham; J. Richmond. *Hens*—1 and 3, W. J. Warhurst. 2, S. Dronsfield.

TUMBLERS.—*Almonds*—1 and Cup, H. Yardley. 2 and 3, A. & W. H. Silvester. *hc*, W. Henshall. 1 and 2, W. Woodhouse, King's Lynn. 3, H. Yardley. *Any other variety*—1, J. Watts, Birmingham. 2, W. J. Warhurst. 3, A. & W. H. Silvester.

RUNTS.—1, E. C. Cooper, Newton-le-Willows. 2, A. A. Vander Meersch. 3, H. Yardley.

JACOBIANS.—1 and 2, A. A. Vander Meersch. 3, J. Richmond, Oswaldwhistle. *hc*, J. Richmond; A. A. Vander Meersch; W. Dugdale, Burnley.

TUNTS.—1, L. Allen, Southwark, London. 2, A. & W. H. Silvester. 3, W. T. Richardson, Leeds.

BAHNS.—1, J. C. Boothby, Stockport. 2, S. Dronsfield. 3 and *hc*, A. A. Vander Meersch.

FANTAILS.—1, W. J. Warhurst. 2, Q. Blum, Manchester. 3, J. F. Loversidge, Newark. *hc*, H. C. Bowman, Manchester (2); W. J. Warhurst.

DRAGONS.—*Blue*—1, W. Smith, Liverpool. 2, F. Graham, Birkenhead. 3, W. J. Pass, Manchester; R. Woods, Mansfield; J. Holland, Manchester. *Red or Yellow*—1 and 2, F. Graham. 3, J. Holland. *hc*, S. Dronsfield; R. Woods. *Any other variety*—1, A. A. Vander Meersch. 2, F. Graham. 3, J. Holland. *hc*, W. Smith.

ANTWERPS.—*Short-faced*—1 and 2, G. R. Goodfellow, Hyde. 3, H. Yardley. *hc*, R. Brierley, Bury; J. Wright. *Long-faced*—1, C. Hopwood, Rochdale. 2, R. Brierley. 3, F. C. Stretch. *hc*, F. Graham; J. Chadwick.

OWLS.—*English*—1 and Cup, R. Unsworth, Cheadle Hulme. 2, H. Verdon, Liverpool. 3, A. A. Vander Meersch. *hc*, W. H. Davenport, Radcliffe; S. L. Bellhouse, Manchester; J. Richmond. *Foreign*—1, L. Allen. 2, S. Dronsfield. 3, J. Smithers.

ANY OTHER VARIETY.—1 and 2, A. & W. H. Silvester. 2, A. A. Vander Meersch. *hc*, A. H. Holt, Manchester; J. Richmond (2); A. A. Vander Meersch; R. White, Manchester.

SELLING CLASS.—1, J. C. Boothby. 2, R. H. Ashton. 3, E. Marsfield, Stockport.

RABBITS.

SPANISH.—1 and Medal, R. Barrett, Manchester. 2, C. King, St. John's Wood, London. *hc*, R. Barrett (2); T. Schofield, Stalybridge; Miss Greenway, Over Darwin; J. Irving.

ANGORA.—1, J. T. H. Chappell, Rochdale. 2, C. G. Mason, Rochdale. *hc*, J. Taylor; S. Buckley.

HIMALAYAN.—1, C. G. Mason. 2, E. S. Smith, Boston.

SILVER-GREY.—1, W. Russell, Hull. 2, E. E. M. Rovers, Rochdale.

ANY OTHER VARIETY.—1, J. Irving, Blackburn. 2, G. P. & R. Hackett, Haverstock Hill, London. *hc*, J. Baron, jun.; T. Schofield, jun.; T. Haslam; J. Kershaw.

SELLING CLASS.—1, F. Purser, Bedford. 2, W. Welcome, Westhoughton. *hc*, C. King.

LOCAL COMPETITION ONLY.

SPANISH.—1, R. H. Ashton, Mottram-in-Longendale. 2, S. Gallimore, New.

GAME.—*Cock*—1, G. Sadgen, Ashton-under-Lyne. 2, W. Warburton, Hyde. *Hens*—1, J. J. Schofield, Stalybridge. 2, S. Fletcher, Hyde.

HAMBUROGS.—*Gold or Silver-spangled*—1, Ashton & Booth, Broadbottom, Mottram. 2, J. Mayers, Denton. *c*, J. Ludlam, Mottram. *Gold or Silver-pencilled*—1, G. Bennett, Hyde. 2, Ashton & Booth. *c*, J. Slater, Hyde; N. Marlor, Denton.

BRAMA FOOTRAS OR COCHIN-CHINAS.—1, E. Ryder, Hyde. 2, H. Bennett, Hyde.

BANTAMS.—1, P. C. Whitehead, Hyde. 2, R. H. Ashton.

ANY VARIETY EXCEPT BANTAMS.—1, J. Mayers, Denton. 2, E. Howard, Hyde. *c*, J. T. Fallows, Woodley, Stockport; L. Broadbent, Denton.

DUCKS.—1, B. Gray, Hyde. 2, W. Herald, Hyde. *c*, C. Buckley, Werneth.

PIGEONS.

CARRIERS.—*Cock*—1, S. E. Kettlewell, Ashton-under-Lyne. 2, F. Wild, Hyde. 3, J. Westwood, Stockport. *Hens*—1, J. Ainsworth, Hyde. 2, S. E. Kettlewell. 3, J. Slater, Hyde.

POUTERS.—1, S. Mather, Hyde. 2, J. H. Ratcliffe, Hyde.

FANTAILS.—1, W. J. Warhurst. 2, F. Godley, Hyde.

TUMBLERS.—1 and 2, J. Lawton, Stalybridge.

OWLS.—1, T. Slater, Hyde. 2, C. T. Mycock, Hyde.

ANTWERPS.—1, J. Ashton, Manchester. 2, B. Perrin, Godley. *hc*, Mrs. Hunt, Hyde.

ANY OTHER VARIETY.—1, T. Shepley, Glossop. 2, C. T. Mycock.

JUDGES.—*Poultry*: Rev. G. F. Hodgson and Mr. W. B. Tegetmeier. *Pigeons*: Mr. J. Percival. *Rabbits*: Mr. W. B. Tegetmeier.

DUBLIN POULTRY SHOW.

The annual winter Show took place in the Society's hall in Kildare Street. The gallery of this hall is an excellent place for such a purpose, the light good and equal, and the stationary pens well placed, and while in the hands of this model Society, under the superintendence of Mr. Corrigan (who, we would venture to say, cannot be excelled), the birds are well cared for and comfortable, the only drawback being that so far the Society has not seen fit to become responsible for the safe transition to and from the Show of the birds entered. The entry fees are too high at 6s. per pen for the prizes given, otherwise the Show would become a most popular one on this as well as the other side of the Channel. Unfortunately the Belfast Ornithological Society held its meeting at the same time, and two shows of such importance will not do well competing. We have the authority of those who know for saying this will not occur again.

After all, the entries in many of the classes were very good, the *Dorkings* proving, as usual in this country, very good; but these remarks refer more especially to the Silver-Greys, which were really very good and true to colour. Old *Spanish* good, but young only poor; while the *Light Brahmas* were but a moderate lot. Dark *Brahmas* seem to show the effects of the greatest attention both here and everywhere, both classes having

made great progress in Ireland, and there were some very grand birds in both classes. *Cochins* were good in both the old classes, but chickens were poor; there were some good Blacks. Strange to say, there were no entries for *Game*, and in *Hamburgs* the birds were poor, with the exception of the winners. *Polish* good, especially the White-crested Blacks. Some good cheap birds quickly changed hands in the Selling classes. *Turkeys* and *Aquatic Birds* are generally very fine here, and this was no exception to the rule; in fact, these were unusually good and large. *Bantams*, both *Game* and *Blacks*, were very good as regards the winners, the first in Blacks a good pair.

Pigeons were a small entry, and most of the prizes carried off by Mr. Seale; but with the exception of *Pouters* and *Turbits* they do not call for special remark.

DORINGS.—*Silver-Grey*.—1, S. Mowbray, Killeany, Mountrath. 2, Miss De Courcy Drevay, Newton Park, Co. Dublin; R. P. Williams, Glaslough, Clontarf, &c. G. N. Pardon, Lisnagar, Kilkenny. *Chickens*.—1 and 2, Miss A. M. Warburton, Rill, Stradane, Co. Kildare. *he*, R. P. Williams; Miss A. M. Warburton; J. F. Bomford, Drumlagan, Kilkenny. *c*, G. N. Pardon; W. Kerrigan, Whitefields, Phoenix Park; P. Marmion, Castleknock.

DORINGS.—*Other Coloured*.—1, P. Marmion. 2, S. Mowbray. *Chickens*.—1, J. Barlow, Castleknock. 2, W. Kerrigan.

SPANGLED.—1, R. P. Williams. *Chickens*.—1, W. G. Henry, Oaklands, Dublin. 2, R. P. Williams. *c*, Major Harvey, Wexford.

BRAMHANS.—*Light*.—1, L. Sullivan, Ballydoole, 2, Miss L. Stephens, Greenwood, Dublin. *he*, A. Field, Blackrock. *Chickens*.—1, A. Field. 2, Lord Massy, Connell. *he*, J. Forrest, Nulamore, Dublin.

BRAMHANS.—*Dark*.—1, Lord Massy. 2, Mrs. Taaffe, Foxborough, Thulsk. *he*, Lord Massy; Mrs. R. Sargent, Waterloo, Cahire. T. M. Hildard, Dublin; R. W. Boyle. *c*, Miss T. W. Webber, Hunnington, Portlinton; Miss H. M'Crath, Loughloher, Cahire. L. Stoney. *Chickens*.—1, Lord Massy. 2, Mrs. Taaffe; *he*, Miss A. M. Warburton. *he*, R. P. Williams; Miss A. M. Warburton; H. W. Boyle; Miss De Courcy Drevay. *c*, T. Mallinson, Geashill, King's County; S. Mowbray.

COCHINS.—*Buff and Cinnamon*.—*Chickens*.—1 and 2, M. Mahony, Baldoy, Dublin. *he*, Capt. St. Ivan, Loughlinstown.

COCHINS.—*Partridge and Brown*.—1, B. P. Williams. 2, M. Mahony. *Chickens*.—1 and 2, M. Mahony. 2, L. Stoney, Dublin.

COCHINS.—*Black*.—1, Mrs. Taaffe. 2, C. Teuch, Dublin. *Chickens*.—1, Mrs. Taaffe.

COCHINS.—*Any other colour*.—*Chickens*.—2, Mrs. Harvey, Wexford.

HAMBURGERS.—*Pencilled*.—1, S. Mowbray. *Chickens*.—1, W. J. Barlow. 2, S. Mowbray. *he*, C. Pressly, Chapelizod.

HAMBURGERS.—*Spangled*.—1, S. Mowbray. 2, L. Stoney. *Chickens*.—1, S. Mowbray. 2, L. Stoney.

POLISH.—*Gold or Silver*.—1, R. P. Williams. *Chickens*.—1, W. J. Barlow. 2 and 3, R. P. Williams.

WHITE-CRESTED BLACK.—1, Miss De Courcy Drevay. *Chickens*.—1, Miss De Courcy Drevay.

J. A. FLECH.—1, A. Field.

HODDANS.—1, E. Morrison, Parsonstown. 2, C. M'Glenn, Dublin. *Chickens*.—1, L. A. Beamish, Annamont, Co. Cork. 2, C. M'Glenn.

CREVE-COEURS.—1, T. M. Harvey, Wexford.

ANY OTHER VARIETY.—1, S. Mowbray (Black Hamburg). *Chickens*.—1, Mrs. T. W. Webber (Blue Andalusian). 2, S. Mowbray (Black Hamburg). *he*, T. France, Cullinstown, Dublin (Brown Leghorns).

SELLING CLASS.—1, Miss Stephens. 2, J. Barlow (Golden-pencilled Hamburg). 3, J. Holvey, Dublin (Spanish). *he*, Miss Stephens; Mrs. E. Green, Dublin (Spanish); Mrs. T. W. Webber (Dark Brahma); M. Mahony (Partridge Cochins); Mrs. Taaffe (Black Cochins). *he*, Miss Stephens; W. G. Henry; Miss A. W. Warburton; G. A. Perrin, Chantilly, Loughlinstown; Mrs. R. Sargent (Dark Brahmas); S. Mowbray; W. Kerrigan (Silver-Grey Dorings); M. Mahony (Buff Cochins); Major J. Harvey (White Cochins); R. W. Boyle (Dark Brahma). *c*, Major J. Harvey (Spanish); R. W. Boyle (Dark Brahma); Mrs. Taaffe (Dark Brahma).

SELLING CLASS—Single Cocks.—7, M. Mahony (Buff Cochins). 3, J. Barlow (Coloured Dorking). *he*, Lord Massy (Dark Dorking). *he*, Miss A. M. Warburton (Silver Grey Dorking); S. Mowbray (Dorking); Mrs. Taaffe (Dark Brahma); W. G. Henry (Spanish). *c*, Miss L. Stephens; R. P. Williams.

THREE FAT FOWLS.—1, S. Mowbray. 2, Miss E. Hildard, Dublin. *he*, R. P. Williams. *c*, L. Stoney.

BANTAMS.—*Game*.—1, W. Moyley. 2, G. Knaggs. *Any other variety*.—1 and 2, Miss Stephens.

TURKEYS.—1, Mrs. T. W. Webber. 2, S. Mowbray. *he*, Miss H. M'Crath; Miss L. King. *Young*.—1, S. Mowbray. 2, Miss H. M'Crath. *he*, C. H. Peacocke, Belmont. Co. Wexford; J. F. Bomford, Drumlagan, Kilkenny. *Single Cock*.—1, J. F. Bomford.

GESE.—*Emulsion*.—1 and 2, S. Mowbray. *Toulouse*.—1, R. P. Williams. *he*, Miss L. Booth, Ballydoole, Castleknock; S. Mowbray. *Any other variety*.—1, T. A. Bond, Londonderry. 2, R. P. Williams. *he*, R. P. Williams; T. A. Bond.

J. F. Bomford. Young.—1, S. Mowbray. 2 and 3, G. A. Perrin. *Two Fat Geese*.—1, S. Mowbray.

DUCKS.—*Rouen*.—1, Mrs. Taaffe. 2, Miss Stephens. *he*, R. P. Williams (2); M. Mahony; R. W. Boyle. *Aylesbury*.—1, Miss A. Warburton. 2, G. A. Perrin. *he*, J. F. Bomford. *he*, R. P. Williams; Lord Massy; Mrs. T. W. Webber; C. H. Peacocke; S. Mowbray.

SELLING CLASS—Ducks.—1, Lord Massy. 2 and 3, S. Mowbray. *he*, R. P. Williams; Lord Massy (2); J. F. Bomford.

FANCY, ORNAMENTAL, OR WATERFOWL.—1 and 2, R. P. Williams.

PIGEONS.

POUTERS.—1, E. A. Seale, Kilgobbin, Dublin. 2 and 3, F. W. Zurichorst, Bellevue, Donnybrook. *he*, L. Stoney (2).

TUMBLERS.—1 and 2, E. A. Seale. *he*, W. F. Forrest.

BAIDS.—1, E. A. Seale.

FANTAILS.—1 and 2, E. A. Seale. *he*, W. G. Henry.

JACOBIANS.—1 and 2, E. A. Seale.

TURBITS.—1, W. G. Henry. 2 and 3, E. A. Seale.

TRUMPETERS.—1, E. A. Seale. 2, F. W. Zurichorst.

OWLS.—1 and 2, W. G. Henry. *he*, G. W. Painter, Hollywood, Dublin.

HOMING.—F. W. Zurichorst. 2, E. A. Seale.

DRAGONS.—1 and 2, W. G. Henry.

FENS.—1 and 2, E. A. Seale.

ANY OTHER VARIETY.—1, W. G. Henry (Helms). 2, E. A. Seale (Hunts).

MAGPIES.—1 and 2, E. A. Seale. *he*, W. G. Henry. *c*, F. W. Zurichorst.

SELLING CLASS.—1 and 2, E. A. Seale. *he*, W. G. Henry. *c*, F. W. Zurichorst (2); F. G. Holvey.

JUDGES.—Messrs. Hutton, Padsey, near Leeds; Staunton, Sandymount, Dublin; and Merry, Blessington.

finally settled and confirmed. Prizes to the amount of £2096 are offered by the Society in the several departments of stock, poultry, &c., and the list will be augmented by the offer of £235 by the Croydon Local Committee and the Committee of the East Surrey Agricultural Society, in champion prizes for superior excellence, irrespective of class. In the poultry classes entries must be on or before the 4th of May.

BURSLEM POULTRY SHOW.

THE second annual Show of Dogs, Poultry, Pigeons, Rabbits, and Birds was held in the covered market and Town Hall, on Wednesday and Thursday, December 9th and 10th. There were about 711 entries in the entire Show, made-up as follows:—Dogs 215, poultry 292, Pigeons 133, Canaries 56, and Rabbits 16. The Exhibition was a fine one, and was carried-out as well as the unfortunate mistake of the non-arrival of the pens for a portion of the poultry and Pigeons would permit, in a satisfactory manner.

The classes for *Game* fowls were the heaviest filled, and contained many fine birds. There were a few good pens of Gold and Silver-spangled and Pencilled *Hamburgs*. There were several good pens of *Bantams*. The Selling class contained many good birds. There were nine pens of *Rouen Ducks*, eleven of *White Aylesbury*, thirteen of any other variety, eleven pens of *Geese*, six of *Turkeys*, and three local classes, the first of which contained twenty pens of various breeds, the second for *Hamburgs* with eight entries, and the third class for *Bantams* of any variety, in which we noticed several showy pens in the twenty-one entries.

The *Pigeons* looked tolerably well throughout the classes, there being several first-class *Carriers*, *Dragoons*, *Pouters*, *Tumblers*, *Fantails*, *Jacobins*, and other breeds.

Rabbits were not very numerous, but the quality in some instances was good.

The *Canary* classes were moderate in some instances. In the two classes of *Belgians* the first-prize birds in each were worth breeding with. The *Norwich*, *Lizard*, *Mules*, and *Brown Linnets* and *Goldfinch* classes were very good, particularly as to quality. One of the *Goldfinch* and *Canary Mules* was disqualified through having been trimmed in the tail. It belonged to Mr. John Caskiment, Newcastle, Staffordshire.

SPANISH.—1, H. Wilkinson, Earby, Skipton. 2, J. Mansell, Longton. 3, T. Roughton, Burslem.

DORINGS.—*Coloured*.—1, J. Walker, Spring Mount, Rochdale. 2, J. Stott, Healey, Rochdale. 3, W. Mirfitt, Goole. *Any other variety*.—1, W. Mirfitt. 2, L. Wren, Lowestoft. 3, W. Rowe, jun., Newark.

COCHINS.—*Cinnamon and Buff*.—1, J. Walker. 2, H. Goodfellow, Macclesfield, Newcastle. 3, W. H. Crave, Etwall. *Any other variety*.—1, T. Stretch, Ormskirk. 2, C. Wils, n. Elton. 3, J. Gunn, Coalville.

BRAMHANS.—*Dark*.—1, J. Pownell, Middleswich. 2, T. F. Ansell, Cowley Mount, St. Helens. 3, C. Coppack, Chester. *he*, Messrs. Bridgewater & Yoxall, Wednesbury; W. Gadin, Market Drayton. *c*, — Bridgewater & Yoxall; Hollbrook & Knowles, Derby. *Light*.—1, J. Steele, Leek. 2, W. J. Storer, Penkridge. 3, C. Wilson.

TOLANS.—*Any variety*.—1, G. W. Boothby. 2, Mrs. Pover, Burslem.

FRENCH.—*Any variety*.—1, W. H. Crew. 2, J. Adderley, Whetley Rocks, Leek. 3, H. Slater, Stoke-on-Trent.

GAME.—*Black-headed Red-Cock*.—1, W. Sowerbutts, Nantwich. 2, J. Platt. 3, Duke of Sutherland, Stoke-on-Trent. *c*, E. H. Wood, Lutterworth (2); G. Bagwall, Draycott, Stoke-on-Trent. *hen*.—1, G. Bagwall. 2 and 3, R. J. Pratt, Charlbury. 3, Duke of Sutherland. *he*, E. H. Wood.

GAME.—*Brown Red-Cock*.—1, G. C. Barnett, Birkenhead. 2, J. Platt, Winsford. 3, J. Murray, Nantwich. *he*, R. Ashley, Nantwich; T. Sargeant, c. G. F. Ward, Rensbury, Nantwich. *hen*.—1, G. C. Barnett. 2, R. Ashley. 3, G. F. Ward. *he*, J. Platt, c. Duke of Sutherland.

GAME.—*Any variety*.—1, Duke of Sutherland. 2, S. J. Ratcliffe, Burton-on-Trent. 3, E. Bell, Burton-on-Trent. *he*, G. F. Ward.

HAMBURGERS.—*Black*.—1, Duke of Sutherland. 2 and 3, Rev. W. Serjeantson.

HAMBURGERS.—*Golden-spangled*.—1 and 3, Duke of Sutherland. 2, J. Robinson, Vale House, Garstang. *Silver-spangled*.—1 and 3, Duke of Sutherland. 2, J. Robinson.

HAMBURGERS.—*Golden-pencilled*.—1, Duke of Sutherland. 2, J. H. Booth. 3, S. W. Hildard, Whitby. *Silver-pencilled*.—1, Duke of Sutherland. 2, R. W. Bracewell, Farby. 3, J. Robinson.

ANY VARIETY.—1, J. S. Routh, Chesterfield. 2, R. Loit, Woodmansey. 3, R. A. Botsmer, Penrith, Trent.

BANTAMS.—*Black-breasted Red*.—1, W. Baskerville, Manchester. 2, E. Bell. 3, Schumacher & Daft, Southwell. *c*, G. Manley, Luton Sands, Nottingham.

GAME BANTAMS.—1, E. Maitland, Hanley. 2, R. Smith, Southwell. 3, Schumacher & Daft.

BANTAMS.—*Dark or White Clean-legged*.—1, L. Poinson, Knypersley. 2, J. Walker. 3, S. Capham, Kington.

BANTAMS.—*Any other variety except Game*.—1, M. Leno, Markyate Street, Dunstable. 2, J. Walker. 3, Mrs. J. Wotton, Mapperley. *he*, Hollbrook and Knowles; H. B. Smith, Broughton.

SELLING CLASS.—*Any variety*.—1, S. L. Edwards, Tarporey. 2, W. J. Storer. Extra 2, G. Fower, jun., Birmingham. 3, W. H. Crew. *he*, Duke of Sutherland. *he*, E. Pate, n. Wolverhampton; J. Pownell (2); P. Ashley; J. Walker; J. S. Routh; Duke of Sutherland; W. Sowerbutts; J. W. Vandrey, Congleton; R. Flower, jun.; W. Gadin, jun.

DUCKS.—*Rouen*.—1, G. W. Bell, Stone. 2, J. Forsyth, Stoke-on-Trent. 3, T. H. Adams, n. M. Maskery, Leek. *Aylesbury*.—1 and 2, J. Walker. 3, S. L. Edwards. *he*, R. Beckett, Hestford. *Any other variety*.—1 and 2, J. Walker. 3, M. Leno. *he*, M. Leno; H. B. Smith (2). *c*, Duke of Sutherland.

GESE.—*Any variety*.—1, J. Walker. 2, E. Sueli. 3, T. Mills, Seacombe. *he*, R. Beckett.

TURKEYS.—*Any variety*.—1 and 2, J. Walker. 3, Mrs. H. J. Bailey, Tenbury. *he*, W. Wykes, Winkley.

DUCKS.—*Any variety*.—1 and 2, J. Walker. 3, Rev. W. Serjeantson. *he*, T. Milla.

LOCAL CLASSES.

SPANISH.—*Black*.—1, G. H. Briggs, Preston. *Any other colour*.—1, E. H. Briggs. 2, H. Mace, Stoke-on-Trent. 3, W. Wain. *c*, G. Perry, Hanley; W. Griffiths, Newcastle. *c*, J. Walker (2); E. Heath.

HAMBURGERS.—*Any variety*.—1, Mrs. Flynn, Church Lawton. 2, 3, and 3, J. Boulton. *c*, J. Simpson, Tunstall.

BATH AND WEST OF ENGLAND AND SOUTHERN COUNTIES AGRICULTURAL SOCIETY.—At the usual monthly meeting held at the Grand Hotel, Bristol, for the meeting at Croydon, 1875, which will commence on Monday, May 31st, the prize list was

BANTAMS.—Any variety.—1, — Tomkinson, Smalithorne. 2, W. Wainscoat. Extra 2, A. Heath. 3, G. E. Hollis, Leeds.

PIGEONS.

CARRIERS.—Black.—Cock.—1, H. Yardley, Market Hall, Birmingham. 2, E. Horner, Harewood, Leeds. Hen.—1, H. Yardley. Any other colour.—Cock.—1 and 2, E. Horner. Hen.—1, E. Horner. 2, H. Yardley.

PUTTERS.—Cock.—1 and 2, H. Pratt, Hampton-in-Arden. 2, E. Horner. Hen.—1, E. Pratt. 2, E. Horner.

TUMBLERS.—Almond.—1, H. Yardley. 2, E. Horner. Any other variety.—1, H. Yardley. 2 and 3, G. South. Long faced, Bulldog, or Beards.—2, M. M. Scott, Stoke-on-Trent.

FANTS.—1, H. Yardley.

JARVIS.—1 and 2, J. Thomson, Bingley. he, G. South. c, J. Shurley, Blackburn.

BABES.—1, E. Horner. 2, H. Yardley.

FANTAILS.—1, Rev. W. Serjeantson. 2 and 3, H. Yardley. he and c, J. S. Lovelridge, Newark.

DRAGONS.—Blue.—1, H. Yardley. 2, W. Sifton, Blackburn. whe, J. Shurley, he, A. Boote, Crewes. c, S. Cliff, Nantwich. Any other colour.—1, R. W. Mansfield. 2, E. Graham, Birkenhead. he, G. Smith; H. Yardley. c, E. Lee, Nantwich.

ANTWERPS.—1 and 2, W. Gapon, Chester. he and c, J. Shurley.

OWLS.—English.—1, J. Walker, Burslem. 2, E. Horner. c, W. Tomkinson, Smalithorne.

ANY VARIETY.—1, H. Yardley. 2, E. Horner. c, G. Machin, Longport.

SELLING CLASS.—1 and 2, J. Sheldon, Congleton. 2, F. Wild, Hyde. he, J. Walker, J. Sheldon. c, J. Early, jun., Loundon; E. Yardley.

TUMBLERS.—1, T. Knibb. 2 and 3, R. White, Manchester.

CARRIERS.—1 and 2, J. Walker. c, E. H. Heath, Stoke-on-Trent.

DRAGONS.—1, he, and c, A. Bunt. 2, J. Walker.

ANY OTHER VARIETY.—1, A. J. Ridgway, Hanley. 2 and 3, W. Tomkinson.

CAGE BIRDS.

BELGIAN.—Clear Yellow.—1, J. Shatwell, Macclesfield. 2, Withheld. Clear Buff.—1, J. Shatwell. 2, Withheld. Crested.—1, C. Johnson, Macclesfield. 2 and 3, J. Shatwell.

NORWICH.—Clear Yellow.—1, Orme & Ashley, Derby. 2, J. Hulme & Son. Clear Buff.—1, Orme & Ashley. 2, Clemmison & Ellerton, Darlington. whe, W. Cater, Leeds. Variegated.—1, J. Hulme & Son, Leeds.

LIZARD.—Jonque.—1 and 2, Clemmison & Ellerton. he, C. Johnson; S. Bunting, Derby. c, J. Shatwell. Grey.—1, S. Bunting. 2, C. Johnson. c, J. Shatwell.

FIVE MULES.—Yellow or Buff.—1 and 2, S. Bunting. 2, R. Hawman, Middlesbrough. Extra 2, J. Brough, Longport.

GOLDFINCH.—1, R. Hawman. 2, S. Bunting. he, J. Hulme & Son. BROWN LINNET.—Moulded in the House.—1 and 2, S. Bunting. Extra 2, J. Simmett, Derby. he, T. Lowades, Shelton.

LOCAL CLASSES.—Yellow Mule.—1 and 2, H. J. Unwin, Hanley. Buff Mule.—1 and 2, J. Brough. c, J. W. Nicklin, Colridge.

RABBITS.—Lop eared.—1, T. Davis, Southwell. 2, T. Schofield, jun., Cheetnam. he, J. W. Brooks, Leeds; H. Kendrick, Walsall. c, J. Hunter. Any variety irrespective of length of ears or weight.—1, A. Dixon, Lower Tooling. 2, P. Badham, Middlesham. he, R. A. Boisier.

The Judges were—Poultry: Mr. W. Cannan; Pigeons: Mr. G. C. Holt, and Mr. H. Allsop; Birds: Mr. G. J. Barnesby.

MONTROSE ORNITHOLOGICAL ASSOCIATION'S SHOW.

This Show was held in the New Market Buildings, Montrose, on the 4th and 5th of December, with the following awards were made:—

DOCKINGS.—1, G. Cuthill, Meikle. 2, Mrs. G. Armistead, Inchmartine. 3, P. Symon, Erris. he, J. Barron, Brechin (2).
SPANISH.—1, Cup, and c, Mrs. W. Steven, Montrose. 2, J. Norval, Alloa. 3, W. Sandeman, Kerriemuir. he, J. Soutar, Carnoustie.
COCHINS.—Cup, A. Burnett, Montrose. 1, Mrs. W. Steven. 2, W. M. J. Paton, Broughty Ferry. 3, Mrs. G. Armistead. he, Mrs. W. Steven; A. Burnett. c, Mrs. G. Armistead; Mrs. W. Steven.

BRAHMAS.—1 and Cup, A. Burnett. 2, D. Gellatly, Temple Hall, Meikle. 3, J. Smart. he, Mrs. W. Steven. c, F. M. McKer, Dundee.

GAME.—1 and Cup, T. W. Mitchell, Perth. 2, Tosh & Beath, Forfar. 3, G. Salmon, Monifieth. he, J. Nicoll, Forfar. c, J. Mackay, Lunan.

POLANDS.—1, Cup, and c, J. Taylor, Montrose. 2 and 3, Mrs. C. B. Taylor, Montrose. 3, A. Duthie, Montrose.

HAMBURGERS.—Silver-spangled.—1, G. Campbell, Tillinamolt, New Pittislog. 2 and 3, J. M. Campbell, New Blyth, Turfiff. he, H. Gibson, Maryton, Montrose. c, J. Hampton, Montrose. Gold-spangled.—1 and Cup, W. & D. Low, Carnoustie. 2, H. Gibson, 3, J. Taylor. he, J. Taylor. c, A. Strathdee, Stonehaven.

HAMBURGERS.—Gold or Silver pencilled.—1, Mrs. W. Chalmers, Hallyburton. 2 and c, D. Middleton, Montrose. 3 and he, G. Cairness, Carnoustie.

HOUDANS.—1, J. Smart, Carnoustie. 2 and 3, W. C. King, Aberdeen. he, G. W. Hibbert, Godley, Manchester. c, Miss Drummond, Erris.

ANY OTHER VARIETY.—1, G. Cairness (Black Hamburgs). 2 and 3, Mrs. W. Steven (Crested). he, W. Crabbe, Montrose (Black Hamburgs); J. Doig, Montrose (Fringes). c, Miss J. Frew, Sinclairtown, Kirkcaldy (Siskies).
BANTAMS.—Game.—1, J. Greve, Woods. 2 and 3, D. Kerr, Arbroath. he, T. Ritchie, Arbroath. c, Miss A. Marr, Montrose. Silverlight.—1 and Cup, Master A. Frew, Kirkcaldy. 2 and he, J. Taylor. 3, W. Phillips, Montrose. c, J. Dallas, Montrose. Any other variety.—1, R. H. Ashton, Mottram, Manchester. 2, Miss B. P. Frew, Kirkcaldy. 3, J. Taylor. he, P. Symon. c, J. Marshall, Montrose.

SELLING CLASS.—Cock or Two Hens.—1, Mrs. C. B. Taylor (Silver Poland). 2, Miss Drummond (Cochins). 3, Mrs. A. G. Duncan, Broughty Ferry (Dark Frabals). he, D. Gellatly (Dorings). c, W. Sandeman (Spanish). R. Ross, Montrose (Brown Red Game Bantam); A. Dickson, Links, Montrose (Partridge Cochins).

DECKS.—Aylesbury.—1 and 3, A. Burnett. 2 and he, Miss Falconer, Fettercar. Any other variety.—1, K. Robertson, Dundee. 2, Miss Mitchell. 3, Mrs. C. B. Taylor.

GRESE.—1, J. Croal, Spearhill, Marykirk. 2, Miss Mitchell. 3, J. Smart.

TURKEYS.—1, Miss Mitchell. 2, Mrs. K. Erskine, Montrose. 3, J. Davidson, Montrose. he, J. Clou.

PIGEONS.

PUTTERS.—Cock.—1, T. Mullins, Perth. 2, M'Gill Skinner, Edinburgh. 3, J. E. Spence, Broughty Ferry. he, T. L. Johnston, Montrose; T. Mullins, Perth. c, J. M. Rodgers, Montrose. Hen.—1, T. Mullins. 2, M'Gill Skinner. 3, T. L. Johnston. he, J. E. Spence; H. Gibson. c, J. M. Donald, Portobello.

CARRIERS.—1, Medal, and 2, S. D. Biddle, Hereford. 3, A. Smith, Broughty. he, J. E. Spence. c, J. Lamont, jun., Edinburgh.

TUMBLERS.—Any variety of short faced.—1 and he, D. Brash, Edinburgh. 2, J. M. Kidd, Edinburgh. 3, J. Smart, Montrose. c, J. Smart. 2, Kennedy, Forfar. Common.—1, J. E. Spence. 2, J. Davidson. 3, J. Taylor. he, R. Findlay, Montrose; J. Cove. c, J. Dow, Aberdeen; T. Mullins.

BABES.—1, J. E. Spence. 2, E. Norrie, Kinliff. 3, J. Lamont, jun. he, J. Day, Edinburgh. c, T. Nicoll.

FANTAILS.—1, J. E. Spence. 2, W. Henry, Aberdeen. 3 and c, J. Smart. he, A. Smith.

JARVIS.—Yellow or Red.—1 and 2, W. & R. Davidson, Montrose. 3, W. Henry. he, J. E. Spence; W. & R. Davidson. c, J. Smart. White or Black.—1, J. Smart. 2, T. Nicoll. 3, W. & R. Davidson.

TRUMPETERS.—1, J. M'Donald. 2, J. M. Rodgers. 3, J. Lamont, jun. he, J. Smart. c, J. M. Kidd.

FURBIES.—1, J. Lamont, jun. 2 and he, Low & Dunn, Montrose. 3, R. J. Wilson.

OWLS.—1, Medal, 2 and 3, W. & R. Davidson. he, I. Norrie. c, Rev. W. J. Steven, Montrose.

NEWS.—1 and 2, A. Duthie, Montrose. 3, J. Smart. he, J. Lamont, jun. c, J. M. Rodgers.

MAGPIES.—1, M. Ord, Sedgefield. 2, G. Halkett. 3, J. Smart. he, Miss R. C. Frew. c, J. Davidson, Montrose.

ANY OTHER VARIETY.—1 and Medal, M. Ord (Turkies). 2, J. M. Rodgers (Archbishops). 3, T. Nicoll (German Pigeons). he, J. Cove (Cocks).

SELLING CLASS.—1, D. Brash (Red Small-faced Tumblers). 2, J. Smart (White Barb). 3, J. M. Kidd (Black Trumpeters).

CAGE BIRDS.

SCOTCH FANCY CANARIES.—Yellow.—Cock.—1, W. Ferguson, Forfar. 2, J. Strachan, Montrose. 3, W. Wood, Forfar. Hen.—1 and Medal, W. Wood. Members Medal, J. Strachan. 2, W. Ferguson.

SCOTCH FANCY CANARIES.—Buff.—Cock.—1, W. Wood. 2, W. Smith, Brechin. 3, W. Clyde, Forfar. Hen.—1, W. & R. Davidson. 2, J. Shanks, Arbroath. 3, A. Rae. he, W. Wood.

SCOTCH FANCY CANARIES.—Green.—Cock or Hen.—1, J. Shanks. 2, C. Ormond, Forfar. 3, J. Mitchell, Arbroath.

SCOTCH FANCY PIERALS.—Yellow.—Cock.—1, D. Watson, Brechin. 2, J. Shanks. 3, A. Rae. Hen.—1, J. Black, Arbroath. 2, D. Welsh, Brechin. 3, J. Munro, Montrose.

SCOTCH FANCY PIERALS.—Buff.—Cock.—1, C. Ormond. 2, J. Black. 3, A. Dunn. Hen.—1 and 2, J. Adam, Arbroath. 3, D. Clyde, Montrose. he, W. Ferguson.

BELGIAN.—Cock.—1, W. Hutcheon, Brechin. 2, J. Jarron. 3, W. Ferrier, Brechin. Hen.—1, W. Hutcheon. 2, W. Ferrier. 3, J. Jarron.

POUL FEATHERED OF FOREGOING CLASSES.—Cock.—1, D. Clyde. 2, J. Black. 3, T. Leslie, Arbroath. Hen.—1, W. Hutcheon. 2, A. Dunn. 3, W. Smith.

SELLING CLASS.—Cock.—1, J. Shanks (Yellow). 2, D. Clyde. 2, J. Strachan (Buff). Hen.—1, W. Smith. 2 and 3, J. Strachan (Buff).

COMMON CANARIES.—Yellow.—Cock.—1, D. Clyde. 2, J. Scorgie, Montrose. 3, J. Dorward, Montrose. Hen.—1, D. Clyde. 2, A. Murray, Montrose.

COMMON CANARIES.—Buff.—Cock.—1, G. Dakers, Montrose. 2, W. Scott, Montrose. 3, A. Mathieson, Montrose. Hen.—1, D. Beattie, Montrose. 2, M. Gove, Montrose. 3, J. Dorward.

COMMON PIERAL CANARIES.—Cock.—1, M. Gove. 2, A. Mathieson. 3, J. Scorgie. Hen.—1, J. Dorward. 2, J. Scorgie. 3, A. Mathieson.

COMMON GREEN CANARIES.—Cock.—1, W. Anderson, Montrose. 2, D. Duncan, Montrose. 3, C. Dakers, Montrose. Hen.—1, A. Harris, Montrose. 2, J. Beattie, Montrose. 3, D. Beattie, Montrose.

GOLDFINCH.—Cock.—1, J. Dorward. 2, A. M'Kay, Marykirk. 3, Miss M. A. Taylor.

GOLDFINCH MULES.—Cock.—1, G. Dick, Forfar. 2, J. Dorward. 3, J. Smart. BULLFINCH.—Cock.—1, Miss N. Burgess, Seaton of Usan. 2, D. Clyde. 3, J. Taylor.

SISKIES.—Cock.—1, J. Munro. 2, W. Middleton, Montrose. 3, J. Dorward. Silver.—Cock.—1, W. Anderson. 2, A. Christie, Montrose. 3, J. Taylor.

LINNET.—Cock.—1, J. White, Montrose. 2, A. Harris. 3, W. Scott. LINNET MULE.—Cock.—3, A. Mathieson.

STARLING.—Cock.—1, J. Munro. LARK.—Cock.—3, J. Strachan.

EXTRA CLASSES.

PARROTS.—Grey.—1, W. Cruickshank, Stonehaven. 2, W. & J. Clark, Montrose. 3, J. Taylor. Any other variety.—1, R. Lindsay, Montrose.

PARAKEETS.—1 and 2, J. Peebles. 3, Mrs. Capt. Hughes, Montrose. COCKATOOS.—1, W. M. Paton. 2, J. Edwards, Montrose. 3, Mrs. Lyall, Montrose.

BEST AND MOST VARIED COLLECTION OF BIRDS.—1, J. Munro. 2, A. Mathieson.

RABBITS.—Pair.—1, D. Dorward. 2, H. Davidson, Montrose.

BELFAST POULTRY SHOW.

The offer of a good list of cups and money prizes will bring a good show together, even on the other side of the Irish Channel, and the Belfast Ornithological Society has no reason to repine with such success achieved in the face of one show in Ireland, and perhaps near a dozen in England at the same time, though we do not think the time chosen the most opportune that could be. The Ulster Hall is an excellent place for such a gathering, the room being lofty and light. Turner's pens were used, and being well placed, made an excellent display of the occupants. In most of the classes the English exhibitors had been very wary, and had sent excellent birds; but even these had plenty of work with the stock of our Irish friends, as will be seen from the prize list.

In Dorkings Mr. Mulligan headed the list with a good Dark cockerel, also taking the cup for the four classes, most of the other birds being rather defective in feet. The hens were a good lot in the Dark, but the Light or Silver-Greys did not show up well in quality. Cochins, Buff, brought some grand birds. In cocks a grand old bird was awarded first position; the second, a cockerel, was very grand in feather and colour; but the former was beaten for the cup for cocks by a handsome well-developed Partridge shown by Messrs. Crabtree, the second here being White. In hens, Buff, were some grand birds. The first a most grand bird in shape and style, a little flecked with unmottled feathers, was awarded the cup, and being in catalogue at a low price she was sold at once. The second and third were grand coloured birds. In the next class the first was a large white, second a Partridge not so large, but more shapely. Brahmans also turned up well, there being four cups. The Dark cocks were good. A cockerel, in price only £3 3s., won, and was at once sold; second and third were old birds. In hens Mr. Leno's exquisitely-marked pullet was first-and-cup, Mr. Crabtree's large old hen second; and there were many other very excellent hens in the class. Light Brahma cocks were only

good as regards the winners, and the same remark applies to the hen class, but the noticed birds were very good. *Spanish cocks*.—First a large deep-lobe cock, rather rough, as also the second; the third was unusually fine in face, but a little slack in comb (being a cockerel), must make a grand bird. *Hens*.—First a hen very fine in face, but not deep in drop. In *Game*, Black Reds, the first was a very strong cockerel, not so fine, however, as the second, nor so good in colour, but the latter was very much Goose-winged. In *Hens* of that kind two pullets won first and second. The first, very fine in all points, won also the cup for *Hens*; the second was a grand pullet, but had a badly-twisted comb. In *Game*, Brown Reds, cocks were poor, but *Hens* very good. In Any other cocks a Pile stood first-and-cup, a grand cockerel in all points, a Pile also standing very clear in the *Hens*, *Houdans* were a fair lot, but the next French class much better, the cup going to a grand pen of La Flèche, and second to Crève-Cœur. Excepting in a few cases we cannot compliment the exhibitors upon the quality of *Hamburgs*, but some of these were good, especially the Gold-pencilled cup cockerel and the cup pen of Gold-spangles. Blacks were, however, very good. In *Polish*, the first and third were Silvers, and second Black, all good. The first-prize cock and third-prize pullet were real gems, as also the pair of Blacks. *Game Bantams* poor, except first pen, but Sebrights exceptionally good; the first Silver, and second Gold. In Blacks the first stood out from the rest, and were an exquisite pen, and the cup was awarded here. The *Selling classes* were large, and many birds were sold. *Ducks*, Rouen, came next, and the cup for aquatic birds was awarded here to a remarkably fine pen, the second being also good, but the Duck evidently an old one. *Aylesburys* were large, but not well shown, being mostly dirty. Mr. Sainsbury showed a grand pen of Black East Indian, which were small and neat in all points. Of *Turkeys* and *Geese* there were two pens each, the *Turkeys* not large, but the *Geese* very good. The first and second Toulouse.

In *PIGEONS* the prizes were very good—twenty-one cups, and in most classes £2, £1, and 10s. in each, which, taking into consideration the much easier manner in which they can be conveyed, is quite double the inducement offered for poultry, where only eighteen cups and the same amount in prizes were offered. There were forty-one classes for poultry and forty-five for Pigeons. In the first there were 424 entries, and in the latter section 340 entries. Surely our Irish friends are becoming quite enthusiastic in the Pigeon fancy. The quality of the birds, as may be expected with such a list, Mr. Montgomery's birds adding quite an embellishment to the first part of the high class section of the Show, this gentleman and a few Scotch fanciers giving Mr. Fulton quite a turn-up. The *Pouters*, with eight classes, were quite a show in themselves. In *Carriers* we noticed a grand young Black cock obtained a first position, this being one of the strongest birds we have ever seen, but, perhaps, a little short at the back of his eye. Some demurred to the award, which we consider was rightly made. Mr. Fulton's Dun cock so well known obtained a first position, but the cup for this section went to a good Dun hen. *Tumblers* and *Barbs* showed-up well. *Trumpeters* yet show a want of foot-feathering, so much needed to complete the appearance of the new variety. There were some good *Fantails* in both classes, and the awards well made. In *Dragoons* we considered the awards in Blue and Silver as coming it too much of the Horseman style, many grand birds, such as Messrs. Graham, Gamon, and Staunton showed, being passed over unnoticed. In Any other colour we thought the first and second better made. In *Antwerps* Mr. Gamon won with some good Short-faces, but Mr. Wright's excellent Silver Dun was only commended.

DORRINGS.—Coloured, except Silver-Grey.—Cock.—1 and Cup, W. G. Mulligan, Belfast. 2, W. H. King, Rochdale. 3, W. H. Crabtree, Manchester. *Hen*.—1 and Cup, W. H. Crabtree. 2, Lord Massey, Limerick. 3, Mrs. Brennan. *hc*, Lord Massey; W. G. Mulligan (2); J. Pollock, Dundonald; W. H. King (2); W. H. Crabtree.

DORRINGS.—Silver-Grey or White.—Cock.—1, W. H. King. *Hen*.—1, Miss de C. Drevau, Dublin. 2, W. H. King. 3, J. Firth, Belfast.

COCHINS.—Buff or Cinnamon.—Cock.—1, H. Tomlinson, Birmingham. 2, W. H. Crabtree. 3, W. G. Mulligan. *hc*, G. A. Stephens, Dublin. *hc*, L. Storey, Dublin; F. Robertson, Belfast (2); J. W. Crosby, West Bromwich. *Hen*.—1 and Cup, F. W. Zurborst, Dublin. 2, W. G. Mulligan. 3, D. Sullivan, Dublin. *hc*, Mrs. Heddie, Inverness. *hc*, A. Withers, Stranraer; Dr. Storey; F. Robertson. *c*, M. Mahony, Dublin; J. W. Crosby.

COCHINS.—Any other variety.—Cock.—1, Cup, and 2, W. Whitworth, jun., Manchester. 3, Dr. Storey. *Hen*.—1 and c, W. Whitworth, jun. 2, W. J. Mulligan. 3, T. A. Road, Londonderry.

BRAMMAS.—Dark.—Cock.—1 and Cup, H. J. McBride, Gifford. 2, A. Robertson, Kilmarnock. 3, W. H. Crabtree. *hc*, W. G. Mulligan; J. Sturt, Helensburg; J. Forrest, Dublin; M. Leno, Dunstable. *Hen*.—1 and Cup, M. Leno. 2, W. H. Crabtree. 3, J. Sturt. *hc*, W. G. Mulligan; W. H. Crabtree. *hc*, W. G. Mulligan; H. J. McBride.

BRAMMAS.—Light.—Cock.—1 and Cup, W. H. Crabtree. 2, E. J. Poor, Limerick. 3, M. Leno. *hc*, A. Field, Dublin. *c*, E. T. Herdman, Stranraer. *Hen*.—1 and Cup, A. Field. 2, J. Forrest. 3, M. Leno. *hc*, E. T. Herdman. *c*, A. Field; W. A. P. Montgomery, Belfast.

SPANISH.—Cock.—1, Cup, and 2, J. A. & M. F. Smyth, Londonderry. 3 and *hc*, W. G. Mulligan. *hc*, A. Withers; Mrs. I. Strange, Belfast. *Hen*.—1, Cup, and 3, W. G. Mulligan. 2, J. A. & M. F. Smyth. *hc*, J. & M. F. Smyth; A. Withers.

GAME.—Black Red.—Cock.—1, J. F. Walton, Rawtenstall. 2, F. W. Zurborst. 3, J. H. Lowry, Dunganon. *Hen*.—1 and Cup, Furness & Sudall, Rawtenstall. 2, C. E. McClintock, Glendarragh, Co. Antrim. 3, J. H. Lowry.

GAME.—Brown Red.—Cock.—1, J. Frame, Comer, Co. Down. 2, J. F. Walton. 3, H. Beldon, Goltstock, Bingley. *Hen*.—1, J. F. Walton. 2, A. J. Poer. 3, J. Frame.

GAME.—Any other variety.—Cock.—1 and Cup, J. F. Walton. 2 and 3, J. H. Lowry. *Hen*.—1, J. F. Walton. 2 and 3, J. H. Lowry.

HOUDANS.—1 and Cup, W. Whitworth, jun. 2, A. Withers. 3, G. W. Hibbert, Manchester. *c*, E. T. Herdman.

CRÈVE-CŒUR AND LA FLÈCHE.—1 and Cup, E. Walton, Horncliffe, Rawtenstall. 2, W. H. Crabtree. 3, G. W. Hibbert. *hc*, F. Watson, jun., Lurgan (2).

HAMBURGS.—Gold-spangled.—1 and Cup, Furness & Sudall. 2, J. Crawford, Beith. 3, H. Beldon. *hc*, Dr. Storey; A. Robertson. *Silver-spangled*.—1, H. Beldon. 2, Furness & Sudall. 3, W. Martin, Stranraer. *c*, W. J. Davison, Belfast.

HAMBURGS.—Gold-pencilled.—1, Cup, and 3, H. Beldon. 2, Furness and Sudall. *hc*, W. Martin. *Silver-pencilled*.—1 and 3, H. Beldon. 2, W. Martin.

HAMBURGS.—Black.—1 and 2, H. Beldon. 3, J. M. Wilson, Kilmarnock.

POLISH.—1, H. Beldon. 2 and *hc*, Miss Drevau. 3, W. Martin.

BANTAMS.—Game.—1 and Cup, E. Walton. 2, W. Sheuton, Lancaster. 3, J. W. Crosby. *hc*, E. R. Lucas, Belfast. *c*, W. G. Mulligan; J. Corseaden, Londonderry. *Sebright*.—1 and 2, M. Leno. 3, H. Beldon. *hc*, F. Connor, jun., Bangor, Co. Down; Miss N. Richardson, Belfast; A. Robertson. *Black*.—1 and Cup, R. H. Ashton, Manchester. 2, A. Robertson. 3, D. M. Laren, Kilmarnock. *hc*, Master M. Hilliard, Dublin; H. Beldon. *Any other variety*.—1, A. Corseaden, Belfast. 2, Mrs. H. Hutcheson, Donabate, Co. Dublin. 3, F. Watson, jun.

ANY OTHER VARIETY.—1, H. J. McBride (Malays). 2, J. F. Walton, Newtownards (Malays). 3, G. Walker (Rumpy or Chinese).

SELLING CLASS.—Cock.—Price not to exceed £1 10s.—1, Furness & Sudall. 2, W. G. Holt, Accrington. 3, W. G. Mulligan. *hc*, J. H. Lowry (Duckwing Cocker); J. Pollock (Coloured Dorking); J. F. Walton; F. Robertson (Buff Game). *hc*, C. E. McClintock (Golden-pencilled Hamburgs); H. J. McBride (Dark Brabman); W. G. Mulligan; J. Pollock (Coloured Dorking); J. Firth (Brabman); F. Robertson (Dark Brabman); Mrs. Bagwell (Grey Dorking). *c*, J. M. Wilson (Black Hamburg).

SELLING CLASS.—Pair of Hens or Pullets.—Price not to exceed £2.—1, E. Malcomson, Belfast (Partridge Cochins). 2, W. G. Mulligan. 3 and c, E. T. Herdman. *hc*, A. Withers (Houdans); J. F. Walton; Furness & Sudall. *hc*, E. T. Herdman (2); W. G. Mulligan (2); J. Firth (White Cochins); Mrs. Bagwell, Tullyhogue, Co. Tyrone (Grey Dorking).

DUCKS.—Rouen.—1, Cup, and *hc*, W. G. Mulligan. 2, F. Robertson. 3, W. B. Maxwell, Carrickfergus. *hc*, E. T. Herdman (2); W. Whitworth, jun. *Aylesbury*.—1, J. A. & M. F. Smyth. 2, T. C. Browne. 3, A. Robertson. *Any other variety*.—1, G. S. Sainsbury, Devises. 2 and 3, Mrs. Brennan.

ORNAMENTAL WATERFOWL.—Pair.—1, W. Martin.

TURKEYS.—1, F. Watson, jun. 2, Mrs. Brennan.

PIGEONS.

POUTERS.—Blue-pied.—Cock.—1 and Cup, N. Hill. 2 and 3, R. Fulton New Cross, London. *hc* and c, J. Wallace. *Hen*.—1, F. W. Zurborst. 2, 3, and *hc*, J. Wallace.

POUTERS.—Black-pied.—Cock.—1 and 2, J. Wallace. 3, R. Fulton. *Hen*.—1 and Cup, R. Fulton. 2, 3, and c, J. Wallace.

POUTERS.—Yellow-pied.—Cock.—1, J. Wallace. 2 and 3, R. Fulton. *Hen*.—1 and 2, J. Wallace. 3, R. Fulton.

POUTERS.—White.—Cock.—1, J. H. Hutchinson, Donabate, Co. Dublin. 2 and *hc*, R. Fulton. 3, Mrs. Ladd. *hc*, J. Wallace. *Hen*.—1, J. H. Hutchinson. 2, R. Fulton. 3, Mrs. Ladd. *hc*, J. Wallace. *c*, J. Ford; J. Gardner, Preston; R. Fulton. *c*, E. A. Seale; R. Fulton.

CARRIERS.—Black.—Cock.—1 and *hc*, J. Montgomery. 2 and c, R. Fulton. 3, M. Stuart. *Hen*.—1, R. Fulton. 2, M. Stuart. 3 and *hc*, J. Montgomery. *c*, J. Wallace.

CARRIERS.—Dun.—Cock.—1, Cup, and *hc*, R. Fulton. 2 and c, J. Montgomery. 3, M. Stuart. *Hen*.—1, Cup, 2, and *hc*, J. Montgomery. 3 and *hc*, R. Fulton. *c*, M. Stuart.

TUMBLERS.—Short-faced Almond.—Cock.—1, Cup, and *hc*, M. Stuart. 2 and 3, R. Fulton. *Hen*.—1 and *hc*, M. Stuart. 2 and 3, R. Fulton.

TUMBLERS.—Short-faced any other colour.—Cock.—1 and Cup, J. Forde. 2 and 3, M. Stuart. *hc*, M. Stuart; J. Forde. *c*, E. A. Seale; R. Fulton. *Hen*.—1, J. Ford, London. 2 and 3, M. Stuart. *hc*, J. Ford; J. Gardner, Preston; R. Fulton. *c*, E. A. Seale; R. Fulton.

TUMBLERS.—Common, Beards or Balbs.—Pair.—1 and 3, F. Robertson. 2, W. Shean. *hc*, J. G. Orr; F. Robertson; J. McAlpin, Belfast. *c*, J. Ford; A. A. Vander Meersech.

TUMBLERS.—Common, any other colour.—Pair.—1, J. G. Orr. 2, F. Robertson. 3, J. Forde.

BARBS.—Black or Dun.—Cock.—1 and Cup, R. Fulton. 2 and 3, W. A. P. Montgomery. *hc*, J. Dowling; J. Wallace; R. Fulton. *Hen*.—1, Cup, and 2, W. A. P. Montgomery. 3 and *hc*, R. Fulton.

BARBS.—Any other colour.—Cock.—1 and 3, W. A. P. Montgomery. 2, J. Wallace. *hc*, R. Fulton. *c*, W. S. McGibbon, Belfast. *Hen*.—1, R. Fulton. 2, W. A. P. Montgomery.

JACOBIANS.—Red or Yellow.—Cock or *Hen*.—1 and Cup, E. A. Seale. 2, W. Shean, Comer, Co. Down. 3, R. Fulton. *hc*, J. Frame. *c*, J. H. Hutchinson (2); E. A. Seale; W. Shean.

JACOBIANS.—Any other colour.—Cock or *Hen*.—1 and c, E. A. Seale. 2, J. Frame. 3, W. Shean. *hc*, R. Fulton.

TRUMPETERS.—Black.—Cock or *Hen*.—1 and Cup, R. Fulton. 2, A. A. Vander Meersech, Tooting, London. 3, J. H. Hutchinson. *c*, J. & W. Towerson.

TRUMPETERS.—Any other colour.—Cock or *Hen*.—1, J. H. Hutchinson. 2, R. Fulton. 3, J. Wallace. *c*, J. H. Hutchinson; A. A. Vander Meersech.

FANTAILS.—White.—Cock or *Hen*.—1, J. F. Liversidge, Newark-upon-Trent. 2, J. E. Spence, Broughty Ferry. 3, E. A. Seale; A. Robertson. *hc*, E. A. Seale. *c*, J. F. Liversidge; W. S. McGibbon.

FANTAILS.—Any other colour.—Cock or *Hen*.—1 and 3, E. A. Seale. 2, J. Kemp, Haslingden.

OWLS.—English.—Cock or *Hen*.—1 and Cup, W. J. Henry, Dublin. 2, J. Gardner. 3, R. Fulton.

OWLS.—Foreign.—Cock or *Hen*.—1, J. I. Sparrow, London. 2, R. Fulton.

TURBETS.—Red or Yellow.—Cock or *Hen*.—1 and Cup, J. G. Orr, Beith. 2 and 3, E. A. Seale. *hc*, J. & W. Towerson; R. Fulton. *c*, J. G. Orr; J. Muir, Dalry. *c*, E. A. Seale.

TURBETS.—Any other colour.—Cock or *Hen*.—1, E. A. Seale. 2 and 3, H. I. Tivy, Cork.

NUNS.—*Cock or Hen*.—1 and 2, E. A. Seale. 3, A. A. Vander Meersch. *hc*, E. A. Seale; A. A. Vander Meersch.

DRAGONS.—*Blue or Silver*.—*Cock or Hen*.—1, Cup, and 2, R. Fulton. 3, W. Gamon. *c*, C. F. Stanton, Dublin; W. Smyth.

DRAGONS.—*Any other colour*.—*Cock or Hen*.—1 and *c*, F. Graham. 2, R. Fulton. 3, W. S. McGibbon. *hc*, C. F. Stanton; F. Graham.

ANTWERPS.—*Short-faced*.—*Cock or Hen*.—1, Cup, and 2, W. Gamon. 3, F. W. Zurburth. *hc*, W. Gamon; J. Gardner. *c*, J. Wright, Manchester (2).

ANY OTHER VARIETY.—*Pair*.—1, Cup, and 3, J. Wallace. 2, J. & W. Towerson. *c*, J. & W. Towerson; R. Fulton.

SELLING CLASS.—*Cock or Hen*.—*Price not to exceed 40s.*—1, J. Dowling. *hc*, F. W. Zurburth (Runt); W. Shean (Barb). *c*, W. A. P. Montgomery (Trumpeters and Yellow Owls); A. Robertson (Blue Beard); W. Shean (Carrier); J. Waters, Belfast.

SELLING CLASS.—*Price not to exceed £5*.—*Pair*.—1 and 2, W. A. P. Montgomery (Barbs). 3, J. Forde (Tumblers). *hc*, J. Dowling (Dragons). *hc*, J. Frame. *c*, W. G. McGibbon (White Pouters); E. A. Seale (White Fantails); J. J. Sparrow (White African Owls); J. & W. Towerson.

DISTINCT VARIETY.—*Pairs*.—1, Cup, and 2, R. Fulton. 3, W. A. P. Montgomery.

COMPETITION OPEN TO MEMBERS ONLY.

POTTERS.—*Young Cock*.—1 and Cup, D. Combe, New Cross, London. 2 and *hc*, Mrs. Ladd, Calve. 3 and *c*, J. Wallace, Glasgow. *Young Hen*.—1, Cup, and 2, J. Wallace. 3, Mrs. Ladd.

CARRIERS.—*Black*.—*Cock or Hen*.—1, Cup, and 2, J. Montgomery, Belfast. 3, M. Stuart, Glasgow.

CARRIERS.—*Dun*.—*Young Cock or Hen*.—1, Cup, and 3, J. Montgomery, 2, M. Stuart.

BARBS.—*Young Cock or Hen*.—1, Cup, and 2, W. A. P. Montgomery. 3, J. Dowling, Cork.

CAGE BIRDS.

NORWICH.—*Clear*.—*Cock*.—1, Cup, and 2, G. & J. Mackley, Norwich. 3, W. Smith. *c*, J. & W. Stitt, Belfast; W. Smith. *Hen*.—1, J. & W. Stitt. 2, W. Smith. 3, G. & J. Mackley.

NORWICH.—*Marked or Variegated*.—*Cock*.—1, W. Smith. 2, 3, and *hc*, G. and J. Mackley. *c*, J. & W. Stitt; W. Smith. *Hen*.—1, 2, and 3, G. & J. Mackley. *c*, W. Smith.

BELGIAN.—*Yellow*.—*Cock*.—1, R. Hazelton, Lurgan. 2, P. Harrington, Beith. 3 and *hc*, W. Gault, Belfast. *c*, J. Elliott, Belfast. *Hen*.—1 and 2, W. Gault. 3, J. & W. Stitt. *hc*, J. Elliott.

BELGIAN.—*Buff*.—*Cock*.—1, Cup, and 3, W. Gault. 2, J. & W. Stitt. *hc*, J. Elliott. *c*, J. M. Nab, Belfast. *Hen*.—1, R. Hazelton. 2 and *c*, J. & W. Stitt. 3, J. M. Nab.

SCOTCH.—*Yellow*.—*Cock*.—1, A. Kelly, Paisley. 2, J. S. Watson. 3, J. and W. Stitt. *c*, W. Gault, Belfast; P. Dillen, Belfast. *Hen*.—1 and Cup, P. Harrington. 2, J. & W. Stitt. 3, J. Brown. *c*, J. S. Watson, Lurgan; S. Croll, Belfast.

SCOTCH.—*Buff*.—*Cock*.—1, A. Kelly. 2, S. Croll. 3, P. Harrington. *hc*, W. Gault. *c*, A. Corseaden. *Hen*.—1, A. Kelly. 2 and *hc*, S. Croll. 3, J. McDowell. *c*, W. Gault.

SCOTCH.—*Variegated Yellow*.—*Cock*.—1 and Cup, A. Kelly. 2 and 3, J. Consins, Belfast. *c*, J. M. Connell. *Hen*.—1, W. Gault. 2, J. M. Nab. 3, J. Longham, Belfast.

SCOTCH.—*Variegated Buff*.—*Cock*.—1 and Cup, A. Kelly. 2, W. Glover, Belfast. 3, W. Gault. *c*, S. Croll; J. & W. Stitt. *Hen*.—1 and 3, A. Kelly. 2, J. and W. Stitt. *c*, Miss M. A. Wylie, Belfast.

ANY OTHER VARIETY OF CANARIES.—2, G. & J. Mackley (Buff-crested Norwich). 3, J. & W. Stitt (Silver-spangled Lizard); G. & J. Mackley. *hc* and *c*, J. & W. Stitt (Silver and Golden-spangled Lizard).

MULES.—1, P. Harrington. 2, W. G. Mulligan. 3, D. H. Ellison, Belfast. *hc*, A. H. Clarke, Belfast. *hc*, T. Scully, Belfast. *c*, W. Wilson, Belfast; J. Hughes, Lurgan; R. Burns, Belfast.

BRITISH SONG BIRDS.—1, G. Jamieson, Newtownards. 2, W. Goodfellow, Belfast. 3, G. & J. Mackley. *hc* and *c*, W. A. Firth.

SELLING CLASS.—1, J. M. Nab (Yellow Scotch). 2, D. H. Ellison (Yellow Piebald). 3, J. S. Watson (Belgian Yellow).

PARROTS.—1 and *hc*, J. S. Watson. 2, D. H. Hughes, Belfast. 3, J. Typer. *hc* and *c*, Mrs. J. M. Wilson, Kilmarock.

JUDGES.—*Poultry*: Messrs. Dixon and Hutton; and for *Pigeons*, Mr. Jones.

SWANSEA POULTRY SHOW.

This Show was a complete success. It was held in the covered market. The birds were well attended to. Mr. Carr, the Steward of the poultry department, was unremitting in his attention. The birds were exhibited in Turner's pens; being placed on one height all birds stood an equal chance. The day was fine, and brought a large attendance of visitors.

The *Dorkings* were a good class, numbering twenty-one pens, the prize birds particularly so; eight pens were commended. *Spanish* only moderate, the first-prize bird good, but shown in bad condition. Black and Brown *Game* brought seventeen pens of very fair birds. We thought we saw some of the Malay in some of them. *Game*. Any other variety, seven pens, the cup was given to a pen of good Piles, a pen of Duckwings running them very close. *Cochins* were very fair, the prize pens being good. *Brahmas*, Dark, as usual, were strong classes in both old and young. Mr. Feast took the cup and third prize with good birds. There were thirteen pens of old, and seventeen pens of young birds. In Light *Brahmas* Mrs. Roll's pen 361, to which the cup was awarded, being particularly good. There were many good birds in both the old and young classes, eleven pens old, twelve pens young. *French*, Mr. Feast took the first with a bird that figured in the Palace prize list we think. Any other variety.—The pen 409, Malays, were very good indeed, and justly merited the cup awarded to them. *Game Bantams*, eighteen pens, nothing very striking; first Brown Reds, second and third Black Reds. *Bantams*. Any other variety, first and cup to a very nice pen of Silver-laced. *Game*, cockerel, the first a stylish

Black Red, second a good Black Red. There were twenty-two pens, but nothing to note beyond the prize pens. We would like our Welsh fanciers to try and get the dark eye and more of the lemon shade into their Brown Red Game cockerels' hackles: their style is good, but we do not like the colour. In pullets we thought the prizes well awarded. The *Ducks* were good, particularly the drake in the cup pen. The first-prize *Geese* and *Turkeys* were very fine. In the Selling class were some very choice and cheap pens; these were offered by auction at 3 o'clock.

The *PIGEONS* were a nice lot of ninety-four pens. Mr. Spencer, of Hereford, won the point cup. First-prize *Carrier* cock, Black, able to win in better competition. First-prize *Jacobins* were also very good; the *Fantails* an excellent class. *Barbs* poor. First-prize *Trumpeters*, English and Foreign, with good rose. First-prize *Turbits* pretty Blues.

DORKINGS.—Cup, R. Leyshon. 2 and 3, H. Feast, Swansea. *hc*, Mrs. H. H. Vivian, Parkwern; Mrs. Rolls, Monmouth. *hc*, R. Leyshon; W. Morris Llandilo; W. Bevan. *c*, J. Arabin, Nenth; J. Leyshon; W. Bevan.

SPANISH.—1, T. R. Mitchell, St. Thomas. 2, H. Feast. 3, Mrs. H. H. Vivian.

GAME.—*Black and Brown*.—1, O. John, Hafod. 2, T. A. Dean, Marden. 3, D. Morgan, Carmarthen. *hc*, W. James, Llwyn Mawr. *hc*, H. M. A. Eslick; S. Burford. *c*, G. S. Cole, Llanelly. *Any other variety*.—Cup, W. L. Blake, Llandaff. 1, D. W. J. Thomas, Brecon. 2, D. Morgan. 3, J. P. Moses, Llandaff.

COCHINS.—*Buff or Cinnamon*.—Cup, C. Bloodworth, Cheltenham. 2, J. Bloodworth, Cheltenham; H. Feast. 3, Mrs. Bidder, Wauchoerch. *c*, H. Feast. *Any other variety*.—1, C. Bloodworth. 2, R. Jones, Neath. 3, J. Hedges, Aylesbury.

HAMBURGHS.—*Gold-spangled*.—1, Mrs. Rolls. 2, T. R. Mitchell. 3, J. Carr, Hafod. *Silver-spangled*.—Cup, Mrs. Rolls. 2, Mrs. H. H. Vivian. 3, J. Carr. *hc*, T. R. Mitchell; J. Carr. *c*, H. Feast; J. Carr.

HAMBURGHS.—*Gold-pencilled*.—Cup and 1, Mrs. Rolls. 3, Mrs. H. H. Vivian. *c*, J. F. Davies, Neath. *Silver-pencilled*.—1, H. Feast. 2 and 3, T. R. Mitchell.

HAMBURGHS.—*Black*.—Cup, J. Patrick, Manchester. 2, H. Feast. 3, J. G. H. Morris, Bridgend. *hc*, J. Carr (2).

POLANDS.—1, J. Hinton, Warmistur. 2, J. Bloodworth. 3, H. Feast. *hc*, J. J. Scott, Carmarthen.

BRAHMAS.—*Dark*.—Cup, H. Feast. 2, J. H. Price, Nilton Court. 3, H. Feast. *hc*, J. Richardson, Pantgwyn. *hc*, J. Buckley, jun., Llanelly. *c*, H. Feast (2); D. Thomas; W. Bevan. *Chickens*.—1, W. Morris, Ross. 2, M. H. Dean, Cardiff. 3, H. Pew. *hc*, H. Feast; D. Thomas. *c*, Mrs. Bidder.

BRAHMAS.—*Light*.—Cup, Mrs. Rolls. 2, J. Bloodworth. 3, Mrs. Crook, Keynham. *hc*, T. A. Dean. *hc*, H. Feast. *Chickens*.—1 and 2, T. A. Dean. 3, C. H. P. Abbott, Withington. *hc*, Mrs. Crook. *c*, P. L. Green, Carmarthen; W. Harris; Mrs. Bidder; E. Lawrence, Bridgend.

FRENCH.—1, 2, and 3, H. Feast. *hc*, Mrs. H. Vivian; R. K. Penon, Ludlow; H. Feast; T. A. Dean. *c*, W. Harris; J. H. Ruby, Stourport.

ANY OTHER VARIETY.—Cup, J. Hinton. 2, H. Feast. 3, W. G. Vivian, Singleton. *hc*, N. S. Blake, Llandaff. *c*, J. Carr; W. James (2).

BANTAMS.—*Game*.—1, J. Mayo, Gloucester. 2 and 3, H. Feast. *hc*, G. Lewis, Swansea; W. Haycock, Taihach; H. Feast. *Any other variety*.—Cup, G. Holloway, jun., Stroud. 2 and 3, H. Feast. *hc*, J. W. Lloyd, Kingston; J. Bloodworth; H. Feast.

GAME.—*Cockerel*.—Cup, R. Pearson. 2, G. S. Cole. 3, T. Reece, Llandaff. *hc*, W. Haycock; W. S. Blake, Llandaff. *c*, D. W. J. Thomas; H. Feast; H. P. Price, Brecon. *Pullet*.—1, A. Jones. 2, R. Pearson. 3, W. James. *hc*, T. Reece; D. W. J. Thomas; R. Pearson.

DECKS.—*Aylesbury*.—1, J. Hedges. 2, Mrs. Vivian. 3, W. James. *Rowen*.—Cup, Mrs. Lewis. 2, J. H. Hott, St. Austell. 3, H. Feast. *hc*, Mrs. H. Vivian; R. Leyshon; T. Penrice, Kildwilly; E. Walters, St. Thomas. *hc*, Mrs. H. Vivian. *c*, R. K. Penon; J. Arabin. *Any other variety*.—1, Mrs. Rolls. 2, Mrs. Lewis. 3, T. A. Dean.

GEES.—1, Mrs. Bidder. 2, Mrs. Vivian. 3, Mrs. Lewis. *hc* and *hc*, W. James. *c*, Mrs. H. Vivian.

TURKEYS.—1, Mrs. Bidder. 2, J. A. Lyne, Newport. 3, Mrs. Vivian. *hc*, Mrs. H. Vivian; W. James.

SELLING CLASS.—1, W. Morris. 2, W. T. Lovering, St. Austell. 3, W. Bevan. *hc*, W. Bevan; W. Walters. *hc*, J. F. Davies; G. E. W. Green, Carmarthen; H. Feast (2); W. Harris, Bridgend; T. A. Dean. *c*, Mrs. H. Vivian; R. Pearson.

PIGEONS.

CARRIERS.—*Cock*.—1 and 2, P. R. Spencer, Hereford. 3, W. H. A. Miller, Walsall. *Hen*.—1, P. R. Spencer. 2, R. Pike, Swansea.

POTTERS.—*Cock*.—1, G. Holloway, jun. 2 and 3, P. R. Spencer. *hc*, W. G. Davies. *c*, R. Pike; G. Holloway, jun. *Hen*.—1, G. Holloway, jun. 2 and 3, P. R. Spencer. *c*, R. Pike; W. G. Davies.

TUMBLERS.—*Short-faced*.—1 and 2, P. R. Spencer. 3, G. Holloway, jun. *c*, W. G. Davies.

ANTWERPS.—1 and 2, P. R. Spencer. 3, J. Tracey, Pembroke.

JACOBINS.—1, P. R. Spencer. 2 and *c*, G. Holloway, jun. 3, R. Pike. *hc*, W. G. Davies.

FANTAILS.—1, G. Holloway, jun. 2, W. Morris. 3, P. R. Spencer. *hc*, W. H. Morton, Kingsholme; J. Spurrell, Carmarthen.

BARBS.—1, P. R. Spencer. 2, R. Pike. 3, W. G. Davies.

TRUMPETERS.—1 and 3, G. Holloway, jun. 2, W. G. Davies.

TURBITS.—1, F. S. Hockaday, St. Austell. 2, R. Pike. 3, P. R. Spencer.

NUNS.—1 and 2, P. R. Spencer. 3, G. Holloway, jun.

ANY OTHER VARIETY.—1, P. R. Spencer. 2, W. G. Davies. 3, G. Holloway, jun. *hc*, W. G. Davies (2); P. R. Spencer.

TUMBLERS.—*Pen of not less than Six High-flying*.—1, R. B. Burge. 2, P. R. Spencer. 3, H. W. Evans, Aberdare.

SELLING CLASS.—1, R. Pike; P. R. Spencer. 2, P. R. Spencer. *hc*, A. J. Barnes, Gloucester (2).

Point cup for Pigeons.—P. R. Spencer, Hereford.

JUDGE.—Mr. W. Cannan, Bradford.

MORTALITY IN POULTRY.

ORDINARILY six or eight per cent. of adult fowls will die disease annually, when they are kept for profit and given

stimulating diet to make them lay as much as possible. This is not surprising when we reflect that our domestic fowls are in a highly artificial condition. The production of large numbers of eggs is unnatural, being a habit induced by man, and causes a great strain on the constitution. The artificial supply of food in unlimited allowance, with no necessity for exercise on the part of the fowls, is another source of disease. In the wild state every species of bird must work for a living and procure its food a little at a time. It may be observed, also, that during the very part of the year when food, perchance, is abundant, the wild fowls are kept from laziness by the necessity of feeding their young, nature having fixed the breeding time in the flush season as regards forage. Again, the structure of fowls is so changed by ages of breeding, that the wings and legs, and whole sets of muscles connected therewith, are dwarfed by disease, while other portions of the body are made relatively larger, which impairs the general vigour by destroying to some extent the natural balance of the organisation. For these and other reasons it is to be expected that the ordinary death rate in the poultry yard will be considerable. The fact that fowls will die of old age, anyhow, when five or six—at most eight years old (in most cases)—renders it likely that a certain proportion will die annually at an earlier age. In conformity with this idea, Geese, which do not reach old age till twenty to one hundred years, do not drop off in the early years of maturity to so great an extent as hens.

The moral of the above is that novices in poultry-raising need not worry over their ill-luck, or mistrust that their management is any worse than that of their neighbours, because, perchance, a few of their fowls of two, or three, or four years old die every summer. It is to be expected unless the breed kept is uncommonly hardy, and all the circumstances are unusually favourable. Reduce the death rate as much as possible by hygienic measures rather than by medicine. Give plenty of air and sunshine, feed moderately, and promote exercise, and expect some losses in spite of all precautions.—(*Buffalo Live Stock Journal*.)

RABBIT-KEEPING.—No. 2.

The weaning hutch is built on the same principle. It is 12 feet long, 6 feet wide, and 6 feet high; four storeys in each hutch.

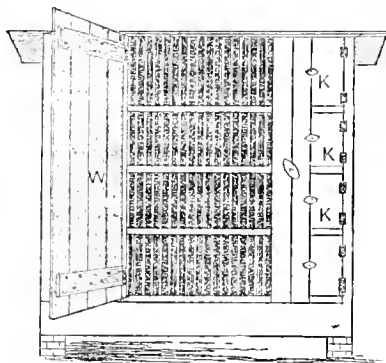


Fig. 153.—Weaning Hutch.

Four feet in the middle is wired to admit air and sunshine, having a large door (w) to close over the wire in bad weather and damp nights. The Rabbits are fed through the small doors (k). The back is furnished with swinging doors, the floors are inclined back, a trough is furnished at the bottom, and everything arranged the same as in the breeding hutch, except the breeding apartment, which is left out, and the whole interior of each storey is one large apartment 6 feet wide by 12 feet long and 18 inches high, in which forty young Rabbits can be kept in a perfectly healthy condition; thus the whole hutch will hold 160 young Rabbits. I set these hutches upon bricks to keep them dry, and would prefer to have the breeding hutches upon the south side of a building or other shelter from cold winds.

The Rabbits are fed at sunrise and sundown. I give dry food at night (hay, grain, &c.), and green food in the morning, such as grass, apples, turnips, &c. I prefer carrots above everything else as a moist food, and especially for young Rabbits. They cannot, in my opinion, be recommended too highly, but even carrots must be fed with a sparing hand to young stock (between six weeks and three months old) or they will be fatally injured. A piece of carrot as big as a small walnut night and morning, and all the dry food they will eat, are the rations I allow.

I keep my stock bucks in a breeding hutch. I find the apartment partitioned off for breeding does is a good thing for the bucks, as they can retire into it. Give the buck plenty of room; if you crowd him into a small place where he cannot exercise he

will soon lose vigour, and in some instances become perfectly useless. I never let my does breed in winter; I have them kindle about the 1st of May, and keep them breeding until the last of November, and from that time until the next spring I let them rest, and think I lose nothing by so doing. This is the method I employ to raise Rabbits in the open air without a building to contain the hutches.—W. F. HALLOCK, *Mattituck, Suffolk Co., N.Y.*—(*The American Pet Stock Bulletin*.)

NORTHUMBERLAND SHOW OF CANARIES AND OTHER BIRDS.

This was held in the Mechanics' Institute, New Bridge Street, Newcastle-on-Tyne, on the 4th and 5th inst. The prizes were as follow:—

- BELGIAN (Clear, Ticked, or Variegated Yellow).—1, 2, and 3, J. Ratter, Sunderland. *hc*, G. Scott; R. Hawman.
 BELGIAN (Clear, Ticked, or Variegated Buff).—1, 2, 3, and *hc*, J. Butter. *hc*, W. Pearson; J. Davison.
 BELGIAN (Clear Dun).—1 and 2, Anderson & Hardy, North Shields. 3, G. Scott. *c*, R. Johnson.
 BELGIAN (Dun-marked).—1, T. English, North Shields. 2, J. Moffat. 3 and *hc*, J. Harrison.
 NORWICH (Clear Yellow).—1 and *hc*, J. Athersuch & Son. 2 and 3, J. Adams. *hc*, J. Stevens. *c*, J. Baxter; A. Armstrong.
 NORWICH (Clear Buff).—1, 2, and 3, J. Adams. *hc*, J. Athersuch & Son (2); J. Baxter. *c*, T. Smith.
 NORWICH (Even-marked Yellow).—1 and 2, S. Pervival. 3, J. Baxter. *hc*, J. Adams. *hc*, J. Athersuch & Son; T. Cleminson. *c*, W. & C. Burniston.
 NORWICH (Even-marked Buff).—1, G. Cox. 2, J. Adams. 3, J. Athersuch & Son. *hc*, J. Athersuch & Son; J. Adams; T. Cleminson. *hc*, J. Baxter.
 NORWICH (Ticked or Uneven-marked Yellow).—1 and *hc*, J. Adams. 2 and 3, J. Athersuch & Son. *hc*, J. Parker. *c*, J. Bexson.
 NORWICH (Ticked or Uneven-marked Buff).—1, J. Parker. 2 and 3, J. Adams. *hc*, T. Tenniswood; Johnson & Armstrong. *hc*, J. Athersuch & Son (2); J. Bexson.
 NORWICH (Yellow or Yellow-marked Crested).—1 and 2, J. Baxter. 3, F. Woodward. *hc*, R. Watterson; F. Woodward; J. Baxter.
 NORWICH (Buff or Buff-marked).—1, F. Woodward. 2 and *hc*, J. Baxter. 3, R. Herdman. *hc*, F. Kuaggs; W. J. Hampton; J. Baxter. *c*, J. Hurrell; G. Cox; W. J. Hampton; F. Woodward.
 NORWICH (Clear or Gray-crested).—1, F. Woodward. 2, G. Cox. 3 and *c*, J. Baxter. *hc*, Johnson & Armstrong.
 CREST (Any variety except Norwich).—1, J. Garbutt. 2 and 3, J. Meakin. *hc*, J. Meakin (4); J. Baxter; J. Garbutt. *hc*, J. Baxter.
 LIZARD (Golden-spangled).—1, 2, and 3, R. Ritchie. *hc*, T. Haywood. *c*, G. Sorge.
 LIZARD (Silver-spangled).—1, 3, and *hc*, R. Ritchie. 2, J. Stevens.
 YORKSHIRE (Clear Yellow or Yellow-marked).—1 and 2, J. Thackrey. 3, Johnson & Armstrong. *hc*, J. Gilhespy; W. & C. Burniston.
 YORKSHIRE (Clear Buff or Buff-marked).—1, J. Thackrey. 2, R. Hawman. 3, Johnson & Armstrong. *hc*, G. Turner; J. Baxter. *hc*, M. Comer.
 CINNAMON (Yellow).—1 and 2, J. Adams. 3, G. Cox. *hc*, R. Watterson; J. Pringle. *hc*, J. Parker; J. Adams.
 CINNAMON (Buff).—1, 2, and 3, J. Adams. *hc*, J. Parker; G. Cox. *hc*, T. Harrison. *c*, G. Sorge (2).
 CINNAMON (Yellow-marked).—1, T. Tenniswood. 2, J. Spence. 3, W. & C. Burniston. *hc*, W. Matison; J. Baxter. *c*, G. Cox; J. Streets.
 CINNAMON (Buff-marked).—1, J. Baxter. 2, W. Pearson. 3, J. Hurrell. *hc*, G. Cox. *c*, G. Scott; J. Gilhespy; W. & C. Burniston.
 CANARY (Green).—1, W. Redhead. 2, H. Armstrong. 3, J. Ellison. *hc*, P. Seaton; J. Stevens; H. Armstrong. *hc*, Anderson & Hardy.
 SCOTCH FANCY (Yellow).—1 and 2, W. Clark. 3, T. Blackburn. *hc*, W. Clark; Johnson & Gaskin. *hc*, J. Stenhouse (2).
 SCOTCH FANCY (Buff).—1, H. Frazer. 2, R. Gilhespy. 3, C. Hobkirk. *hc*, W. Clark; Johnson & Gaskin. *hc*, J. Davison. *c*, J. Hewitt; W. Redhead; J. Smeaton.
 SCOTCH FANCY (Yellow-variegated).—1, T. Bruce. 2, H. Frazer. 3, W. Clark. *hc*, Johnson & Gaskin; J. Murray. *hc*, W. Wallace; J. Streets.
 SCOTCH FANCY (Buff Variegated).—1, T. Brown. 2, G. Stephenson. 3, T. Blackburn. *hc*, W. Wallace; W. Clark; J. Streets. *hc*, W. Clark; H. Frazer.
 SELLING CLASS.—1, J. Bexson. 2, J. Thackrey. 3, G. Sorge. *hc*, T. Cleminson. *hc*, J. Baxter. *c*, W. Wallace; R. Brown; J. Stenhouse (2); J. Stevens; Gales & Cooper; G. Cox; J. Ellison; J. Bexson; W. H. Batchelor.
 GOLDFINCH (Moulded).—1, G. Cox. 2, J. Lawton. 3, R. Hawman. *hc*, J. Wilcox; W. & C. Burniston; J. C. Bamber (2).
 LINNET (Moulded).—1, J. Baxter. 2 and 3, J. Bage. *hc*, G. Stephenson. *c*, W. Robson (2); W. Robinson; G. Scott; M. Waugh; J. Lawton.
 MULE (Goldfinch and Canary Variegated Yellow).—1, R. Hawman. 2, W. & C. Burniston. 3, J. Baxter. *hc*, J. Bexson. *c*, J. Soulsby; G. B. Frost.
 MULE (Goldfinch and Canary Variegated Buff).—1, J. Stevens. 2, J. Soulsby. 3, J. Purdy. *hc*, T. Tenniswood; J. Spence; J. Adams; R. Pearson. *c*, G. Stephenson; D. Hope.
 MULE (Dark Goldfinch).—1, Johnson & Armstrong. 2, G. Cox. 3, R. Hawman. *hc*, R. Hawman; G. Cox. *hc*, R. Simpson.
 MULE (Any other variety).—1 and 3, J. Spence. 2, J. Stephens.
 CAGE OF SIX, IN VARIETY.—1, W. J. Hampton. 2, J. Baxter. 3, R. Gilhespy.
 BRITISH BIRD (Any variety).—1, G. Sorge. 2, J. Baxter. 3, G. Watson. *hc*, J. C. Bamber; J. S. Stark; R. Pearson. *hc*, W. & C. Burniston; G. Cox; Gales & Cooper; W. Winter. *c*, W. Robson; J. Lawton.
 FOREIGN BIRD (Any variety).—1, A. D. Dance. Extra 1, J. S. Stark. 2, W. Maxwell. 3, W. Oakey. *hc*, G. Stephenson; J. S. Stark.

SPECIAL EXTRA PRIZES.

- Silver Medal, for Classes 15, 16, 17, and 18, R. Ritchie, Darlington.
 Silver Medal, for Classes 19, 20, 21, 22, and 23, J. Adams, Coventry.
 Silver Medal, for Class 35, J. Hampton, Darlington.
 Cup, for most points in Crested classes, J. Baxter, Newcastle.
 Cup, for Classes 29, 30, and 35, J. Baxter.
 Cup, for Classes 5, 6, 7, 8, 9, 10, J. Adams.
 Gold Medal, for most points in Show, J. Adams.

Cup, presented by the Committee, for the best bird shown by members, S. Percival, Gateshead.

Silver Medal, R. Lee, Thirsk.

Silver Medal, for Classes 3 and 4, T. English, North Shields.

Silver Medal, for Classes 1 and 2, J. Rutter, Sunderland.

Silver Medal, for Class 37, A. J. Dance.

Silver Medal, for Class 28, J. Bexson, Derby.

Silver Medal, for best Mule in Show, J. Spence, South Shields.

Silver Medal, for Classes 24, 25, 26, and 27, H. Frazer, Newcastle.

BEE-KEEPING.

I ASK you to insert an account of my experience in bee-keeping during the last four months, to encourage those who, like myself, are novices in apiculture, and to elicit hints from the more experienced which may point out defects in my management and suggest improvements for further guidance.

The old and cruel system of burning the bees from the hives to be taken up, is in full vogue in this neighbourhood. I have always taken great interest in the busy workers so mercilessly destroyed, and I made up my mind to try and save as many as I could this autumn from the sulphur pit.

Last spring I purchased a stock of bees in an ancient bell-shaped straw skep. In March I cut a hole in the top, and through this I fed the bees in April. Following the advice so often given in this Journal, I succeeded in getting the bees to take down syrup from an inverted bottle. Early in June a swarm was hived into a straw skep purchased from Mrs. Pagden, of Alfriston, Sussex, and I have since employed none but these hives. They are of good size, and being strengthened by a baud of wood to rest on the floorboard, are always dry and clean. From these two hives I took early in August in straw supers 18 lbs. and 23 lbs. of honey respectively, finding no difficulty in getting the bees to leave it by following the directions given in these pages.

The time now drew near when I was to put into practice my design of saving all the bees I could from the burning. I had taken notice of three gardens in which a goodly array of hives had been standing through the summer. I spoke to the owners about the new system of driving the bees, for new it was to them. The answer in each case was, "Well, sir, you get the bees out alive if you can; you are kindly welcome to them if the new scheme does not injure the honey." "If I show you that the honey can be thus taken free of dead bees, as it cannot be by your method of burning, for scores of bees in trying to escape the deadly fumes die in the cells—will you, then, for the future save your bees by driving them out as I shall, and by feeding them in the manner which I will point out, or by joining them to weaker hives?" Now, it is not an easy task to persuade such men to abandon the old practice and to take at once to a totally new one, and so I will not say that those whom I have tried to convert will at once adopt the humane system, but in time I am certain to prove to them the utility of it.

I had never driven a swarm of bees in my life, but I made up my mind to practise on my own two hives first, and then on those of my neighbours. I was most successful at my first attempt. The bees nearly all ascended in about fifteen minutes. The few left in the old hive soon made their escape after being confined in a shed for a short time. I intended to take all the honey, and found just over 30 lbs. with very little brood. I commenced feeding the same day, and found that from 1 to 4 lbs. of syrup was carried down in twenty-four hours, the amount depending upon the state of the weather. My bees were driven on the 12th of August.

On the 24th of the same month I was asked to take the bees from cottage No. 1. He wished eight hives taken up, mostly old stocks. Before commencing with these I turned up my own hives very carefully to note progress: they had each had about 30 lbs. of syrup in twelve days, and I was delighted to find in one hive five combs, white as snow, well stored, and reaching nearly from crown to floorboard; in the other there were six combs, not so large as the others, but equally well filled with syrup. This gave me much encouragement, and I went to work with a will at the eight hives. I drove them all into clean new ones, four on August 25th, and four on August 26th. I fetched them away in a cart each evening; I spread out the wrappers on the ground before the stands prepared for them (some facing north, some south-east, by way of experiment), and then I joined one of the two weaker to one of the stronger. This was most easily performed in the twilight without any gloves or bee-dress, I gently lifted the strong hive aside to the corner of the sheet, placed two sticks a few inches apart in the centre, then with a sharp rap I knocked out the swarm from the hive between the sticks, and instantly placed the other hive over. This I did again with the other two. At about ten o'clock I went out with a lantern and found every bee had ascended. Not a live bee was there on either sheet, and what was better still, there was not a dead one. I at once lifted the two hives on to their stands and placed a feeding bottle over each; there was a merry hum instantly, and the bottles were half emptied, and the bees flying about examining their new quarters. Early next day I went through

the same process, with like success on the morrow, excepting that from some cause I could not dislodge more than half the bees from one hive by beating. This hive was a late swarm and had very little comb or honey in it. The bees would cluster on the empty side of the hive, and would not mount to the top one. I brushed out all I could with a feather, and moved the rest with a little smoke from old rags while I was beating another hive. I was enabled to present the owner with eight hives of honey, not a dead bee among it, and in the whole only one comb broken, which I placed in a dish which stood near me in case of accidents.

I may here mention that to prevent the bees which followed the hive and those which flew out before the bandage was properly adjusted from annoying me, I placed a heap of damp burning rags to windward of my little table, and I found them most effective in driving off the bees, so much so that after beating a few seconds I was left entirely unmolested, and the cottager who had come home to his dinner was able to stand with me within the magic circle without any protection whatever. I lifted up the top hive very gently and not a bee flew out; we saw them pressing upwards in a compact mass, and in a few minutes the top hive was put in the place of the old one. I now had four new and strong colonies, increasing my apiary to six hives. I fed them as fast as the bottles were emptied, and felt that all was going on satisfactorily. The weather was in my favour, very fine and warm, and two fields of late clover were still in flower, so that my bees worked with a will to secure the last sweet contributions of the season.

It was not until the 2nd of September that I was called upon to take the bees from the garden of cottage No. 2. Here I had nine hives at my disposal; I drove six one day, and the three others next day. Here I found by experience that the heavier the hive the less trouble was there to dislodge its inmates. Ten minutes was sufficient to send most of the bees up where they were numerous and the hive full of honey, whereas twenty minutes were barely sufficient to drive out a colony from a partially empty hive. However, I succeeded in getting all safely mounted on my own floorboards on the evening of September 3rd, having made from the nine hives four strong families by joining the three weakest into one, and the others two and two together. Now my array of hives had increased to nine, and "all went merry as a marriage bell." The clover was no more, but the warm weather continued, and the bees most readily took down the syrup. I used large preserving bottles, holding 4½ lbs. of syrup.

On Monday, September 8th, I drove the six hives in garden No. 3. One hive had but a very few bees in it, and hardly any honey, the wasps had nearly destroyed this hive. The bees were kept in a kind of cupboard or grotto, in a sunny part of the garden. The hives were almost hidden by trailing ivy, which touched the tops of many of them. A more inappropriate place could not have been chosen. There was no way of getting behind the hives, and they stood fourteen in number, upon two shelves, one above the other, each hive nearly touching its neighbours. I found them all firmly glued with propolis to the boards, and the first hive I moved caused the whole apiary to be in a tumult. However, being well protected I succeeded in taking the bees from the hives marked for me. One was particularly difficult to move, and I only found out the cause when by force I detached it from the shelf. Behind it, with ivy tendrils all interwoven was a heap of splendid comb, full of honey and sealed up; this was on the open board at the back of the hive accessible to all the other bees of the apiary. Why was it not attacked and pilfered, since all parts of it were assailable? This question occurred to me, and I can only give one reason: that the bees of this hive were over-powerful in numbers. I took nearly a quart of bees from the old hive when I drove them, and at night when I fetched away my own hive I found quite a gallon of bees clustered in it. To these I joined the few from the wasp-destroyed hive, and also a very weak swarm from another hive, bearing in mind the constant advice of Mr. Pettigrew, "Have strong colonies." I found the remaining three swarms of medium strength, and therefore joined them all into one.

Thus I now have eleven hives to stand the winter. In uniting all these twenty-three swarms into nine hives I had not one case of fighting, although I did not use scented syrup with which to sprinkle the bees before casting them together. Was it that they were so terrified at the summary ejection from their homes a few hours before, that they had no wish for fighting; or that having nothing to protect in the shape of honey or brood they amicably united to begin life anew? These questions I leave for those with more experience than mine to answer.

Now, to sum-up the results of this driving and uniting. I have given altogether to the eleven hives just over 3 cwt. of sugar—that is, at an average, 30½ lbs. to each. Some have taken more, some less. The last day of October I found some of those first driven with stores weighing from 30 to 35 lbs. Thus the weight was about equal to half the weight of the syrup given, because 30 lbs. of sugar would be equivalent to 60 lbs. weight

of syrup. I also found that the two hives containing the last six swarms which were driven had exceeded in weight that of any one of the hives containing the bees from cottager No. 2. This, in spite of many colder days and nights since I commenced to feed them, clearly showing that the stronger the colony put into an empty hive, even late in the autumn, and vigorously fed, the greater the chance of success in keeping it through the winter. I also found that one hive (that which I found to be weakest from garden No. 1) was attacked the last week in September by the bees from the strong colonies from garden No. 3; I at once narrowed the entrances to all the weaker hives and found that the pillaging stopped. The syrup was again taken down, the rejection of which had first called my attention to the fact that something was going wrong. On October 6th as frosts were setting in I made all my pets cosy and warm for the winter. I had always had covers passing over the hives and tied to the posts under the floorboards, and over all caps of zinc or earthenware pans. I now stuffed the space between the covers and the hives with soft hay, and after binding all on tightly and placing straw screens before the entrances to break the cold winds, I topped all with a good bed of hay and replaced the caps and pans. All are well supplied with food, and I do not at all fear that I shall find them short of provisions until next March. I have marked the weaker ones, and shall give them extra attention in early spring.

I will only add one other matter and then look forward to be enabled to send you a satisfactory report of my eleven hives next spring. I had a misfortune with one of my own hives—the feeding bottle fitted too tightly into the block of wood, and I suppose that I shook the hive upon some occasion when inserting the syrup. I soon knew that something was amiss; first because the food was left untouched for two days, and secondly because I noticed that the bees ceased to bring in pollen. I turned up the hive, when judge my dismay upon finding that two-thirds of the combs had fallen *en masse* upon the floorboard. The bees did not seem to care to resent my interference. I, for the first time, singled out the queen in her home, she was upon the top of the heap with a cluster of bees pressing about her; I took up the piece of comb, held it against one which had not fallen, and in a very short time the bees crowded upon it, leaving the broken piece in my hand. I then quickly fetched a dish and placed all the fallen comb in it, at the same time liberating numbers of bees which it had covered. Having cleaned the floorboard I replaced the hive, the broken combs were all filled, most of them with honey, and two pieces about 4 inches square with brood. Some of the young bees crawled out from the cells into the dish; I took these two pieces of comb, lifted up the hive again, and placed them upright on the floorboard. In three days the bees again took down the syrup (no doubt after making reparations in the hive), and pollen was again brought in from the ivy flowers. On the final examination before wrapping up for the winter I found this hive nearly full of comb, and quite heavy. But where was the brood comb gone which I replaced? Not a vestige of it remained, nor was it incorporated with the other comb of the hive.

And now I think I have told all about my first attempts at bee-keeping or rather at bee-rearing. So far I hope successfully. I only now look forward to a fair honey harvest next season and an increase of my stock. Will Mr. Pettigrew kindly inform me where I can obtain the large hives described by him in the Journal of November 5th, and when I ought to uncover my hives again to inspect them?—P. H. P., *Offley*.

THE HIVE CONTROVERSY.

WILL Mr. Cheshire tell us if the contingency he predicts with regard to the so-called bar frame without the bottom rail is grounded on any actual fact, or is it a mere idea of his own? For it appears to me an impossibility for any number of bees that could suspend themselves to a single bar of the thickness usually employed to depress it with their weight, and it does not seem likely that the comb would have the effect, even if full of honey, for its formation would tend to support it.

Bees do sometimes attach the comb to the bottom rail of the frame, but it is the exception instead of the rule. I should like to know how the bottom rail assists ventilation.

Mr. Cheshire is in error when he says that the improvement to which Mr. Pettigrew alludes is, "above all others, recently introduced," for there are several introduced in his hive more recent, although, strange to say, his has the bottom rail.—P. ECHIONE.

OUR LETTER BOX.

WELLINGBOROUGH SHOW.—We are informed that Mr. F. Graham won first prize in Blue Dragons, and had a highly commended Blue Carrier cock.

DOMINIQUE PLUMAGE (*A London B.A.*).—The defect is not so great as if you had to exhibit two pullets, and had only two birds of different shades. You underline the words "best pullet;" have you one that is nearly as good that will match the cock in colour, or more nearly than the other? You state the other birds are inferior. Acting on your own verdict we should consider such inferiority as mere detrimental to success than a different shade of the same

colour. Our advice then is, if the only drawback to the best pen is the dissimilarity you name, and the two birds are plainly better than their mates, exhibit them. You should have named the breed to which your first question relates. Such a division is seen in the Malay, and in Game that have been crossed with them. We know no other breeds that show it, and it is not general in them. We should not consider it a defect in Malays. We should not like it in any other breed.

DRABMA POOTRAS (*E. C.*).—You have no certainty of getting better birds by buying of any particular strain. They may show certain points, but they will not stay earlier. It seems to us impossible that Drabma pullets hatched in March should not yet have laid. Ours have been laying some time, and they were not hatched as early. It is now the worst time of year for eggs, but if you will feed as we advise, we think you will soon have some. Let them have every morning at daybreak a good feed of barley meal or ground oats slaked with water. About eleven o'clock throw them down a little maize or other whole corn. At one o'clock give kitchen scraps or any odds and ends you have, and at four feed again in the morning. Our own experience is, that all inventions and appliances for cheap or artificial foods are productive only of disappointment. It is only while the weather is bad and the nights are long we recommend such feeding as above. Under more favourable circumstances, say in March, one of the two middle feeds may be discontinued. We advise you, in answer to your question, to begin by removing all faulty cocks as soon as their defects appear. This may be done at ten weeks old, and you will be surprised to see how few will pass muster. You will probably be left with few; these will want drafting from time to time. Bad combs will appear; some will be weak on their legs; others will grow only in height and length; and at last when they are six months old you will be surprised at the small number you have to choose from.

METEOROLOGICAL OBSERVATIONS,

CAMDEN SQUARE, LONDON.

Lat. 51° 32' 49" N.; Long. 0° 8' 0" W.; Altitude, 111 feet.

DATE.	9 A.M.					IN THE DAY.						Rain.
1874.	Baromet- ter at 32° and sea level.	Hygrome- ter.		Direction of Wind.	Temp. of Soil at 1 foot.	Shade Tem- perature.		Radiation Temperature.				
Dec.		Dry.	Wet.			Max.	Min.	In sun.	On grass			
We. 9										Inches.	deg.	
Th. 10	28.976	38.9	39.9	N.	41.8	48.8	38.8	51.2	38.4	0.012		
Fri. 11	29.741	30.4	29.4	N.W.	40.0	37.2	26.7	60.2	27.3	0.516		
Sat. 12	28.841	41.9	41.6	S.W.	38.2	46.8	27.4	66.8	28.0	0.006		
Sun. 13	29.992	38.7	37.7	N.	39.4	40.6	38.8	42.4	32.9	—		
Mo. 14	30.343	36.8	36.4	N.W.	39.7	40.2	35.4	45.1	34.2	0.016		
Tu. 15	29.846	34.3	33.0	N.	39.2	37.9	33.4	65.3	29.8	—		
Tu. 15	30.099	31.3	31.2	N.	38.2	33.4	29.7	40.0	26.8	0.190		
Means	29.433	36.0	35.5		39.5	40.7	32.0	63.0	31.1	0.600		

REMARKS.

- 9th.—Dull early, but on the whole a fine day, the wind drying the air.
10th.—Fine frosty morning; very fine in the middle of the day, hazy at night.
11th.—Very wet morning, fine before 11 A.M., fine afternoon, but rain in the evening.
12th.—Fine early, but rain before 11 A.M., and very dark about 1 P.M.; barometer very low all day.
13th.—Early morning fair, but rain again at 11 A.M., and more or less all day; cold uncomfortable day.
14th.—Fine in the morning and moderately so all day, but with occasional spurts of snow.
15th.—Cold morning, house-tops covered with sleet; and, though fine, very cold all day.

A week remarkable for sudden changes of barometric pressure and rather low readings. Temperature low and steadily falling. Heavy snow between midnight of 15th and early morning of 16th, averaging three inches deep.—G. J. SYMONS.

COVENT GARDEN MARKET.—DECEMBER 16.

A STEADY demand for articles of general consumption, but no alteration otherwise. Continental goods are freely supplied, with the exception of Pears, which are somewhat early in ripening—a remark which applies equally to those of home-growth this season, such as Nelis d'Hiver, Jean de Witte, and Ne Plus Meuris especially; and Glou Morceau being nearly over.

FRUIT.

	s.	d.	s. d.		s.	d.	s. d.
Apples.....	1	0	1 6	Oranges.....	100	4	0 to 10 0
Chestnuts.....	bushel	10	0 2 0	Pears, kitchen.....	doz.	2	0 3 0
Filberts.....	lb.	1	0 1 6	dessert.....	doz.	1	0 3 0
Cobs.....	lb.	1	0 1 6	Pine Apples.....	lb.	2	0 5 0
Grapes, hothouse.....	lb.	1	6 6 0	Plums.....	4 sieve	0	0 0 0
Lemons.....	100	8	0 12 0	Walnuts.....	bushel	10	0 12 0
Melons.....	each	1	0 3 0	ditto.....	100	1	0 6 0

VEGETABLES.

		s.	d.	s. d.			s.	d.	s. d.
Artichokes.....	doz.	3	0	to 6 0	Leeks.....	doz.	3	0	to 0 0
Asparagus.....	100	0	0	0 0	Lettuce.....	doz.	1	0	2 0
French.....	per bundle	0	0	0 0	Mushrooms.....	pottle	0	9	2 0
Beans, Kidney.....	4 sieve	0	0	0 0	Mustard & Cress.....	punnet	0	2	0 0
Broad.....	bushel	0	0	0 0	Onions.....	bushel	8	0	6 0
Beet, Red.....	doz	1	0	8 0	pickling.....	quart	0	8	0 0
Broccoli.....	bundle	0	1	6 0	Paraley per doz. bunches	2	0	4	8 0
Brussels Sprouts.....	4 sieve	2	0	3 0	Parsnips.....	doz.	0	8	1 0
Cabbage.....	doz.	1	6	2 0	Peas.....	quart	0	0	0 0
Carrots.....	bunch	0	4	0 0	Potatoes.....	bushel	2	0	4 0
Capsicums.....	100	0	0	0 0	Radishes.....	doz.	0	8	0 0
Caiflower.....	doz.	3	0	6 0	Radiashes.....	doz. bunches	1	0	1 8 0
Celery.....	bundle	1	8	2 0	Rhubarb.....	bundle	1	0	1 6 0
Coleworts.....	doz. bunches	2	8	4 0	Salsify.....	bundle	1	6	0 0
Cucumbers.....	each	0	3	1 6	Scorzonera.....	bundle	1	0	0 0
pickling.....	doz.	0	0	0 0	Sea-kale.....	basket	2	0	3 0
Endive.....	doz.	2	0	0 0	Shallots.....	lb.	0	8	4 0
Fennel.....	bunch	0	8	0 0	Spinach.....	bushel	2	0	4 0
Garlic.....	lb.	0	8	0 0	Tomatoes.....	doz.	0	4	0 0
Herbs.....	bunch	0	3	0 0	Turnips.....	bunch	0	4	0 0
Horseradish.....	bundle	8	0	4 0	Vegetable Marrows.....	doz.	0	0	0 0

WEEKLY CALENDAR.

Day of Month.	Day of Week.	DECEMBER 24—30, 1874.	Average Temperature near London.			Rain in 43 years.	Sun Rises		Sun Sets.		Moon Rises.		Moon Sets.		Moon's Age.	Clock after Sun.	Day of Year.
			Day.	Night.	Mean.		m. h.	m. h.	m. h.	m. h.	m. h.	m. h.	m. h.	m. h.			
24	TH	Great Frost, 1-19, commenced.	40.0	31.3	37.6	26	7 48	52 43	58 44	50 40	15	0 9	358				
25	F	CHRISTMAS DAY.	43.4	29.4	36.4	17	8 8	53 8	21 6	51 1	16	0 50	359				
26	S	ST. STEPHEN. Bank Holiday.	43.2	31.4	37.3	18	8 8	53 3	44 7	47 2	17	1 20	360				
27	SCN	1 SUNDAY AFTER CHRISTMAS.	43.0	29.7	36.4	23	8 8	54 3	3 9	87 3	18	1 49	361				
28	M	INNOCENTS DAY.	42.6	29.5	36.0	21	8 8	55 3	19 10	22 4	19	2 19	362				
29	TU		43.9	33.0	38.5	19	8 9	56 8	31 11	5 5	20	2 48	363				
30	W	Royal Society established, 1660.	44.4	31.7	38.1	15	8 9	57 3	morn.	45 5	(

From observations taken near London during forty-three years, the average day temperature of the week is 42.6°; and its night temperature 33.1.

VINE-PRUNING AND WINTER-DRESSING.—No. 2.



MY last paper referred almost entirely to young Vines: a few thoughts may be now seasonably directed to the treatment applicable to older canes, which may have covered the roof for years. This is just the period that amateurs' (that is, unforced) Vines require attention. Vines for earlier work are of course dressed and finished for their resting period. To such these grains of instruction do not refer, as they are already in the hands of competent men who give the necessary attention peculiar to the state of the Vines and requirements. But in the matter of cool-grown unforced Vines no unnecessary delay should be permitted in pruning after this period. A good rest is the best preparation for future work. Winter pruning is frequently unreasonably deferred, and is the main source of the bleeding which so often perplexes the uninitiated in practical Grape-production. This procrastination is traceable mainly to either of these two causes—the owner has not confidence to use the knife himself, or has not a man within call to whom he can comfortably entrust the work. We will seek to help him over the difficulty. In such a case the combined observation of master and man—the exercise of their thinking powers—a sharp knife and a number of the Journal, will aid to a right diagnosis and the treatment to apply suitable to the particular case under consultation.

Vines which on the single rod have reached their full extremity, and have been spurred close in, and still go on bearing, showing no signs of waning vigour and productiveness, prove that past treatment has been right, and that any change of system would be extremely imprudent. Such Vines will be in a border not made of light turfy loam, which nurse up Vines characterised by quick fame and quick failure, but are in more solid lasting stuff of an infinitely better sustaining power. Such Vines will carry short-jointed wood, and show their bunches at the third, or at the most fourth, leaf. Vines in that state invite close pruning—as close as you like; and if the border is dressed every autumn with a thick covering of good spit manure, and lightly, very lightly, pointed-in the following autumn with a dressing of bones and good loam, previous to putting on the manure covering, it is impossible to say how long such Vines will retain their pristine habit of fruitfulness. They are in a first-rate state, and will bear a lifetime. Alter nothing. Stand firm on the plan that serves well. However, only about one vine in two is in that good state.

Let us look at another and common type. The Vines have been regularly spurred for years: they used to bear well, but latterly have failed. They grow freely enough—too freely. They have stont tendrils, large spreading, but thin and rather flimsy foliage, make gross shoots, but are shy at showing bunches, which they only do at the fifth and sixth leaf. Short-spur pruning of such Vines is not the best—the Vines themselves tell that as plain as Vines

can speak. Just take one of the free-growing shoots outside the house, and train it in the full sun to ripen. Shorten it but very little, and ten to one it will show bunches at every eye. The roots of such Vines have eaten out the dainty food of the light turfy border, which has not been replenished by top-dressings, and have gone below on a foraging expedition. They find something, but it is very crude, and require to make much foliage to elaborate, purify, and nourish. They cannot do this under a system of close pruning and pinching. They may be brought back to a state of fruitfulness by spurring, but the remedy must be applied to the roots. Remove old soil and apply fresh, give a moist surface heat by fermenting material, and a network of feeders will soon be there, and may be enticed upwards to any height required. Get these to the surface, and keep them there in sweet nourishing soil, and the top growth will change to short-jointed robustness, and the foliage will become dark, thick, and of leathery texture, of medium size. With that practice, well and carefully done, a young shoot may be trained from the bottom of the old rod, and be treated as a young Vine on the spur plan, and good fruit is certain.

We will assume, however, that this heated top dressing cannot be given (neither should it, except under the eye of a thorough practicalist), and see if Grapes cannot be got by a less simple means—that is, by a looser freer plan of pruning. Let some young shoots be laid-in at intervals much after the manner of Peach-pruning. Spur some, but leave some. In the meantime start another cane from the bottom for a new Vine. Take away surface soil, and replace with a foot of spit manure. Let the new shoot have light. Avoid overcrowding as a scourge, but let it be avoided by disbudding and leaving a few shoots, rather than by letting many push and attempt to keep them within bounds by pinching. There is a vast difference between those two plans preventing overcrowding to be kept in mind. It is a vital difference. It amounts to this: Letting young wood grow freely, but very thinly, instead of letting eyes push in all directions to be stubbed-in continually to get light, but is in three weeks darker than ever. Which is the sensible plan to get fruit from a long-jointed exuberant-growing Vine? Surely by very thin relays of young wood, having light and air to mature it, and a removal of useless rods and spurs. If a Vine will make exuberant growth it must have room to grow. I know of no other rational way of treating it. Let it have room to extend new canes, and light and air to mature them, and I have never yet seen an instance where Grapes did not follow. I am not of those who advocate the spur system on the one hand or the extension plan on the other as being the best under all circumstances. I admit no solitary inflexible rule as applicable in all cases. Each plan is right when rightly applied, and of this the Vines are the best, the surest index. Lead them, if possible, into the condition required, and if this cannot be done, follow their dictates, and profit by their suggestions. A Vine takes an immense time to wear-out by the plan of renewal by young

rods as required, and good root top-dressings of sound food.

To summarise: Vines which make short-jointed wood, which show fruit mostly at the third leaf, and carry thick dark foliage of medium size like the Fig, may be cut-in close to the old wood. Vines long-jointed, showing only at the fifth and sixth leaf, and carry light flimsy foliage like Rhubarb, will be the better for relays of young wood, gradually removing the old spurs and rods, and, above all things, to guard against the remotest chance of overcrowding. That is the best advice I can give to amateurs—advice founded on close and extended observation and a lifetime of practice. In cutting, let it be done clean, square, and smooth, without split or splinter, and a little lead paint rubbed in at pruning time will prevent bleeding at bleeding time.

A word as to peeling the canes. There is a great deal too much of this. It is very nice for a "day's-work" gardener to scrape and peel and pickle a rod a-day. It would often be cheaper to pay him to go to bed. When Vines are clear of filth close-peeling the stems is altogether unnecessary. A tight grasp and rub round by the hand will remove all loose bark necessary to come away; moreover, Vines treated in this way will require less and less bark removed every year. Layer will form on and be interwoven with layer, forming a close covering of fibre which is not without a use. Rods peeled to the very wood one year will look to require it the next—that is, bark does not adhere so closely to wood as bark to bark; and, unfortunately, the peeling and scraping often has gone below the surface of the wood. That can never be done without injury; and, as a matter of fact, I have seen injury almost fatal follow this picking and scraping with a vengeance. If, however, Vines are infested with filth, especially thrips, there must be a careful removal of bark to eradicate the insect pest. Peeling should then be regarded as the lesser of two evils. What does bark do? It preserves the ascending sap at an equable temperature by its non-conductibility: the sap floats under this Nature's covering safe from the sudden fluctuations of heat to cold and cold to heat without. It also absorbs a measure of moisture, facilitating in no insignificant degree the free breaking of the eyes in spring. Smooth glassy-polished rods are almost invariably irregular in pushing the eyes, and the young growth of such Vines will flag under a bright sun, and curl under a low night temperature more decidedly than when the ascending sap is protected by its natural shield. That is because it must be so. The advice, therefore, to my amateur friends (generally desperate scrapers) is to let all the bark possible remain on the Vines, and remove it only to destroy the haunts and germs of insects.

A word on painting and dressing the rods. Sulphur, soot, lime, and clay, mixed with tobacco and soft-soap water, is the orthodox mixture for Vine painting. It is not asserted the mixture has no insect-killing power, or that if it is not syringed off the Vines, it may not in some degree act as a red-spider repellent. If these little pests regard it as a danger signal, and turn tail at the sight of it, well and good. I have used it on one half a house of Vines which had carried a nice crop of thrips, and the other half thoroughly washed the rods, giving them an out-and-out brushing with soft-soap water, about 1 lb. to the gallon, and half of the gallon tobacco water, applying it almost hot—that is, at a temperature between 130° and 150°, and the washing altogether beat the mere painting as a means of insect eradication and prevention. Last year (1873) two vineries had some thrips. The Vines of one were painted, of the other washed. Washing proved the most effectual. Painting will not kill the eggs of thrips, but get a spoke-brush, and set to work with a will, and not many eggs will be left on the Vines to hatch. Scrub the woodwork with the same solution, and force it in abundance into every cranny, holding the syringe by a leather-gloved hand to prevent overheating, and you are on the royal road to success in the insect-destroying campaign. Gishurst compound is a fine article for the purpose to those who want something more fashionable than soft soap. To sum up this part of the "dressing," the verdict is, Paint if you will, but wash the rods first. For myself washing suffices.

Shall I add a word about outside border dressings? Should the border be covered to keep out wet? If the soil is not retentive of moisture, and the whole bulk is well drained with an open subsoil, such shelter is not necessary. It may be dressed with manure, and the rain be allowed to wash its virtues in; but if the drainage is imperfect, or the soil guilty of holding water, cover with shutters, or, failing these, dry

material of any kind in sufficient thickness to absorb as much as possible of the rain during the winter months.—J. WRIGHT.

FRENCH NOTES.

EACH succeeding visit that I make to Paris, while it impresses me more and more with its marvellous beauty as a city, also confirms me in the opinion that I have often expressed—that too much has been made of its public gardens, and that they will not bear comparison with those of our own much-abused and smoky metropolis. The clearness of the Paris atmosphere, the bright sun which so often, when we are enveloped in fogs, lightens up everything in the city, and more especially, I think, the long line of boulevards with their avenues of trees, impress the stranger; while the habit that English people have of grumbling at everything in their own country and praising-up everything connected with other nations, tends to make them think that the superiority must rest with their neighbours. But is it so? Let us look, first of all, at the spaces which our public gardens occupy as compared with those in Paris. Look, for example, at our gardens—St. James's, the Green Park, Hyde Park, and the Regent's Park—why, all the public spaces in Paris might be put into one of them, if we except the Bois de Boulogne and the Bois de Vincennes, which are a long way from the centre of population; while if we go farther afield we have Battersea Park, Victoria Park, and Finsbury Park, the two former especially of considerable dimensions. The Champs Elysées, on the other hand, is but a narrow strip; the Tuilleries gardens are small; and the other public spaces, such as the garden around the Tour de St. Jacques, the Square Montholon, are very tiny indeed. Then, if we regard that which, in England at least, is considered the *sine qua non* of park scenery, fine foliage—where in Paris can you equal the grand old Elms of Kensington Gardens, or the foliage of the other parks? We hear a great deal of the Horse Chestnuts of the Tuilleries, and in early spring they are very beautiful; but their beauty is soon gone, and in the height of summer, when our parks are grand in their leafy beauty, these are withered and the gardens littered with their falling leaves. In the Parc de Monceaux, which though very small is the prettiest of those in the interior of Paris, there are some fine trees, but nothing in comparison with ours. But then someone will say, "The Bois, as the Parisians delight to call it—surely that is something we have not." But the Bois is some distance out, it is beyond walking distance; and since the Prussians destroyed part of the wood nearest the city it is even further still. And when you do get there, although prettily laid out, there are no large trees. You have cascades, and lakes, and cafés, and Prie Catalans, &c., but grand umbrageous trees there are not; and in all the French forests that I have seen—St. Germain, Fontainebleau, Chantilly, &c., their beauty is much spoiled by the formal manner in which the roads are made. The straight avenues are very distasteful, and one misses the grandeur of our noble English woods. You cannot but smile when they point out to you some grand monarch of the woods and compare it with your memories of home trees. Nor can it well be otherwise: wood fuel is so great a necessity of France, that the forests must fall beneath the woodcutter's axe, and hence that which constitutes the pride of our woods is absent from them. However, this is a digression, and I must only repeat that, as far as size and tree-beauty are concerned, we are far beyond the French capital in our parks and pleasure grounds.

And now as to flowers. If in the former case we have simply relied on the accidents of circumstances, there can be no question that in the matter of out-of-door planting of tender or half-hardy plants the example has been set us by our French neighbours. It is they who first utilised the Cannas, Caladiums, Ricinus, Wigandias, &c., which have made so wonderful a change in the outdoor planting of our days. But at the same time I must say we have been ready learners; and although Barillet and others did much, I think we may say Gibson and others on our side of the water have done more, while the carpet bedding has assuredly (if that be any merit), been our introduction; and I can with all confidence say that there is nothing now in Paris to be compared with the grand bedding-out of Battersea or the gorgeous displays in our other parks. Indeed, there has seemed to me of late years, save the miserable war which has for a time so paralysed France, a great falling-off in the quality of the bedding-out. Cheaper, and at the same time less effective plants have been used, and the general appearance of the public gardens is, therefore, not so good as under the Empire.

There is one thing which as a lover of flowers I always envy Paris for, and that is her flower markets. When I consider what we can produce, what gorgeous plants our nurserymen rear, and then think of the miserably narrow place which is appropriated to plants in pots in Covent Garden, I confess that I am ashamed of our shortcomings; and the worst of it is that there seems no remedy. I do not know whether the improvements made in the Market will affect flowers as well as fruits and vegetables; but when one walks through the flower market in the Place de la Madeleine or on the Quai, and sees how deftly the Roses, and Pomegranates, and Mignonette, and even the Ox-eye Daisy, are arranged in their white-paper envelopes, and sees the good housewife tripping off with her cherished treasure, I always wish that we had some such way of setting-off the fine plants we can produce.

And passing from flowers to seeds is a natural transition, and so let me say a few words on the very complete and admirably arranged seed-stores of Messrs. Vilmorin & Cie. at Reuilly which they have recently erected for their increasing business. It lacks, indeed, many of those features which in the Messrs. Suttons' establishment at Reading mark their philanthropic views as well as their business habits; but in those niceties of details in which the French are so strong these new stores are remarkable. As an instance of this let me remark that no two varieties of any one vegetable or flower are placed near to one another. Thus, instead of having compartments of various kinds of Carrots, as I have seen them one after another, a compartment is filled with Turnips, the next with Carrots, the next with Cabbage, and so on. These stores are well worth a visit; but let me caution intending visitors to go to Reuilly, not Neuilly, as they are at opposite extremes of Paris.

Seeing as I did the Paris fruit markets at a later period than usual, I was struck with two things—the wonderful abundance of the fruits, and their general inferiority. The Grapes are plentiful and sweet, but then they are not either Muscats or Black Hamburgs. The greater number of the Pears were Duchesse d'Angoulême, quite a second-rate variety, and the Apples lacked the briskness of our own; but the Figs were delicious, and the Strawberries, "fraises de quatre saisons," highly flavoured and abundant; and one wonders why it is we never see Strawberries in October in Covent Garden.

Such are my rambling notes. They may interest some; and at any rate, when the cry is made "They do these things better in France," before it is applied to horticulture I hope I have said enough to show that some doubt may reasonably be expressed on the point.—D., Deal.

OUR ANEMONES.

Of all the flowers natives of our own country as well as imported, none, to my mind, are more interesting than the beautiful Anemones that in many parts of our own land cover acres with their handsome foliage and cheering white flowers, I mean *Anemone nemorosa*; then we have *A. apennina*, the blue species, one that ought to be in all gardens. In the spring no flower can be more beautiful; it appears to thrive in most places. There is also *A. blanda*, of more compact growth but equally beautiful, and coming into bloom earlier than *apennina* (imported). There is, too, that charming gem, *Anemone ranunculoides*, seldom seen except as a variety, which I am afraid it will remain. A shady rockery with a south aspect, moderately moist but thoroughly drained, and attended to with water when required, in a compost of loam, leaf mould, and sandy peat in equal proportion, will be likely to meet its requirements.

I believe the nearer we approach the natural circumstances that plants are found under the greater will be our success in their cultivation. The Double-white Wood Anemone is another of those neglected border plants to which I would direct attention. To see this plant as it may be seen in the early spring at the rectory at Kirk Deighton, near Wetherby, Yorkshire, on the limestone, brought there by Mr. Duncan, the worthy gardener, from Scotland, fifty years ago, is a sight to be had in remembrance.

There is, too, *A. pulsatilla*, far too seldom met with in our borders. It does not increase readily, requires time to get established, and should not often be disturbed; good loam and well-decomposed vegetable matter, with a little coarse sand, full exposure and a moderately moist situation, will suit it. I have never been able to increase it by seed.

I wish to direct attention to those glorious Wind-flowers

that we cannot call our own that so delight us in winter and early spring with their charming colours. They are of easy culture; a moderately dry border or bed will suit them, well prepared by mixing with ordinary garden soil, some good loam, leaf or decayed vegetable matter, a little peat, and coarse sand, with good drainage. The soil should be broken up to the depth of 18 inches some time before planting, so that it may be thoroughly prepared. If they are thus cared for and attended to with water when required they will be likely to succeed. Some people leave them in the ground to take their chance, but I prefer to have them lifted, cleaned, and replanted in the latter months of summer and autumn.

The double varieties of the tuberous kinds may be treated in the same way. They are easily increased by division of the tubers, and by seed. I have known them to be rather troublesome in Box edgings when the seed has been suffered to be carried by the wind to places where it was not wanted.

They are a numerous family widely distributed. The tuberous kinds are well adapted for pot-culture, and may be potted in the autumn, plunged either in a cold pit or sheltered corner, and brought on gradually in early spring. Placed in a cool greenhouse they cannot fail to repay the little labour they have required.—*VERITAS*.

ELECTION OF FRUIT TREES.

ACCORDING to your request I have much pleasure in handing you the names of the Apple, Pear, and Plum trees that have done best with me out of the many planted.

Apples, Dessert.

Ribston Pippin	Noupareil
Cox's Orange Pippin	Thorn Pippin
Shepherd's Fame	Irish Peach
Pursemouth	Shakespeare
Lady Wemyss	Cambsuethen Pippin
Sir Walter Blackett	Summer Strawberry

Apples, Kitchen.

Rock Pippin	Cellini
Oslin	King
Lord Suffield	Fail-me-never
Ryder	Dumelow's Seedling
Emperor Alexander	White Leadrington
Hawthornden	Beauty of Kent

Pears.

Jargonelle	Hazel
Easter Beurre	Crawford's Early
Brown Beurre	Hampton's Bergamot
White Beurre	Williams' Bon Chrétien
Louise Bonne of Jersey	Duck-egg Bergamot
Broom Park	Beurre Diel
Muirfowl Egg	Benzie
Ne Plus Meuris	Autumn Bergamot
Dunmow Brown Beurre	Huyshe's Bergamot
Farrow Cow	Musselburgh Golden Knap

Plums.

Green Gage	Purple Gage
Jefferson	White Magnum Bonum
Nectarine	Red Magnum Bonum
Victoria	Rivers' Early Prolific
Washington	Reine Claude de Bavay
Tay Bank	Bleeker's Green Gage
Coe's Golden Drop	Damson

Might I suggest that, should there be any difficulty in carrying out the election of fruit trees by countries or districts of countries, it might be carried out by counties? If a gardener in any county would undertake the duty he could easily send a circular to a good number (perhaps twenty or thirty) of his brethren, asking for information with reference to what in their experience they find to be, say, the fifteen best dessert Apples, the fifteen best kitchen Apples, the fifteen best Pears, and the fifteen best Plums. If anyone would kindly undertake this duty and publish the results in your columns, he would confer a favour on many of your readers.—AN AMATEUR, *Fifehire*.

[We shall be obliged by similar returns being sent to us from other parts of all the British islands.—*ENS.*]

MONT D'OR RUNNER BEAN.

Your correspondent, Mr. Luckhurst, seems to be much pleased with Mont d'Or Runner Bean, and I fear his praise is likely to mislead, for after giving it a good trial in 1873, and again in the present year—that is, 1874, I cannot find it at all superior to ordinary French Beans, which when cooked well can be sent to table of a pleasant colour, whereas Mont d'Or, which is a continental variety, and was in the hands of the

London trade a year before it was sent out, is when cooked with the utmost skill only a dirty yellowish green, neither yellow enough to look like marmalade, nor green enough to please the eye.—JOHN BESTER, *Pine Apple Nursery, Maida Vale.*

NOVELTIES IN THE ROYAL GARDENS, KEW.

SENECIO MACROGLOSSUS an interesting and rare novelty, is flowering in the Succulent house. A superficial observer without seeing the inflorescence would at once pronounce it an Ivy, so close is the resemblance, particularly in the form and veining of the leaves. The flower-heads are very ornamental and last a considerable time; they are golden yellow, about 2 inches across, with but a small centre of tubular florets. It is a native of the Cape, and requires greenhouse temperature. Cuttings are easily rooted. The cultivation is very simple, so that no special instructions are necessary. The above is an example of plant-mimicry—when two species not related so closely resemble each other that they might be mistaken for the same. Even the scrutiny of the botanical eye has been deceived; a specimen without flower was described for a genus to which it has not the slightest relationship. Several suggestions have been advanced for its scientific explanation, but nothing clear and decisive has yet been given. Without diving into detail we cannot perhaps do better than quote a sentence in the "Popular Science Review," written by Mr. A. W. Bennett. He has recourse to the "doctrine of design," and says that "Nature has some general purpose in the different modes in which life is manifested; a purpose not in all cases for the immediate advantage of the individual species, but in furtherance of some design of general harmony, which it may take centuries of unwearying observation and laborious toil before we discover the key by which we may be able to unlock it."

Asparagus decumbens, a species of pretty slender growth, is here in flower. The stems are numerous, and, mingling together, form a mass of lively green. The flowers are small, but sprinkled numerous and with pleasing effect over the entire plant. They have cinnabar red anthers, contrasting with the white perianth. The perfume is agreeable, and not unlike the lemon-scented *Verbena*. It may be increased either by seeds or division, and is worth cultivation wherever variety is desired. Rich loamy soil should be used. Here may be noted a point of interest: The leaves of *Asparagus* and other genera of the tribe *Myrsiphyllum*, *Ruscus*, &c., are always developed in the form of a minute membranous scale. In their axils are one or more branches, which perform the function of true leaves, and have more or less their appearance. For true leaves they are usually mistaken, and for them are often described.

If a digression from our heading can be allowed, it is impossible not to mention *Luculia gratissima*, which is magnificently in flower in the conservatory. It is planted out in a bed of *Camellias*, and in a similar position it should always be cultivated. In pots it may be grown, but with less success and greater trouble. We have before given methods of cultivation, to which our readers can easily refer. It cannot be too persistently recommended to the attention of all who do not make it of great value during winter.

SALTPETRE FOR HYACINTHS.

Now that the time has arrived when lovers of Hyacinths in glasses will have, or ought to have, them consigned to their places of flowering, it may be interesting to know that while the bulb is producing its roots in the water, by applying a little of nitrate of potash (saltpetre) to the water in which the bulb is in, it will in a great measure stimulate growth, and be the means of producing better roots and flower than otherwise would be. Dissolve the nitrate in water, pour it into the glasses when changing the water, which ought to be done at least every two or three weeks. If there are any who doubt this fact, let them apply it to some such thing as Mustard or Cress, which they are likely to be growing in their hothouses about this time, when, I doubt not, they will find it to produce beneficial effects, and I shall be glad to hear of such at some future date. But although all means are taken to produce growth there will be many failures, which will arise from not having the proper bulbs for water. As a rule, single Hyacinths grow much better in water than the double varieties. The water ought to be soft, and when changed not colder than the temperature of the room or the place where the Hyacinths

are kept. Many are the failures I have seen, owing to some ladies thinking if they just had a bulb struck in a glass with the water nearly over the bulb, it was all right.—WILLIAM LAURIE, *Lynnwood.*

COLLETIA CRUCIATA.

A SHORT time ago it was noticed that this shrub had flowered somewhere under glass, and was a highly ornamental object; but is it necessary to keep this plant under glass at all? One we have here (Linton Park, Kent), has flowered for several seasons quite exposed, there being nothing higher than itself for several yards in all directions, and during the autumn it was



Fig. 157.—*Colletia cruciata*.

a mass of flower, and I need hardly say looked exceedingly well from the middle or early part of October up to the 11th of November, when we had a sharp frost, which injured it very much, or rather disfigured the flower to a certain extent, but not entirely so; and notwithstanding the wind, rain, and frost we have had up to the time I write (December 8th), there is still a good sprinkling of flowers on it.

It is certainly strange that this plant should be so prolific in flowers, and the equally formidable, but not so curious, *C. horrida* should flower so sparingly, as I have not noticed a single bloom this season. Both plants being about of a size, and equally open to all the influence of the atmosphere. And to those who have not grown *C. cruciata* I would by all means recommend it to their notice, as its singular formation renders it a highly interesting object every day in the year. Its rigid cruciform construction, armed as it is with spines equally formidable, give it a Cactus-like look, and proclaim its foreign habitat. Yet even there I should think it has more the stamp of a spreading than an upright tree, as the plant we have, which now and then makes a vigorous growth in some of its parts, has a tendency to lie down or spread, rather than push

upwards. It is also with me a deciduous tree, although often classed as an evergreen; but to the general observer it makes no difference, for nine out of every ten who pass it would not notice any foliage upon it, even in the growing season, the foliage is so small and insignificant, and all but lost when seen in contrast with the sturdy flattened stems, which, meeting each other at right angles with rigid accuracy, form the structural features of the plant, and give it importance and interest in all who admire singular-looking plants. Where a collection of trees and shrubs is made, this ought never to be omitted, provided the situation be at all a dry one; for I hardly expect it to prosper in one of a contrary description.

It is only fair to say that extraordinary hard frosts may kill or at least injure it. One we had, and which had attained some size before the hard winter of 1866-67, succumbed to the severity of the frost that season, but the present one has stood unprotected ever since that time, and in the past season was entirely covered with its white blossoms, which look equally well either in a bud or expanded state. I believe it originally appeared as *Colletia bictoniensis*, but has latterly been more properly called *C. cruciata*, and hails from that country so prolific in formidable-armed plants, Mexico; and presuming its growth to be in accordance with what may be expected of it in its native country, it must make a fence impenetrable either to the human race or wild animals. Its contemporary *C. horrida* is also a touch-me-not plant, but lacks that peculiarity of structure which gives *C. cruciata* a feature differing widely from everything else I know of growing outdoors, and equalling in many respects the singular formation of many of the succulent plants which inhabit our houses, which I expect at some future time not far distant may again become fashionable.—J. ROBINSON.

REPLANTING WOODLAND.

In 1859-60 an enclosure, which had been recently cleared of Larch trees (except a few of the finest and best-grown, which were left, and are now standing), was replanted with Larch. These grew vigorously up to 1868, the very dry year, when many of them showed symptoms of a check. The year following there was a slight improvement in the growth, but since and up to the present at least one-third of the trees have made little or no growth, and comparatively few have made a fair and healthy progress. During the period a good many Sycamore, Ash, and some Oak have come up spontaneously, and are healthy-growing trees. The land is of better than average quality, and would not have been originally planted with trees but for a special object. The Larch which were fallen on it in 1858 were generally well-grown healthy trees, some reaching to from 40 to 50 feet cube. The following appeared in a contemporary a few years ago:—"I never knew a single instance where a new plantation was made on ground that had been previously occupied with trees that ever succeeded unless the whole of the ground was trenched over as deeply as the roots of the trees removed had gone, and every root as thick as a person's finger got out. . . . The result is generally this: The young trees for a time grow, but in two or three years they begin to look sickly, and die off. On examining the roots they are found to be destroyed by a fungus, which has done Nature's work in assisting the decomposition of the dead roots, and, for want of a further supply of food, attacks the living ones, which, in turn, succumb to its encroachments.—T. BAINES."

It will be observed that in the present case the trees had been planted eight years before any unhealthy symptoms appeared. I should state that the ground was not trenched, and the growth of the trees was much more rapid in proportion after the first three years than before, owing to the strong vegetable undergrowth they had to contend with at first. The stools and large roots of Larch of the age and size of those fallen would, however, be much longer than three years in decaying. I should have considered the observation of Mr. Baines almost conclusive as to the cause of the second crop of Larch failing if I had not had some considerable experience with regard to growing timber, especially Fir plantations.

If the decaying roots of trees removed were so prejudicial as would seem from his opinion, the periodical thinning of all well-managed plantations would tell injuriously upon the trees left standing, the roots of the removed trees being always left behind; this, however, is not the case, but on the contrary I have found nothing more beneficial to the growth of plantations than judicious and periodical thinning, and this is not confined to very young trees. I am aware, as a rule, it is not

desirable to crop land twice in succession with the same crop; but in the present instance I was induced to replant with Larch, as the most useful and speedily-profitable timber. I may mention that the few Larch left standing have been gradually showing symptoms of decline since the others were fallen, but I attribute this to being subjected to exposure they had not previously been habituated to. Perhaps the observation and experience of some of your readers may throw light upon the subject.—V.

ROSES SELECTED.

I HAVE received a letter from a lady in Ireland ("M. H. B."), who complains of scant information as regards Roses in THE JOURNAL OF HORTICULTURE, but she is certainly wrong about the "Election of Roses." If she will order the number published Oct. 1st she will see there the opinions of amateurs as regards the best fifty Roses, including the best twenty Roses. She wishes to know my opinion of the best Roses of the last two years. I buy "infants" very rarely, as my gardens are so exposed to violent winds. In the late gale 109 feet of a new brick wall (south aspect) was blown down and squashed eighteen of my best Peach and Nectarine trees.

I will name a selection of Roses, beginning with those of 1864, which I find to be good, of good growth, and of good constitution.

1864.—Achille Gouod, Dr. Andry, Duchesse de Caylus, Marguerite de St. Amand. 1865.—Abel Grand, Alfred Colomb, Fisher Holmes, Mlle. Marie Raby, Prince de Porcia. 1866.—Black Prince, Felix Genero, Annie Wood, Princessa Mary of Cambridge, Madame Margottin, Tea Rose. 1867.—Elie Morel, Baroness Rothschild. 1868.—Duke of Edinburgh, Madame Creyton, Thyra Hammerick, Edward Morren.

I do not know the exact dates of the following, but I can safely recommend them—namely, Baron Chaurand, Maxime de la Rocheterie, Countess of Oxford, Etienne Levet, Claude Levet, Vicomtesse de Vezins, and Mr. Veitch's beautiful and valuable high-coloured Tea Rose the Duchess of Edinburgh. The Rose is A1, and the growth excellent. I have other novelties, but the plants are as yet weak, and the summer was very trying for infants. Next season I hope to be able to speak favourably of Van Moltke, Diana, Peach Blossom, and St. George.

Preceding 1864 (in 1863) there came out three Roses which it is impossible to praise too much—Pierre Netting, Madame Victor Verdier, and Leopold Premier. I thank the lady for her confidence in my recommendations. I never recommend bad growers or reluctant bloomers, and I do not like judging "infants" hastily.—W. F. RADCLIFFE.

TILLANDSIA LINDENII.

In several cuts of the above-named plant that I have seen it has always been represented as throwing up only one spike of flower at a time—viz., from the heart of the plant. I have a plant under my charge which has produced three spikes, one from the centre and two from the axils of the leaves. Is this unusual? The glowing descriptions invariably given of this charming plant when exhibited, and the flowers being of a colour (blue) so much wanting in exotica, makes me anxious to become more intimately acquainted with this floral beauty. The centre spike has a very strong spathe promising to open at least fourteen flowers; the other two are not sufficiently advanced for me to determine their number, but all are very healthy-looking. I shall be exceedingly glad if any of the readers of the Journal can enlighten me.—W. C.

SOILS AND SUBSOILS.—The soils upon which the agriculturist has to operate are usually classified as sandy, sandy or light loams, loams, clayey loams, heavy or retentive clays, marls, calcareous loams, peaty soils, or bog earths. This classification has reference chiefly to composition and texture, a special chemical composition (silicious, calcareous, &c.), being necessary for the profitable growth of particular crops, and a certain mechanical texture (friable, porous, &c.), suiting best for the permeation of rain and air, and the descent or spreading of special roots and rootlets. Loams, consisting of fertile admixtures of sand, clay, and humus or decayed vegetable matter may be regarded as typical soils, which become, on the one hand, light by a preponderance of sand, and on the other, heavy by a preponderance of clay. But whatever their composition and texture, these soils, geologically speaking, are mainly of

two sorts—soils of disintegration, arising from the waste and decay of the immediately underlying rocks, together with a certain admixture of vegetable and animal *débris*; and soils of transport, whose ingredients have been brought from a distance, and have no geological connection with the rocks on which they rest.

Under the former are comprehended such as arise from the disintegration of limestones, chalks, traps, granites, and the like, and which are directly influenced in their composition, texture, and drainage by the nature of the subjacent rocks from which they are derived. Under the latter are embraced all drift and alluvial materials, such as sand, shingly *débris*, miscellaneous silt and clay, which have been worn from other rocks by meteoric agencies, and transported to their existing positions by winds, waters, or ancient glacial agencies. Besides these there are also soils of organic origin, such as peat earths and vegetable mould or humus, which is to a great extent also of animal origin or elaboration. Indeed, in all superficial soils there is a certain amount of vegetable and animal matter—the decay of plants, the droppings of animals, the exuvie of insects, the casts of the earth worm, and the like, conferring upon them that dark, friable, and loamy character so indicative of richness and fertility.—(*Page's Geology in its Relations to the Arts and Manufactures.*)

A FLOWER MISSION.

FIVE or six years ago a young girl, at that time a teacher, noticed in her daily rambles the great waste of fruit, and especially of flowers, in the gardens of the wealthy. Myriads of blossoms that might gladden sad hearts and tired eyes are allowed to fade through the long summer days, sometimes because their owners are absent abroad; oftener still because of the superabundance resulting from liberal culture. Each week our thoughtful girl came into the great city, always bringing with her a basket or a bouquet of fresh flowers, sure, even on her way from the station to her home, to be asked for flowers by a score or more of little children, ragged, yet with the love of the beautiful in their hearts.

The summer passed away, but not the happy thought born of the summer. In the city are vast numbers of poor suffering souls, not alone in hospitals and on sick beds in narrow straitened homes, but hundreds of sewing girls spending their lives in hot stifling work-rooms in the heavy woollen manufactures for fall and winter trade. Where is their summer? What do they know of Nature's gracious bounty in field and wood, on hill and glade? On the one hand the need, on the other the demand and its possible fulfilment. Not only in the fields and woods ready for the harvest, but also in the conservatories and greenhouses, and gaily blooming flower beds of the suburban gardens environing the great metropolis, are countless superfluous blossoms that were not "born to blush unseen," and should not "waste their sweetness on the desert air."

The first Sunday in May, 1869, in several of the city churches a brief notice was read, inviting all having either fruit or flowers to spare, or time to gather wild ones from the woods, to send their gifts to the chapel of Hollis Street Church, which would be open on Monday and Thursday mornings from eight till twelve for the reception and distribution of flowers and fruit to the sick and poor in the city. Any and all who might have leisure and inclination to assist in tying-up bouquets, or in carrying them to their destination, were invited to meet at the chapel on that Monday morning; a curious example of an organisation almost self-created; entirely composed of volunteers; no membership or qualification for membership other than the desire to lend a helping hand; no president, no official red tape; each did that which seemed right and fitting, and in keeping with the beauty and fragrance which, week after week through the long summer, made the old chapel blossom like the Rose. We quote a few words from an account of the first day's experiment: "The first to come were two girls, who, glowing with the air of their country homes, and excitement from the thought of the pleasure they had the means of giving, appeared with baskets filled with *Houstonias*, *Cowslips*, *Violets*, and *Anemones*, nicely tied up in pretty bunches; then two more with basketsful of *Violets*, and again another with field flowers. So far all were personal friends; the next contribution, however, was from a stranger—hothouse flowers and ripe red *Strawberries*. Again, a silver-wedding gift of twelve beautiful bouquets, seeming to the donors the pleasantest memorial they could convey of their own happiness. Again, a Lady Bountiful sent her carriage laden with cut

flowers, pot plants, and branches of flowering shrubs, placing her carriage also at the service of the members—a welcome gift indeed, for it is no light task to carry the large, flat, flower-laden baskets to their destination." This was a good beginning for such a quiet, unostentatious charity: contributions from thirteen sources; distributions to 150 persons.

The work begun under such favourable auspices never flagged throughout the summer. The givers were liberal; the workers also. School children in the surrounding towns made excursions to woods and fields, and sent in generous collections of wild flowers, Mosses, and graceful Ferns. Regular contributions were also sent from private conservatories, sometimes carefully and tastefully arranged in little bouquets ready for distribution, sometimes in huge bunches of individual flowers, easily separated; sometimes a large basket held many varieties of flowers in layers, with moist cotton between; the flowers having been sorted in the gathering, the Pinks, the Roses, the *Heliotropes*, &c., which rendered the work at the chapel much simpler, and lessened greatly the risk of breaking the stems, always to be feared in separating indiscriminate masses. The essentials for work in the chapels were a long table, broad enough to turn the flowers out in heaps, with room for assorting; shallow tanks of water in which to place the bouquets as fast as prepared until the hour of distribution; plenty of string, and scissors and chairs. It is unwise to attempt to work standing; the fatigue is great, and should be lessened as much as possible. Large flat baskets, like market baskets, are the most convenient for carrying the flowers without injury. It seemed as though everyone had been waiting for just this chance; for not alone were the flowers provided, and busy, willing hands to arrange and distribute them, but corporations (supposed to be soul-less) became liberal and generous to an unwonted degree. Railroads transported free of expense the baskets and parcels for the Flower Mission, not only over the roads, but always finding among the *employés* at the stations someone to carry them to the chapel. If the baskets were marked with the owner's name and residence they were returned also by the next train free of charge. Many a basket twice a-week made its journey to and fro in this way from Dedham, Newton, Wellesley, Hingham, Lexington, and even as far as Plymouth. From Quincy twice a-week came two or three huge wash-tubs full of garden flowers and wild flowers. In the gathering everyone united—catholic and protestant, orthodox and unitarian, all for the love of God and His children.

We copy a few statistics from the report of the ladies connected with the Flower Mission at the close of the first season in October, 1869:—

Contributions in flowers	356	Number of towns sending contributions	26
" in plants	39	Number of bouquets distributed	6,718
" in fruit	30		
Number of contributors	106		

Of these 1132 were sent to people confined to the city during the warm weather. The plants were scattered among various homes. The remainder of the flowers were taken to the hospitals and asylums, and sometimes to the gaol and State prison.

In the spring of 1870 the ladies of Cambridge proposed to co-operate with the Hollis Street Chapel by establishing a branch mission for the distribution of surplus fruits and flowers in their vicinity. In 1871 Chelsea followed suit. Thus the country was brought to the city—close to thousands who are never permitted to "go a-Maying," or to look upon the full glory of summer time.

During the second year of the mission the contributions, and consequently the distributions, were more than doubled. Over 11,000 bouquets were distributed, besides 1800 Pond Lilies, chiefly from one friend. These last wrought a "special work of grace" among the denizens of the North End, to quote the words of the resident missionary in that apparently godless region. There were men, and women too, whose hearts seemed like nether millstones, impervious to all good influences, baffling every attempt at sympathy or enlightenment, to whom the sight and smell of the Water Lilies brought tender memories of childhood perhaps, when, young and innocent, they too had gathered the pure white blossoms. The Lily brought to them its message of beauty, grace, and sweetness, rising above the waters, reaching heavenward even from the black oozy depths below. Who shall say that some human heart to-day is not purer for the silent lesson of those Water Lilies? Beauty, the gift of the All-Beautiful as well as the All-Bountiful, is an evangel for ever to human hearts. Surely they need it most whose lives are rendered the most unlovely

by sin and misery. It would be pleasant to give the name and the portrait of the Pansy Man; but the modesty and reticence which so long kept him unknown, save by the sobriquet earned by his lavish gifts, forbid. Literally by thousands were they brought, royal in purple and gold, and every rich strange tint born of hybrid culture. About twenty hospitals and infirmaries were supplied week by week; and many touching incidents might be related in connection with them. It was odd to see the various preferences shown in the hospitals. The men would oftentimes choose bunches of fragrant border lilies; the women almost always wanted roses; if country-bred, wild flowers were the most eagerly sought; in the work-rooms, garden roses, sprigs of trailing Arbutus, sweet Honeysuckle, or boughs of pink-tinted Apple blossoms.

As the weeks wore away, and a kind of intimacy grew up between givers and receivers, special cases were remembered in the making of the little bouquets: to the blind girl always as many fragrant flowers as possible; the consumptive in the clean white hospital bed welcomed the scarlet Geranium, which lent a bit of warm bright colour to the prevailing white of the wards; one young sewing girl always begged for Lilies of the Valley—it seemed easier, she said, to sew the long white seam with the delicate white flowers keeping her company.

The report of the physicians connected with the hospitals is most encouraging. They say it is a great aid to convalescence when the patients have something to divert their thoughts from their own suffering, and nothing answers that purpose so well as the fresh beauty and fragrance of flowers. In Chelsea many of the physicians send in list of special cases in their practice where such gifts would be particularly beneficial: oftentimes, they say, the fruit sent is the best of agents in hastening recovery.

Among the pleasant records of the mission are the visits to the Bennett Street Dispensary, where many poor sick people go for advice and medicines—often two hundred patients in the course of the day, each waiting their turn, and weary waiting it is. The surprise and delight manifested when the flowers are distributed among them must be seen to be appreciated. Many touching letters have been received from hospital patients and from the workrooms. A brief extract from one of the latter is given:—"I think our Heavenly Father must have put it into some sympathising Christian heart to thus remember the toiling ones—we who are shut up from morning till night, and see but little of Nature's beauties. I, for one, very deeply appreciate the gift of flowers. As I looked at them I thought, 'What is the message they have brought me?' Something within me seemed to say, 'To comfort you, to whisper hope, whenever your faith grows dim!' Christ must have loved flowers, for He gave a lesson to His disciples, 'Consider the Lilies.' I have been considering them all the afternoon. These flowers shall fade, but the Great Master speaketh to me and saith, 'Go, say kind words, and do kind deeds to your fellow men, and cause beautiful flowers and love and trust in God's goodness to grow up and blossom in their dreary pathway, and remember that whatsoever ye do unto the least of these My brethren, ye do it unto Me.' . . . I thank the Mission for the flowers. They did me a world of good, turning my thoughts from the daily drudgery of life to something nobler and better. With the gratitude of a weary toiling sister."

One thing of special note in connection with this Flower Mission is that none having put their hand to the plough seem to look back or loose their hold. Sooner or later we trust every town and city, every country village, will have its Flower Mission.—(*Harper's New Monthly.*)

GARDEN LABELS.

I AM sorry not to observe among the many suggestions in the Journal respecting garden labels any reference to the imperishable labels brought out by Mr. Bell, formerly of Stratford-on-Avon, and now of Pevensey Road, Eastbourne. I used to paint slips of wood, and mark them before the paint was dry with a lead pencil, as one of your correspondents recommends; but I found in course of time that the lead mark disappeared, or became almost illegible. Looking for something less disappointing, I lighted upon these labels, which I have now tried for some years, and can certainly recommend to others. They are made of a white lustrous metal, which seems well suited to withstand the action of the weather, and is unaffected by cold or heat. The names of the trees, &c., to which the labels are attached are in black-faced letters raised from the surface, and

are thus rendered more distinct than they would otherwise be. No doubt the wooden labels painted and marked with a pencil are the most useful for temporary purposes, but for a permanency for trees, shrubs, roses, and such like, I prefer Mr. Bell's. I notice that the inventor states that his labels have been supplied for the Royal Avenue of Wellingtonias in Windsor Park.—E. BARTRUM, *Berkhamstead, Herts.*

THE D'ARCY SPICE APPLE.

I wish to draw attention to this, probably the very best of all dessert Apples, and I think one of the least known.

The D'Arcy Spice is a local Apple, raised some years ago at Copford, near here (Colchester) by a Mr. Cobb, a farmer, or something of that kind, and it was distributed by him to his friends. Some being taken to Tolleshunt D'Arcy, they were found to succeed so well on that soil, and so many being grown thereabout, it became locally celebrated as the "D'Arcy Spice." This, then, is the history as I was told by a son or grandson, I forget which, of the Mr. Cobb above-mentioned.

Unfortunately this Apple was not brought out by a nurseryman; if it had been there would have been a chance for its excellencies being better known. So little has it been distributed that I cannot call to mind any tree further than twenty miles from the place of its first growth, and there and in the immediate neighbourhood every garden has its "Spice;" but I must except those trees, and there are many, that have been sent by officers of this garrison to their friends.

There is an Apple (Baddow Pippin) somewhat like it in Dr. Hogg's "Manual," but the description does not quite agree; and should your questioner feel disposed to make a trial of D'Arcy Spice, I would recommend him to plant as many trees as he has space for, especially if he has heavy soil, and I am sure he will never regret it when he tastes the first Apples that ripen; which, by the way, they never do until November. At the same time I may inform him a letter addressed to Mr. Cant, the well-known Rose-grower, will put him in the way of getting a supply of any quantity of young trees.—HENRY LAYER.

[We have no doubt that the D'Arcy Spice Apple is identical with the Baddow Pippin of the "Fruit Manual," notwithstanding the slight difference of the short description given in the third edition of that work, a difference which in all probability is so slight as to be attributable to soil or situation. In the forthcoming edition of the "Manual" a lengthened and more minute description is given. This Apple may be obtained from any large fruit-tree nurseryman.—Eps.]

ROYAL HORTICULTURAL SOCIETY.

AWARDS of the Fruit Committee during the year 1874:—

AT CHISWICK.

VEGETABLES.

Bean, Carter's Mammoth	Long-pod	Carter & Co.	July 10.	1st-class certificate.
"	Seville Long-pod	Vilmorin et Cie.	July 10.	1st-class certificate.
Potato, Barron's Perfection	"	R. Farquhar	Sept. 10.	1st-class certificate.
"	Bountiful	"	Sept. 10.	1st-class certificate.
"	Cattell's Eclipse	J. Cattell	Sept. 10.	1st-class certificate.
"	Dwarf White	"	Sept. 10.	1st-class certificate.
"	Early Dumisk	R. Farquhar	Sept. 10.	1st-class certificate.

AT SOUTH KENSINGTON.

FRUITS.

Grape, Mrs. Pearson	"	J. R. Pearson	Nov. 11.	1st-class certificate.
"	Veun's Seedling	"	Aug. 19.	1st-class certificate.
Musa, Champa	"	J. Woodbridge	July 15.	1st-class certificate.
Pear, Leonor de l'Assomption	"	R. H. Chiswick	Sept. 2.	1st-class certificate.
"	Lucy Grieve	"	Oct. 23.	1st-class certificate.
"	Pitman-ton Duchesse	"	"	"
"	d'Angoulême	Rev. G. Kemp	Oct. 23.	1st-class certificate.

VEGETABLES.

Tomato, Carter's Green Gage	"	Carter & Co.	Oct. 7.	1st-class certificate.
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NEW BOOK.

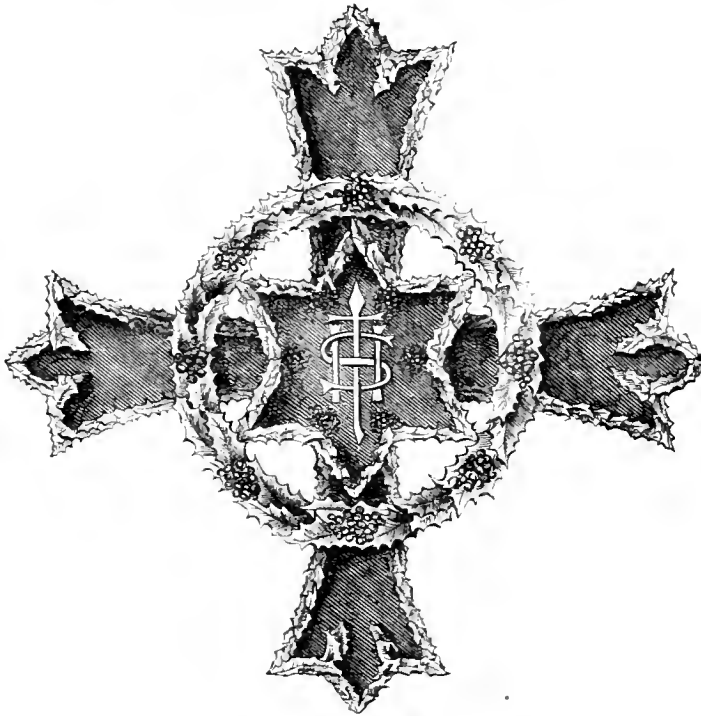
Domestic Floriculture, Window Gardening, and Floral Decorations. By F. W. BURRIDGE. W. Blackwood & Sons. With two hundred illustrations.

Four of those illustrations the courtesy of the publishers enables us to place before our readers, and we do so the more readily because this is the season when our clerical and lady friends are especially attending to the work those illustrations facilitate.

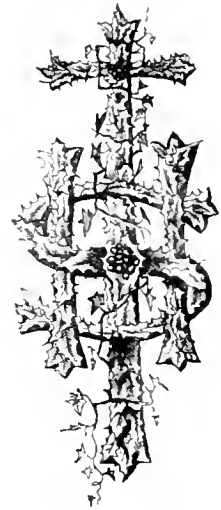
"The introduction of beautiful natural objects into our places of public worship is not done merely to satisfy the eye with

pleasing forms and glowing colours, since any kind of artificial ornaments, provided they are graceful, would do this almost as well as natural flowers. They are introduced, or ought to be used, as appropriate incentives to kindly thoughts and pure religious feelings; hence we should avoid the employment of paltry effects in stained Immortelles or gaudy paper flowers, as being in bad keeping with the object we desire to attain. If we bear the object of church decorations in mind, and endeavour to

or branch, so that by tying in this way every branchlet is looped round twice, and thus firmly secured in its place. Clusters of white Immortelles or scarlet berries alternately are very effective in wreaths of dark green foliage. The twine used for tying should be cut into lengths 6 feet long, and should be looped round the stems without cutting. Longer lengths than this will be awkward to draw through the noose. Green and variegated Ivies, Hollies, and Enonymus, make nice wreaths, as also do



Figs. 158 and 159.—CHURCH DECORATIONS.



attain that object, there will be but little fear of inharmonious combinations, or the introduction of anything likely to offend the good taste of anyone present. All laboured attempts at religious decoration are superfluous, and often spoil the effect one has in view. We use flowers and fruits to give an idea of God's bounty and providential goodness; and the more simple our arrangements are, the more likely is this end to be attained. Simplicity and graceful beauty or elegance are more often synonymous than is generally supposed, and this is especially the

sprays of Portugal Laurel, Aucuba, Juniper, Thuja, Yew, Tamarisk, and Box. Light and graceful wreaths look well twined spirally, round columns, or carried round the tracery of Gothic arches, or the mullions of large windows. For the altar-cloth nothing looks better than a simple cross of silvery Immortelles and Grasses. This should be large enough to stand out clear and bright; but the size will be regulated by the dimensions of the cloth itself. We have tried many devices for the altar-cloth and pulpit; but nothing is better than a bold cross or the mo-



Fig. 160.

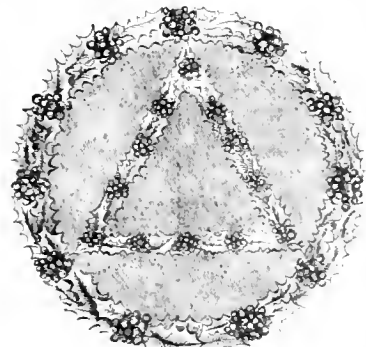


Fig. 161.

case with regard to floral decorations for churches. Wreaths of Ivy and other evergreens are very useful in Christmas decorations, and are easily made on thick twine or cord. Small sprays or little branchlets are preferable to single leaves, as they go further, and are not so stiff and formal as those made with leaves stripped from the stems. To make a wreath, take a branch or spray of foliage, and commence at one end of your cord. Lay the branch along the cord pointing towards the end from which you start, and just loop it round with a bit of thin twine. Now add another spray and loop it in the same way. This last loop should also just catch the base of the first spray

nogram IHS either in white Immortelles or scarlet berries. Texts tastefully formed in foliage and berries look well on scrolls or shields; while neat wooden shapes may be used for initials, monograms, and pleasing geometrical designs, such as crosses of various shapes, circles, or stars. Any carpenter or model-maker will make them in a few hours (see *figs. 158-161*). Some make these designs by glueing leaves and berries on pasteboard shapes. If the cloth is crimson or dark blue the Everlastings stand out clear and bright, and are then very effective. The flowers used in Easter or harvest decorations should be of graceful form, bright or distinct colours, and should be arranged so that the

Individual beauty of each blossom is seen in addition to the general effect. All kinds of Lilies are very suitable, especially *Lilium speciosum* and its varieties. The foliage and flowers of the chaste Trumpet Lily (*Richardia æthiopica*) are unsurpassed for the altar, and last a considerable time after being cut from the plant. A good specimen of this plant, or two or three small ones placed together, look remarkably well arranged on the font, especially if the latter is in a prominent position. Both flowers and foliage are of classic simplicity, and look remarkably well along with stately or architectural details. For harvest thanksgivings a small sheaf of Wheat or Oats looks well and very suggestive laid on the altar table; while tasteful groups of Corn, Lilies, bright-coloured autumn leaves, and fresh green Fern fronds look well on the pulpit or reading-desk. If the pulpit, font, and pillars are of white stone, they look well draped with the Virginian Creeper and Ivy, both of which should be allowed to droop unrestrained in elegant festoons of bright glowing crimson and green; while clusters of Apples, bouquets of Wheat and Oats, or bunches of Grapes, may be introduced here and there with good effect. The silvery or pale rosy plumes of the Pampas Grass (*Glycerium argenteum*), and Arundo conspicua, mixed with branches of the Purple Beech, or the feathery foliage of the Sumach, when tinged with crimson in autumn, are very effective; and stems of Arundo donax or Japanese Maize may also be used for variety. All these are bold and distinct, and look well massed in a picturesque manner along with the glowing scarlet flowers of the Scarborough Lily (*Vallota*), the Guernsey Lily (*Nerine sarniensis*), or the delicate pink flowers of the Belladonna (*Amaryllis*). Group all your foliage and flowers as naturally as possible, and do not attempt anything in the way of unmeaning designs. Ladies, as a rule, do these kinds of ornamentation better than anyone else, and seldom fail to make pleasing arrangements. It is as well to be careful in the use of yellow flowers, as many of these have a glaring or gaudy appearance, not in keeping with the quiet richness of colouring and peaceful harmony of arrangement which should at all times prevail within a sacred edifice."

Let it not be supposed that our extract is from the most valuable portion of the volume, for we recommend it to our readers as a sound, practical guide on all the subjects mentioned in its title-page, and the illustrations are all aids to amateurs not deeply versed in the culture and use of flowers.

ANTS AND IXORAS.

IN the plant stove here we have a great quantity of ants, and not one is to be seen in any other part of the garden. We have searched in vain to find their haunt that we might destroy them, and have tried every remedy we know in the stove, but cannot get clear of them. One of our specimen *Ixoras*, I. Colei, has been severely attacked by the ants completely barking one branch, which, of course, died, and it was quickly perceived if something was not done the whole plant would be lost. The ants had succeeded in making their haunt in the earth of the pot, consequently the plant was taken out of the pot, the ball reduced and repotted again, and plunged in bottom heat, and will I think with care recover. The roots were nearly all destroyed and eaten by the ants. What would be the most effectual remedy?—S. J. A.

NOTES AND GLEANINGS.

THE *English Mechanic* says that any variety of posts can be rendered nearly indestructible by boring one or more holes, larger or smaller, in the centre of the butt, the whole length if desirable; then fill with boiling coal tar and close the aperture with a long taper wedge well driven home, which will give coal-tar pressure to force the antiseptic into the inner heart pores of the mould, where the dormant seeds of decay will be at once destroyed.

— We have been asked to tell our estimate of the Christmas number issued by the *Pictorial World*, and we cordially respond that we think it one of the best and cheapest sixpenny-worths we ever have seen. The pictures, "Family Diamonds" and "Noah receiving the Dove," are worth the money.

LATIMERS,

THE SEAT OF LORD CHESHAM.

THE gentle hills and dales of the eastern border of Buckinghamshire give to the district that pleasing appearance which more bold features often fail to do. Most people admire a piece of water, or a healthy fine-growing plantation all the more, because by its side fields of waving corn or promising green crops adjoin it instead of rock and waste. Such is the

district I am now about describing. Excellent roads and hedges traversing a country that in but a very few instances indeed presents hills too steep for the plough, while but a very small portion of it can be called level. Chalk and gravel being the general subsoil, the latter in some places being too plentiful perhaps for healthy cultivation; but on the whole the district may be considered a very fertile one. It may be regarded as a purely agricultural district, tolerably well, however, dotted over with the mansions of those well-to-do in the world.

The traveller on alighting at Watford from the North-Western Railway will find another train to take him to Rickmansworth without his being able to notice anything remarkable on his journey, excepting in the distance on both sides trees in more than ordinary abundance, indicating that some nobleman's or gentleman's mansion may be enclosed from view; but as we approach Rickmansworth a lesson may be learned, which may very likely be copied with advantage in some other county, of the mode that Watercresses are cultivated. The stream of water being divided and widened is made to flow over a wide assemblage of beds, separated from each other by elevated terraces of grass land.

Alighting at the terminus of the short branch to Rickmansworth, we take the road leading from thence to Chesham, and in travelling along meet with the features noted above. Noticing at the same time that most of the dwellings we pass are either timber or brick-built, the modern ones of the latter material, while those claiming an existence in the sixteenth and seventeenth centuries were of the timber-framed class, which give such picturesque appearance to so many parts of the centre of England; but many of these show the effects of modern innovation, the overhanging upper storey has often disappeared, and the ancient ornamental plastering has become obliterated by repeated coats of whitewash. We pull up at mine host's of the Bedford Arms, and by his direction make a little detour of the village, which we are informed claims to be the original home of the noble family of Russell, and having a little time on hand are introduced to the church, which contains the memorials of so many members of that ducal house, and cannot but admire the beautiful keeping and quiet repose which pervades the whole, as well as the good taste which has not overladen such a sanctuary with undue embellishment to the exclusion of becoming thought which such a place is likely to call forth; the fine situation of the church is also to be admired. Proceeding onward, and descending the somewhat steep hill on which Chenies stands, we find ourselves skirting a stream of water that flows down the valley, and pursuing this some time we cross it, and find ourselves confronted with one of the entrances to the place we set out to visit, and omitting the principal entrance we pursue our journey until our guide brings us into near proximity of the gardens, and at no great distance from the mansion itself.

Latimers derives its name from the family to whom the manor and its surroundings were given by Edward III. From them it passed by either marriage or sale to the Nevilles, Grevilles, Sandys, and Cavendishes, one of the last-named being its present proprietor.

The mansion is on the side of an eminence facing a valley through which the river Chess flows. The bank on the opposite side, as well as the park, as seen to the right and left, is well wooded. Perhaps some would say too much so; but trees are always an agreeable object, and when it is taken into consideration how few are planted now-a-days compared with what are cut down, it is always pleasing on domains to see venerable as well as healthy fine-looking trees abound. Another feature at Latimers not less valuable, as adding to the features of the place, is the presence of a fine sheet of water in the valley alluded to. The widening, I presume the damming-up, of the river Chess, which has been skilfully done, accomplishes this; and it is also at a convenient distance from the mansion and dressed grounds, which, as has been already described, occupy a suitable position on the side of the rising ground. A series of terraces on the south side, on one of which a neatly-arranged flower garden was a blaze of beauty, is separated by a neat iron fence from the park on that side, while a panel of considerable size on the west side of the mansion was laid out as a geometric garden, with Box edgings and gravel walks, containing the choicest hedging plants; while a sloping bank which formed its northern boundary, and was something higher than the panel forming the main set of beds, was planted with foliage plants, as *Alternantheras*, *Golden Feather*, *Echeverias*, and similar things, so as to form a very pleasing feature, and formed an excellent frame to the

picture on that side, a balustrade forming its boundary on the western side; but both beyond that and also on the east side the pleasure grounds extend some distance, embracing some choice shrubs and Conifers, while the abundance of fine Oaks, by which shelter is given to everything, give the whole the clothed appearance which is so essential a feature in all dwellings having any claim to importance. The principal approach to the mansion is on the east side. The offices, which are very capacious, are on the north side. The mansion itself is also large; a dressed brick of a pale colour, with stone dressing, is what it is built with, and its quiet unimposing tone harmonises well with the surrounding mass of foliage by which it is enclosed, forming, as a whole, a noble residence, wherein internal comfort has not been sacrificed to outward display.

The kitchen garden and forcing houses are handy to the mansion; a walled-in space of considerable extent, with the usual slips and other outside appendages, are all conveniently placed for utility. The general contour of the ground sloping gently to the east, and the walls being plentiful, are duly made use of in the growth of the finer fruits, while the glass structures are all fully occupied. One house especially, detached from the rest, struck us as being remarkable; it was a span-roofed vinery, small in every sense excepting in the size and number of bunches of Grapes growing in it, and in this respect it was certainly most remarkable, and was justly regarded so by many good judges that happened to be there at the same time, some estimating the total weight of fruit to approach 600 lbs., and that in a house apparently not more than 40 feet long by 12 feet wide; but I speak more by guess

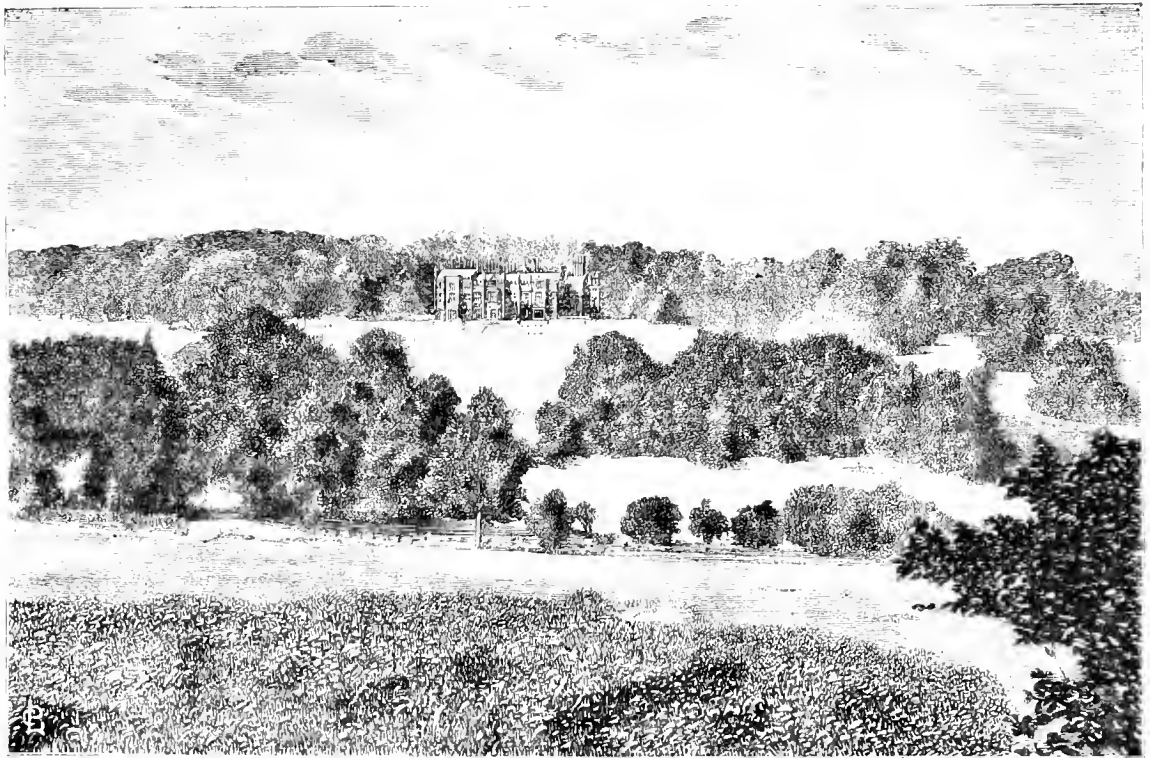


FIG. 192.—HATFIELD.

after leaving the place than by judgment on the spot, yet I never saw a finer lot of Grapes in a small house anywhere. Many of the bunches would weigh 4 and 5 lbs., which is heavy enough for any purpose, and I don't think there was one bunch under 2 lbs. in the house; and the house being low, the whole, or nearly so, were within reach from the central pathway running along the middle of the house underneath the ridge. The kinds grown were Burkhardt's Prince, widely distinct from the ordinary Black Prince; Royal Ascot, very good, better than I have ever seen this variety, which does not seem a favourite amongst Grape-growers; Madrestfield Court, and Alicante, both in excellent form, as was Mrs. Pince's Muscat, which was certainly better than the Barbarossa, although the crop on the latter belied the usual character given it of being a shy bearer, while here it was all that could be desired. The all-important Lady Downe's was also present in good form, as was also the still more popular Black Hamburgs, of which there were some excellent bunches of a deep jet black. White Grapes were Muscat of Alexandria and Trebbiano, both good, and possibly there might be another kind or more; but all being good, the number of varieties is of less consequence. What struck me as being remarkable was the fact that the house in question had produced similar crops for two or three years past without any signs of abatement of quality, more than one of the neighbouring gardeners who had witnessed them affirming this; and certainly taken in all its parts the

whole did Mr. Donaldson, the very able gardener here, the greatest credit as a Grape-grower. I suppose the border in which the roots found a becoming home is the secret of the success; and if we be guided by what appeared to be the general character of the soil of the neighbourhood, a rather dark-coloured loam interspersed with gravel of a flinty kind, but not overdone with this; and at no great distance from the garden I noticed that amongst standard fruit trees Cherries seemed to attain a larger size than they do in most places; while in the park the Oaks were unusually healthy and fine. There were good Grapes also in other houses, and in a house devoted to the cultivation of greenhouse plants I noticed a very fine Camellia, which must at the time when it is out be a handsome object, while other plants were also well represented; but as Mr. Donaldson had removed so many to ornament the large tent in which the cottagers' productions were being exhibited, and the season also being one in which plants in houses are but little cared for, the plant houses were necessarily thinner than usual, but all were in good order.—J. ROBSON.

NOTES ON VILIA AND SUBURBAN GARDENING.

Frost and snow having come upon us in real earnest it is best to stop most of the operations on the ground, for working snow in with the soil or treading upon it when in a wet state, such as it is just now in most places, is calculated to make it work unkindly, and will prove a drawback to successful culti-

vation. It is much best to arrange the work so that the trenching, digging, or ridging may be the last operation, so as to leave the soil uninterrupted in its rough state. It is a well-known fact, particularly with heavy soils or those too much impregnated with manure; nevertheless, even in such weather as the present, not even in small gardens will it do to let things go without some attention, for everything ought to be well protected, if not done as previously advised. The other day in a small garden I saw a crop of both *Mazagan* Peas and Peas well above ground, especially the latter, which were, I should say, 3 or 4 inches high, and looked healthy. Now, undoubtedly if these are not protected, and most thoroughly so too, they will scarcely survive a very severe winter. It is not so much that the frost injures them, though they both turn a yellow colour through the cold, as the sharp cutting winds that have play upon them. I have never advocated the very early sowing of such things, having so frequently witnessed and experienced a failure to procure anything like a satisfactory crop, though they may come some days earlier. The biting winds of about February or March have many times cut the shoots off as if with a knife; therefore when such things are well up out of the ground they must be protected by any means. The next things are Sea-kale and Rhubarb, which if forced on the bed, as many people do, with dung and leaves, and they have started to make growth, the greatest possible care must be paid that the heat does not fall too low, which if the crowns did not rot they would be so crippled in growth as to be afterwards next to useless. Next we come to newly-planted trees, such as those fresh from the nursery, which must at once be protected at the root by rough material of some kind; and in the case of such tender-wooded trees as Peaches, Nectarines, or Figs, it is a good plan to envelope the whole tree in straw bands, or whatever can be best procured, during the severest part of the winter. Where Strawberries in pots cannot be taken entirely under cover, they, too, must be well protected. But there is one thing I should like to mention, and that is that when a period of severe weather breaks up, and a period of mild weather is likely to follow, the protecting material should be immediately taken from such things as Celery, Artichokes, and Strawberries, or such other fleshy plants as have been so treated, otherwise decay soon sets in.

If frames containing bedding and other plants have not been well protected at the sides, they should be so treated at once, and little else can be done; for it will not be safe to open the frames for any operation, except giving air for an hour, if possible, at midday.

The greenhouse and conservatory will now be the places most visited, and the temperature of neither should exceed 50°, unless one or both contain plants of a more tender nature and require a higher temperature; or sometimes such places are the only ones available for bringing Hyacinths, Tulips, Narcissus, Spiraes, Lily of the Valley, and a few forcing shrubs, such as Lilacs, Azaleas, Deutzias, &c. Even then it is not advisable to start them at a high heat—one of 50° will suit at present, with an additional 5° in the day; but they must be frequently syringed, though not so as to deluge them till they have made a fair growth and receive a higher temperature; they ought also to have all the light possible in these short days. The above, if all grown in one house, and that house large enough, they should have the warmest end of it; but when they come into flower, or are so now (such as the early Roman Hyacinth no doubt is, being an early bloomer), it should be placed in the coolest part. Now this class of bulbs are very fast growers, and require a deal to support the noble spikes of bloom they produce; they also make numerous fleshy roots very fast, and they must therefore be liberally supplied with water, added to which must be a little liquid manure just sufficient to colour it. If given at every turn after they have thrown up their spike or bloom-head they will be much improved by it. Camellias, whether in pots or planted out, ought to be supplied with liquid manure frequently, because these plants generally have hard work to push out all their buds left on them into full-blown flowers unless assisted in this way; but it must be understood that there must be a liberal, free, and open drainage under the plants, because stagnant water about their roots not only throws the plants into an unhealthy state, but will be a great step towards making them shed their buds, as many people often complain about in their plants. Where the opportunity presents itself I would advise that in the small greenhouses we often see attached to villa residences a Camellia or two should be planted out, instead of being grown in a pot; they grow into plants so much quicker, because the treatment is more to their natural requirements, and in this way the flowers are more numerous and larger, more perfect in form, and the plants themselves, though not being so cramped at the root, generally maintain a luxuriant and healthy appearance.—THOMAS RECORD.

DOINGS OF THE PAST AND PRESENT WEEKS.

The heavy snowfalls with frost have quite put a stop to operations in the out-of-doors department. The only work that

can be done with advantage is turning the manure or vegetable-mould heaps; or if it is intended to put fresh gravel on the paths, this should be dug out of the ground and sifted. It adds very much to the enjoyment to be derived from a garden if the paths are kept in good order. The most comfortable paths to walk upon are those that are well drained, and having the roughest portion of the gravel placed over brickbats, and some of the finer siftings on the top, finishing off with the middle of the path slightly higher than the sides—just so much that it can scarcely be perceived by the eye, and not at all to inconvenience those walking upon it. When the gravel binds, as it ought to do on such a path, the rainfall escapes to the sides, so that the surface is seldom wet. In wet districts we have seen paths made in a different manner. The gravel is first run through a very coarse sieve to separate the large stones, which are used for the bottom, then through one with a finer mesh to separate the sand and very small stones. This finer portion is not used in the composition of the path at all; the portion remaining will not bind, and is the best path to walk upon in very wet weather. We have plenty of work for the men during a long storm, as our extent of glass structures is large for the size of the place, so that it is cheaper to purchase labour than it is to make them ourselves. Flower sticks we would obtain in the same way if they were made to our liking, but they are always too clumsy, especially the smaller sizes. The best material to make sticks from is ordinary double laths, and a man can make sticks from these laths as fast as he can reduce those that have been made too thick to a serviceable size.

For protecting the plants in frames, pits, &c., mats are used; but a protection that will keep out quite as much frost as double mats may be made from straw, and any handy labourer who had never seen them made could be instructed in a few minutes. A very small portion of straw (any sort will do) is taken up in the hand, and firmly tied at one end, more straw is added to the length until a rope of straw is made as long as the frame to be covered is wide. The ends of the ties are not cut off but left long, so that more straw may be added and tied in the same way, continuing so until the covering is as long as the frame. We have made and used these coverings, and have found them to be one of the very best protections against frost. Two men can make a large quantity of such coverings in a day or two. Pegs should also be made now, and laid aside for use until required. The best pegs are made from Elm branches. The small sprays that are cut off when trimming-up flower sticks are used for this purpose. A number of good Verbena pegs can also be cut out of an old birch broom. Indeed the gardener in his interest will take care that no prunings of Elm, Birch, or Beech trees will be wasted until he has had his supply of pegs for the bedding plants, Strawberry runners, &c.

VINERIES.

The late houses where Grapes are hanging do not require more attention than to keep the atmosphere dry without overdoing it. There would not be much difficulty in keeping the berries from becoming mouldy if the proprietor preferred the berries shrivelled like the dried Grapes imported from Spain. There are two causes that conduce to the fruit losing its moisture so far as to cause the skin to become wrinkled. The first is an overdry state of the atmosphere, caused by continuously heating the hot-water pipes; second, by the border in which the roots are growing being too dry. If this is the reason, not only will the present crop of Grapes be deteriorated in value, but the Vines will be much injured for next season's crop, as the buds will fail to plump-up and become fully developed. This is not likely to happen, however, if sufficient water has been applied during the growing season of the Vines, and a good soaking given as soon as the fruit begins to colour. If through any mischance the border does become too dry, we would rather water after the fruit is ripe than allow the Vines to suffer. It cannot be too earnestly impressed on all the necessity of looking over the bunches at least every week, and cutting-out all mouldy berries. All the leaves have been picked off the Vines both in Muscat and Lady Downe's house, except on two rods of Mrs. Pince's Black Muscat, the leaves of which are not ripe enough. Mrs. Pince is a fairly good Grape, but it does not keep so well as anticipated; it seldom colours well, and nearly all the gardeners who come to look at our fruit say that it sets badly. It sets well in the Muscat house with the same treatment that Muscat Grapes require. In the early house, except keeping up a supply of moisture in the atmosphere, and seeing that the temperature does not fall below 45° or rise above 50° at night (while the weather is so cold) until the buds start, no other attention has been required. Roses or any other shrubs or flowers that have been introduced to force with the Vines must not suffer for want of water at the roots. Unless the pots are over the hot-water pipes not much water will be required; but if they suffer the growths will be weakly, and the usual insect pests will find a more congenial home upon them. Syringing at least every day causes the buds to break freely and strongly.

FLOWER GARDEN AND SHRUBBERY.

Nothing will be done to the flower-beds while snow lies thick

on the ground; but if any of the beds required to be trenched and manured we would do them. The snow could be swept off as the work progressed, and one set of men would wheel the manure while the others continued with the trenching. The depth of snow prevents the frost from taking any effect on the surface. Trenching may be done when the ground is frozen deeply, but it is not desirable. The first thing to do after a steady fall of snow is to look over coniferous and other evergreen trees; any that are in danger of being broken should have the snow shaken from them. We are preparing to plant a few specimen trees by digging-out holes 2 feet 6 inches deep and 6 feet diameter. There is a depth of 9 inches to 1 foot of very light soil, and quite half of it is stones, the remaining portion is gravel, in which no trees will thrive. This gravel has to be wheeled away and loam put in its place. The few trees that have been planted thrive well with this treatment. In the course of three or four years the diameter of the hole requires to be enlarged by 3 feet, which gives a further space of 18 inches wide for the roots to travel into. When coniferous trees have been dug round in this way it has been found that the roots have travelled into the gravel.

Bedding plants are being potted-off from the boxes in which the cuttings were struck. The largest proportion of bedding plants succeed best if they are grown in boxes, but an exception to this is to be found in the different sections of zonal or bedding *Pelargoniums*. These we invariably pot; the smallest plants in 60-sized pots, the larger in 48's. The houses where the plants are placed is kept warmer than a greenhouse, and the atmosphere is dry. We do not require many *Verbena* cuttings this year, else preparation would soon have to be made for striking the cuttings; these do well in a temperature of 55° and a moist bottom heat of 85° or 90°. *Calceolarias* in boxes are still in a cold frame behind a north wall. They were put in late, and only a portion of them seem to be rooted as yet. The lights are protected by mats from severe frosts. As the larger outer leaves of *Auriculas* die they must be picked-off, as they rot and are the cause of decay. We draw the lights quite off the frames if the frost is not severe and the sun shines in the day. Large plants do not suffer if no more water is applied to them until February, but if the small offsets are dry they may be benefited by a little water. We are also careful not to allow any rain to fall on them. Carnations and Picotees require very similar treatment to the *Auriculas*, except that it is very undesirable to allow any of the pots to become dust-dry; but if the soil in the pots was sufficiently moist early in December they will not require water more than two or three times until the first week in February. We air the frames on all favourable occasions.

Hollyhocks and Dahlias are not such universal favourites as they were twenty or thirty years ago, but both plants are indispensable in large gardens, and thanks to such enthusiasts as Turner, Keynes, Rawlings, Laing, Chater, Hawke, and others, very great improvements have been made in them. The *Dahlia* roots should be in a cool shed, but, of course, frost must not reach them; damp is also injurious, and shows its presence by causing a white mould to gather round the neck, which spreads down to the tubers and destroys the incipient growths. *Hollyhock* roots are best planted in a cold frame in light loam; they may be planted quite thickly. Air the frame freely, but protect from rain. Any plants that are weakly, and of which there is not likely to be sufficient stock, should be potted-up and placed on a shelf near the glass in a cool house.—J. DOUGLAS.

TRADE CATALOGUES RECEIVED.

Sutton's Spring Catalogue for 1875.—Amateur's Guide.—Sutton & Sons, Reading.—This is copiously illustrated with excellent chromo-lithographs and woodcuts.

R. Dean, Ealing.—*Catalogue of Choice Potatoes.*—*Catalogue of Primulas and other Plants.*

TO CORRESPONDENTS.

*. All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

BACK NUMBERS (*Sussex*).—You can have them all post free if you enclose 3s. 6d. with your address.

ASHANTEE LEAF (*Rosa*).—Many associations with Guernsey would induce us to aid you, but it is impossible. No one could identify a plant from a leaf such as that you enclose.

DESSERT KEEPING APPLES (*A Subscriber*).—Adams's Pearmain, Dess Pool, Claygate Pearmain, Cockle Pippin, Cox's Orange Pippin, Golden Reinette, Margh, Nonpareil, Ashmead's Kernel, Sturmer Pippin. The tree is a *Fedocarpus*.

PROTECTOR ON VINES (*D. B.*).—The excrescence on your Vines is a true gall, caused by the deposition of the eggs of the destructive weevil *Othiorhynchus sulcatus*, the grubs or larvæ of which you have extracted from the swelled part. The cause of the spreading of the disease to other Vines is simply that of the female insects creeping from plant to plant. The protuberances should be carefully opened and the grubs destroyed, and in the spring the plants should be looked over after dusk, as the parent insects are nocturnal in their habits. They are also very timid, falling to the ground when alarmed, so that it is advisable to lay sheets of white paper under the trees, on which they may be easily seen.—I. O. W.

CROSS-BREDED FLOWERS (*Bayford*).—The most successful mode of obtaining good and very distinct varieties is to employ the pollen from a male flower grown on another plant than that bearing the female parent. To avoid previous and undesired impregnation, the anthers in the female parent, if they are produced in the same flower with the pistils, must be removed by a sharp-pointed pair of scissors, and the flower enclosed in a gauze bag, to exclude insects, until the desired pollen is ripe. Another effectual mode of avoiding undesired impregnation is bringing the female parent into flower a little earlier than its congeners, and removing the anthers as above described; the stigma will remain a long time vigorous if unimpregnated. When double flowers are desired, if a double flower should chance to have a fertile anther or two, these should be employed for fertilisation, as their offspring are almost sure to be very double. To obtain a change of colour apply the pollen from a flower of the same species that has the desired colour.

FOWLS' DUNG (*A Constant Reader*).—It is a very powerful fertiliser. Mixing lime with it is not advantageous. It is applicable to all vegetables.

STOVE (*Erigidae*).—We do not know the stove you mention, and cannot judge between rival inventions.

CHERRY TREES GUMMING (*L. J. K.*).—We advise you to get your trees on the *Cerasus Mahaleb* stock. May Duke is one of the hardiest, and Governor Wood is also a very fine early Cherry; the trees are hardy also. Do not place any manure near the roots unless it is well rotted, but it is not necessary if you can take the following advice.—Dig out a hole 4 feet in diameter and 18 inches deep, remove all the soil, and fill-up with rotted turfy loam. Mix no manure with it, and in this plant your trees. Do not allow the ground over the roots to be dug at all.

TWELVE BEST HYACINTHS (*H. W. S. C.*).—We should select Lord Derby, Jardin des Plantes, Pink Perfection, Gloria Mundi, Nil Desperandum, George Clenny, Antioch, Queen of England, Mrs. George Rudde, Lady Slade, John Salter, and Baron Buns.

IVY BORDER FORMING (*J. K.*).—There is no difficulty in forming an edging or border of Ivy. All that is required is to plant nice young plants of any of the neat-growing kinds, as *Hedera Donnellensis*, *H. taurica* in the green-leaved, and *H. argentea elegans*, a fine variegated kind for edging, planting at 18 inches distance apart, and train the shoots as they grow so as to cover the ground, to meet first, and then to the width required, to which they may be kept by cutting. If small plants, they ought not to be planted more than a foot apart to have an edging quickly. The Moor is a fine dark-zoned *Gemanium*, but Mrs. John Lee has the boldest zone of any, and is a good bushy grower. *Santolina incana* is a neat, dwarf, compact, silver edging plant about 3 or 4 inches high.

APPLE TREES CANKERING (*G. C.*).—We did not intend to denounce your trenching and making the soil deep before planting, but to convey our opinion that when the roots had passed through this, the subsoil being unfavourable, it would help you none in preventing canker in the trees. You were quite right in trenching the soil, not bringing up any of the bad soil, and planting high. By surface-dressings the roots may be kept at the surface, or be induced to extend horizontally near the surface, and so kept from descending into the unfavourable subsoil. Making a hole in hard ground and leaving the other undisturbed is not planting trees, but sticking them in without giving them a chance.

FEARNY AMONGST TREES (*Idem*).—It does not answer to cover the stems of large trees by a bank of rockwork and soil close round the bole. We lately removed several tons of rock and soil from about the stem of a large Ash, the tree having shown indications of injury, and since it was removed the foliage is better. Keep the rockwork clear of the stems of the trees.

TRICHRIS HIRTA CULTURE (*E. S.*).—This fine hardy Japanese plant is not sufficiently hardy for your northern high and cold climate, though, from its free growth, we do not see but that it would succeed as a hardy plant with you in a sheltered spot. We do not think we can improve upon your culture, which each October gives you a plant with "fine foliage, covered with buds, and looking thoroughly healthy," and no doubt it is; but the placing of this and many other hardy plants in the dry atmosphere of a greenhouse or room causes the plants to go to rest and cast their lower leaves—the oldest first, and then the others, one after the other, until nothing remains but the flower-stem and buds. Were you to plant it out it is likely you would have its flowers in perfection in a mild season in winter; or were it placed in a cool house in a light, airy, and moist position, or better still, in a cold pit, it would flower perfectly in early winter and onward. With us it loses its leaves. We treat it the same as *Lilium*, removing to a cold pit in early autumn or a cool house along with *Chrysanthemums*. We think the flowers are very pretty, being so finely spotted with purple on a white ground.

SHRUBS FOR SHADED BORDER (*H. T. P.*).—The best of all is the *Aucuba japonica*, then Tree Box, Butcher's broom, Evergreen Privet, common Laurel, common Holly, and English Yew, with St. John's-wort and Periwinkle as undergrowth, also Ivy. If the ground is not very much occupied with roots and is dry, *Rhododendron ponticum* succeeds fairly, and in some instances we have found *Laurestinus* do well. Plants for the border may be *Alyssum saxatile* compactum, *Anemone apennina*, *A. japonica*, *A. nemorosa flore-pleno*, *Arabis alba* and var. *variegata*, *Aubrietia deltoidea grandiflora*, *Caltha palustris flore-pleno*, *Campanula aggregata*, *C. rapunculoides*, *Convallaria polygonatum*, *C. majalis* var., *Delphinium Belladonna*, *Funkia undulata variegata*, *Helleborus niger*, *Hyacinthus amethystinus*, *Hypericum calycinum*, *Iris germanica*, *Meconopsis cantabrica*, *Myosotis disitiflora*, *Nepeia Mussini*, *Paeonia alba* var., *P. officinalis* var., *Primula acutis* var., *Pulmonaria angustifolia*, *P. officinalis*, *Ranunculus amplexicaulis*, *Spiraea filipendula plena*, *S. japonica*, *S. palmata*, *Dicentra spectabilis*, *Trollius europæus*, *T. napellifolius*, *Viola encellata*, and *Violets* in variety. The border, we presume, is not over-bung, but only shaded by the trees. Ferns that would do are *Osmunda*

regalis well supplied with moisture, *Lastrea Filix-mas*, *L. dilatata*, and vars. of both; *cristata*: *Athyrium Filix-femina* in vars., *Oncoclea sensibilis*, *Polypodium vulgare*, *Polystichum angulare* vars., *P. aculeatum*, *Struthiopteris germanica*, and *Scelopendrium vulgare* vars.

MUSHROOM BEDS FAILING (H. H.).—The failure cannot be attributed to the spawn as Mushrooms have showed, but the spawn being a year old will account for the smallness of them. The fault, we think, rests in the materials of which the beds were made being too dry. They having appeared when the beds were covered with hay, inducing moisture and the Mushrooms to appear, would lead to the conclusion that the beds were too dry, and the atmosphere also too dry and cold. We never cover the beds with hay or anything. In six to eight weeks after spawning the Mushrooms begin to appear, and we then by light sprinklings of water, which has stood in the house twenty-four hours, bring the bed into a thoroughly moist state, and the Mushrooms come up over the whole surface gradually, the bed being seen to about every second day, and all the dry places are damped, and the walls and every available surface is damped. A temperature of 50° to 55° is advised by almost everyone, but ours will not come on at all without a temperature of 60° to 65°, and that it answers we may state that we have beds commencing to bear in October which continue to do so up to May. Your failure we attribute to the dryness of the materials and of the bed when the Mushrooms were appearing, with too dry and cold an atmosphere.

MESSEMERIANTHUM CORDIFOLIUM VARIEGATUM PROPAGATION (C. L. E.). The cuttings strike freely in summer in a cold frame without heat, or in autumn (which is not a good time) and spring in a gentle heat, the cuttings being inserted in sand over very sandy soil, the base of the cuttings just resting on the soil, which may be equal parts sandy loam, leaf soil, and silver sand, the pot or pan being well drained, the compost put in rather firm, and surfaced with half an inch of silver sand. Water gently, and stand to dry for at least six hours, then water again, and after standing another six put in the cuttings so that they are not crowded. A very gentle heat only should be given, and no water, shading from bright sun, and avoid damp. The cuttings are the better of being dried a few hours after making prior to insertion.

ROSES FOR UNDER GLASS (X. N.).—Marechal Niel, Belle Lyonnaise, and Sombreuil. Mackintosh's "Book of the Garden" will meet your requirements; through any bookseller.

SOWING ROSE SEEDS, &c. (M. R.).—The hogs will, we presume, have been gathered. Keep them in a flower-pot in dry sand until the first week in March, and then break them in pieces, and then sow in pots filled with light rich soil, and cover the seeds about half an inch deep. The pots should be plunged to nearly the rim in a sheltered position, or they may be sown in the open ground without pots. Precautions must be taken to keep off mice by fine wire netting, fixed at about an inch from the soil, but coming down to the rims of the pots. The seedlings will appear in May, or not until the second year. When the seedlings have three or four leaves put them off singly, and place in the shade for a few days, and when the pots are full of roots plant out in rich soil in an open situation. The best time to dig the rosetry is in February, or so soon after as the ground is in a favourable condition. The best time to put in Rose cuttings outdoors is in September, the latter part, or early in October, on a north border.

SALT WITH ICE (J. C.).—It is a very old practice, and considered to solidify the ice, but has been found to answer no useful purpose. We find it keep as well without as with salt.

PAINT FOR HOT-WATER PIPES (Item).—Lampblack brought to the consistency of rather thin paint with linseed oil boiled is the best for applying to hot-water pipes. The pipes ought to be made quite hot—as hot as possible, and the pipes then painted, thoroughly brushing it in. It will only smell until it is dry; but if put on when the pipes are cold, every time the pipes are made very hot for a long time the pipes will give off an unpleasant smell. Give air freely until the pipes are dry, or rather the paint. We cannot answer for its effect upon Vines or plants, but do not think with air there would be any injury. Ours are always done when the house is empty.

GROS COLMAN VINE GRAFTING (A. B. C.).—Gros Colman would not, we think, succeed upon Foster's Seedling, which is not so strong a grower, Gros Colman being a very vigorous and robust grower. Lady Downe's would be better, and it is one of the best late Grapes. Foster's Seedling is a tolerable late Grape, keeping in good condition for about two months after being ripe.

ADIANTUM FARLEYENSE WITHERING (Item).—From cold and the dry atmosphere the fronds withers. The atmosphere should be kept very moist, and this without heavy or any syringing overhead at this season, though ours receive a very light sprinkling twice daily, and is not in anywise injured. It is better, however, avoided, maintaining a moist atmosphere by frequent sprinkling of the paths and surfaces immediately about the plants. They should have the soil kept moist.

INSECT (Alec. Gardner).—It is not a perfect insect, but the chrysalis of one.

CRYSTALLISING FLOWERS (M. D.).—We know that it may be effected by dipping them into a saturated solution of alum; the alum forms crystals on them. Will some of our readers send us details?

MANURING PEAR TREES (W. H.).—Decayed stable manure spread in early spring on the surface an inch thick about 3 feet from the stem. Our "Fruit Gardening for the Many" contains full directions for grafting.

VINES FOR VINERIES (Newsorth).—Not knowing how the two vineries are to be heated, nor whether you wish for early or late Grapes, nor, in fact, anything about the vineries or your intentions, we can only say in one viney you may have Black Hamburgh and Lady Downe's, and Bowood Muscat and Trebbiano in the other. The two last-named should be in the warmest viney.

NAMES OF FRUITS (J. F. Smith).—No. 1, Winter Hawthorn; 2, Court-Pendu-Plat. (C. R. S.).—1, Brown Beurre's 2, Napoleon; 3, Marie Louise.

NAMES OF PLANTS (Schubert).—1, *Adiantum*; 2, *Melastoma hevigata* (?) *L.*; 3, *Thysanotus Schomburgkianus* (*Bot. Mag.*, 4551); 4, *Eranthis nervosum*; 5, *Tradescantia discolor* (*Jacob*).—*Peristrophe speciosa*. Fern indeterminate. (*Orchid*).—*Zygopetalum Mackaili*. (*J. G.*).—*Peristrophe speciosa*. (*Winchester*).—*Photinia serrulata*, serrulated-leaved *Photinia*. It is a native of China and Japan. It has been called *Mespilus glabra* and *Crataegus glabra*, and a portrait of it under the name last mentioned is in the "Botanical Magazine." (*C. L. D.*).—1, *Selaigella caulescens* (?); 2, *Scelopendrium vulgare*, var. *proflerum*; 3, *Lastrea Filix-mas cristata* var.; 4, *Aspidium angulare*. (*An Ignorant Lady*).—1, *Adiantum hispidulum*; 2, *Aspidium coriaceum*; 3, *Davallia (Loxocleph) zibberosa*; 4, *Polypodium aureum*; 5, *Nephrolepis exaltata*; 6, *Athyrium Filix-femina*. (*J. Bale*).—We only name

six specimens at once. 1, *Polypodium vulgare* (?); 2, *Asplenium bulbiferum*; 3, *Adiantum Capillus-Veneris*; 4, *Pteris serrulata*; 6, *Adiantum hispidulum*; 7, *Aspidium falcatum*.

POULTRY, BEE, AND PIGEON CHRONICLE.

THE CRÈVE-CŒURS AT ASHFORD.

Your reporter's remarks on the judgment of the French classes are rather severe, and they would be fully justified had the awards been made as they appeared in the prize list and on the pens; but that was not so, for there was an error, by whom I know not.

Whom your reporter refers to as a novice I do not care to ask, but I will venture to assert that the awards in these classes were correctly made; and in justice to my colleague I may say that there were no two opinions as to where the first in Crèves should go, both of us hitting upon Mr. Dring's pen (213) at once, and 244 for second, 245 being unnoticed, and the rest all highly commended; in confirmation of which I herewith forward my judges' book for your inspection. When I left immediately after the adjudications were over I had a catalogue marked, by one of the officials, handed to me, and when comparing this with my book I found the error. Mr. Long was with me in the train, and at once undertook to apprise Mr. Dring of the error; and on my arrival in the City I wrote Mr. Stickings, the Secretary, but I am afraid the letter has suffered the same fate as the catalogue which I posted to you at the same time, and which never arrived at your office.—E. HUTTON, *Pudsey*.

THE EXHIBITION DORKING.—No. 3.

BY T. C. BURNELL.

LIKE any other pursuit, success with prize poultry is only to be attained by paying great attention to numerous small details. Anyone expecting to breed and rear valuable birds without any trouble will be most certainly disappointed, while at the same time I think there is no stock which will so well repay any labour that may be expended upon it.

It is often said, "How lucky So-and-so is," but depend upon it there is very little luck about it, or we should never see the same exhibitors so continually coming in at the top of the prize list. Occasionally, either when birds get into a dark corner or the judges are overworked, a slight error may occur, but such is sure to be rectified at the next show.

It may seem a small matter where and on what our birds roost, but such will not be found to be the case. No very elaborate place is required, and in most stable-yards there is some shed or outbuilding which may readily be converted into a poultry-house, provided only that it is dry and light. If the floor be of brick or stone such had better be removed or covered over with 3 or 4 inches of earth or sand, as cold floors are generally thought to cause disease. One of the most necessary points is that the house should be well ventilated without being draughty. Fresh air cannot hurt anything, but a chilly draught blowing right across the perch is very different. The best way to provide fresh air without a draught is to have two or three good-sized openings in the top of the south side of the house, which must not be too low, and for the perches to be placed some way below the ventilators.

If the house be dark the fowls will not enter if they can possibly help it, while if we have a sliding window it may be advantageously taken out in summer to allow the entrance of fresh air.

The inside of the house should be limewashed occasionally—a simple and inexpensive operation, which will go a long way towards preventing disease, while the floor and perches should be cleaned at least twice a week (better still every day), and chloride of lime, carbolic acid, or some other disinfectant sprinkled about. McDougall's disinfecting powder is very convenient for this purpose, also for sprinkling the nests with, and I believe if these precautions were generally adopted we should hear less of vermin in fowl houses—at all events, I never have such a thing in my own.

As Dorkings are such large, massive fowls, the perch should not be placed too high from the ground, otherwise in descending from roost of a morning the birds are apt to injure the ball of the foot, a fertile cause of the inflammation which is called bumble-foot, and which I will allude to under the head of Diseases. The perches should not be more than 15 or 18 inches from the ground, they should be quite flat, and at least 3 inches wide. I constantly see advice to the contrary, but I am convinced that crooked breasts, though sometimes hereditary, are nearly always caused by round perches, while small narrow perches cause curved and crooked toes. Very young chickens will require special treatment, which I will describe later on.

One house and run will not be sufficient if we wish to keep poultry for exhibition; at least two runs will be required for the breeding stock, and also if possible separate runs for the cock-

erela and pulleta. The latter may be dispensed with, and the chickens allowed to run with the old birds, but certainly not to the advantage of the chickens. A very mistaken idea prevails as to the amount of grass run required for Dorkings; if they have five acres they will certainly make use of it, but my own stock birds have never had more than a run of 10 or 12 yards square for each cock and four or five hens, and have always laid and thriven well upon it, while in the show pen their condition has generally been as good as the best; and this is a sure proof to me that no larger run is required, as if fowls are discontented and restless they will rapidly lose that brilliancy of plumage which so surely tells in the prize list.

A single cock for exhibition may be advantageously shut up in a small place if carefully attended to, but the hens become restless in very close confinement, and do not do well under the space I have named. Small shrubs or fir trees planted in the corners will form a pleasant shade in summer, as also will Jerusalem artichokes, which are to be strongly recommended on

account of their hardness and rapid growth. The fences to separate one run from another in my own case are made of hurdling or "wattling" about 3 feet high, with 3-foot wire netting stretched loosely along the top. I have found this quite sufficient to keep the birds in, as Dorkings usually are but poor flyers. If hurdling cannot be obtained, half-inch boards of red deal to the height of 2½ feet, will do as well, but will, of course, be more expensive. Simple wire netting, however small the mesh, is not sufficient near the ground, as if the cocks can see one another they will fight through it a great deal more than if at liberty, and will never seem to get tired of it, while if at liberty one soon conquers the other, and it is all over except the crowing! If it is determined to try to induce two strange cocks to run together, the only way is to treat them like two school boys, and having put bits of cork on their spurs, to let them "have it out." If you separate them they are sure to be "at it again" immediately your back is turned.

It will be found very much cheaper in building houses to make

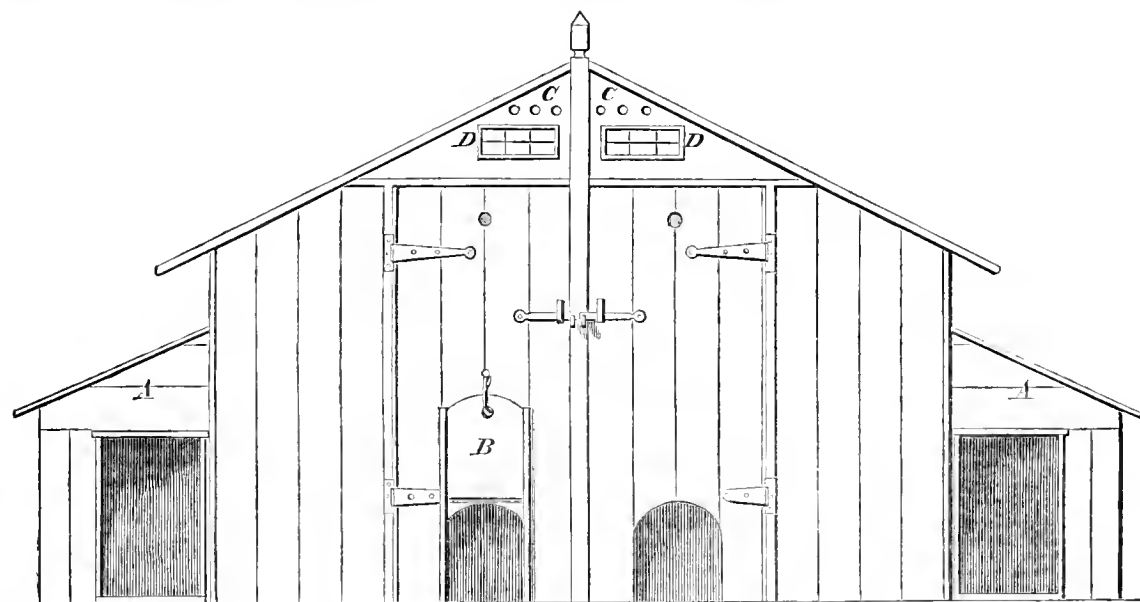


Fig. 163.—FRONT VIEW OF PAIR OF POULTRY HOUSES.

Height at top, 6 feet.
Height to eaves, 4 feet

Width of each house, 4 feet.
Depth, 4 feet.

A, Dusting sheds.
B, Sliding door

C, Ventilators.
D, Moveable windows.

Scale half an inch to the foot.

them in pairs. The accompanying sketch represents the front view of a pair made in the very simplest way, and with the smallest amount of material, and yet I think combining every essential for health and comfort. I have found thin sheet zinc far preferable to felt for roofing, as it is much more durable, and not finding any hold for their claws, the fowls will very soon get tired of flying up on it. A double house of the dimensions described, made of three-quarter-inch deal with zinc roof, should be constructed for about £5 or for less, if, as in my own case, the carpentering be done at home, and really if the planks are already cut out there is but very little carpentering about it, while we shall always think more of our "villa," if made with our own hands. The cracks between the boards had better be covered over with narrow strips of very thin deal, or the boards can be let into one another; but this will be found more expensive.

The little outside sheds are for the fowls to get into in wet and windy weather, and they should always be filled with dry earth or road grit, in which the birds will delight to dust themselves; while being placed outside the roosting houses they will help to keep the birds warm.

ABERDEEN POULTRY AND PIGEON CLUB SHOW.—This Society will hold their next Show early in January. The entries close on the 25th of December. As regards Pouter it will be the Show of the season, the principal breeders in Scotland intending, we understand, to exhibit largely. There are twenty-two classes for these birds—viz., Red, Yellow, Black, Blue, and White, cocks and hens, both old and young, besides two classes for off-colours, one for cocks and the other for hens. We hope the entries will be of such extent as to compensate the Society. Observing that no two of the standard colours of Pouters are to be shown

in one class, anyone having a good bird has every chance of having its merits acknowledged. Mr. Corker, of London, is to judge the Pigeons. This Society has carried on its exhibitions hitherto at considerable loss. The money they cannot afford to lose, but the time and trouble they do not grudge for the advancement of the fancy. This Show will decide whether or not they will be able to continue their exhibitions.

TREDEGAR POULTRY SHOW.

The annual Show of the Tredegar Society was held on Tuesday and Wednesday the 15th and 16th inst. The poultry and Pigeons were exhibited in one of the excellent sheds of the Cattle Market. As last year, so this, Turner's pens were used, and proved much better than the old wicker coops. While in the hands of Mr. Pulling the birds are well attended to by an excellent staff. A few pens were empty, but not near so many as in previous years. Game were a good entry, and the cup for the first eight classes was given to a very stylish pair of Brown Red chickens. Spanish were good, especially Mr. Moore's chickens; but Dorkings were only poor in both classes as compared with what we have seen here. Cochins in both classes were very good, Buffs winning three out of the four prizes, and Partridge chickens one. In old Light Brahmas Mr. Dean won both prizes, as also in the chickens, carrying off the cup also for the section with young birds. Mrs. Roll's pen, said to have won the cup at Swansea, were in bad order; cock bare on the throat, and the hen a bad colour. Dark were good, Mr. Watts securing both first prizes with grand birds; many other pens being noticed. Many pens of Hamburgs showed the effects of overshadowing, this being the case especially in the Gold-pencils and Spangles, while the Silver-pencils and Spangles showed much better, and the cup was awarded to what turned out to be the Crystal Palace cup

cock, a truly grand bird, and yet he only won very narrowly, Messrs. Mitchell and Long coming close. *Polands* good, but not numerous, and *French* a fair lot. In *Bantams* Game were good as far as the winners went, Black Reds being successful, and also carrying off the cup. First and second Blacks very smart and good, rest moderate. In the Variety class of Bantams Silver-laced were first, Booted second, and Gold-laced third. We think the judging of the Bantams very erroneous. Rouen Ducks were a large class, and many pens were noticed, the first by Lord Tredegar were very cheap at the catalogue price. Aylesburys were a fair lot, but not equal to the Rouens. *Turkeys* were 453, 44, and 43 lbs. weight in winners, and both these and the *Geese* were good classes. The Selling classes were immense, but the Duck class poor.

In *PIGEONS* Mr. Yardley won the point cup, but was pretty well run by Mr. Holloway; and the birds were better than we recollect to have seen them, and the entries very good.

GAME (Black or Brown-breasted Reds).—2, G. S. Cole, Llanelly, Carmarthen; H. Banks, Worcester; J. John, Ton Pentre Ystrad, Pontypridd. c, Rev. C. T. Salusbury, Tredegar Rectory, Langibigh, Newport; H. Feast, Swansea. *Chickens*.—Cup, H. E. Martin, Sculthorpe, Fakenham. 2, Rev. C. T. Salusbury, vhc, H. Horton, Colwell, Malvern; G. S. Cole, hc, R. Shell, Cardiff. c, J. W. Jones, Malpas, Newbury.

GAME (Any other variety).—1, W. L. Blake, Llandaff. 2, J. Mason, St. John's, Worcester. c, J. P. Moses, Llandaff, Cardiff; J. T. Brown, St. Austell. *Chickens*.—1, E. Winwood. 2, J. Mason, hc, D. W. J. Thomas, Brecon. c, W. L. Blake; H. P. P. Price, Castle Madoc, Erecion.

SPANISH.—1 and 2, T. Moore, West Butte Ducks, Cardiff. vhc, H. Feast. *Chickens*.—1, T. Moore. 2, Mrs. E. Allsopp, Hindlip Hall, Worcester. vhc, G. K. Chilcott, Esrlawn, Bristol.

DORKINGS (Grey or Coloured).—1, A. Haim, Tredegarville, Cardiff. 2, E. Ponting, Buckland Newton, Cernoe, hc, Mrs. F. Bayard, Gwernyd, Berriew; R. Leysdon, Bridgend, c, Col. F. C. Morgan, Ruperra Castle, Newport. *Chickens*.—1, E. Shaw, Plas Wilmot, Oswestry. 2, R. Leysdon, hc, H. Feast; W. Bevan, Swansea.

COCHIN-CHINAS.—1, E. Winwood, Worcester. 3, H. Feast, hc, J. Watts, King's Heath, Birmingham; C. Bloodworth, Cheltenham; H. Tomlinson, Birmingham. *Chickens*.—1, Mrs. Bidder, Wamechir, Neath. 2, I. Jones, Neath. 3, C. Bloodworth, vhc, Mrs. Allsopp, hc, Mrs. Bidder; C. Bloodworth; H. Tomlinson.

BRAMA POOTRA (Light).—1 and 2, T. A. Dean, Marden, Hereford. vhc, Mrs. Potter, East Court, Cheltenham; J. Watts, hc, Mrs. Rolls, Mowmonth. *Chickens*. Cup, 2, and Extra, T. A. Dean, hc, Mrs. H. J. Bailey, Rosedale, Tenbury; J. Watts, c, Mrs. Harding, Pentwyn, Mowmonth.

BRAMA POOTRAS (Dark).—1, J. Watts. 2, H. Feast. vhc, Rev. J. Cunick, Llanfaes, Brecon; hc, W. W. Cunick, Llanfaes, Brecon; W. Bevan. *Chickens*.—1, J. Watts. 2, E. E. Morgan, Alfred Hill, Bristol. hc, H. Feast; W. Bevan; G. Jones, Goldbourne Hill, Wolverhampton; Bridgewater & Yoxall, Wednesbury. c, M. H. Deso, Cardiff.

BRAMA POOTRAS (Dark).—*Pullets*.—1, T. A. Dean. vhc, G. Dornford, Bryn Hafod, Llandaff; J. Watts; Bridgewater & Yoxall, hc, H. Feast. c, J. A. White, Newport.

HAMBURGERS (Gold-pencilled).—1, C. Bloodworth. 2 and hc, Mrs. Rolls. *HAMBURGERS* (Silver-pencilled).—1, T. R. Mitchell, St. Thomas, Swansea. 2, J. Carr, Swansea.

HAMBURGS (Gold-spangled).—1, J. Carr. 2, T. Blakeman, Tattenhall, Wolverhampton. hc, Mrs. Rolls; T. May, Wolverhampton; I. Davies, Harborne, Birmingham.

HAMBURGERS (Silver-spangled).—Cup, J. Carr. 2, T. R. Mitchell. vhc, J. Long, Bromley Common, c, Mrs. Rolls.

POLANDS.—1, H. Feast. 2, W. E. E. A. Kynch, Abergavenny. 3, C. Bloodworth.

FRENCH.—1 and hc, H. Feast. 2 and c, D. Lane, Hardwick, Gloucester. 3, T. A. Dean.

BANTAMS (Game).—Cup and 3, E. Payne, Cardiff. 2, H. C. Holloway, Stroud, hc, H. Feast. c, E. C. Phillips, Brecon; J. Tarren.

BANTAMS (Black or White, Clean-legged).—1, J. Mayo. 2, J. Watts. 3, B. F. Parrott, Henbury, Bristol.

BANTAMS (Any other variety).—1, J. W. Lloyd, Kington. 2, J. Watts. 3, G. Holloway, jun., London. hc, H. C. Holloway, c, H. Feast.

ANY OTHER VARIETY.—1, T. Southern, Bristol (Black Hamburgs). 2, H. Feast. 3, Mrs. Rolls, hc, Rev. N. J. Bidley, Newbury (White Leghorns); J. Watts, c, Mrs. Potter (Brown Leghorns).

GUINEA FOWLS.—1, Mrs. Rolls. 2, W. H. Young, Driffield, vhc, Mrs. F. Bayard, Gwernyd, Berriew.

DUCKS (Aylesbury).—1, H. Feast. 3, Mrs. Gordon-Canning, Hartbury, Gloucester. c, Col. F. C. Morgan.

DUCKS (Rouen).—1, Lord Tredegar, Tredegar Park, Newport. 2, J. Watts. 3, W. Williams, Brecon. vhc, T. Moore; J. Davies, Bargoed, Cardiff. hc, E. Ponting, Buckland Newton, Dorset; W. Cooper, Abergavenny; R. Leysdon, c, Lord Tredegar.

DUCKS (Any other variety).—1, Mrs. Rolls (Call). 2, Lord Tredegar (Muscovy), hc, Mrs. H. J. Bailey (Call); T. Moore (Call). c, T. Moore (Black East Indian); T. A. Dean (Black East Indian); J. Harrison, Newport (Brazilian).

GESE.—1 and 3, Mrs. H. J. Bailey. hc, S. Hoinfray, Glen Uske, Newport; Mrs. Bidder; D. Jenkins, Christchurch, Newport.

TURKEYS.—1, Mrs. H. J. Bailey. 2, Mrs. Bidder. vhc, Col. F. C. Morgan; J. T. Pinches, Hardwick, Pembroke, hc, Lord Tredegar; J. A. Lyne, Brynhyfryd, Newport. c, T. Moore; J. A. Lyne.

SELLING CLASS.—*Pullets*.—1, T. A. Dean (Light Brahmas). 2, D. W. J. Thomas (Game). 3, A. Sperrin, Bitton, Bristol (Dorkings). 4, J. McConnell, Ewyas Harold, Hereford, vhc, T. A. Dean (Brahmas); B. D. Brooke, Stow Hill, Newport (Gold-spangled Polands). hc, Mrs. Gordon-Canning (Dorkings); H. Thompson, Tredegar, Bridgend (Dark Brahmas); J. A. White, Newport (Dark Brahmas); D. Lane (Houdans); Mrs. Rolls; J. Watts; C. Bloodworth. c, H. C. Holloway (Cochins); N. Hull, Sidbury, Worcester (Light Brahmas); J. A. White (Dark Brahmas); H. Yardley; C. Bloodworth.

SELLING CLASS.—*Ducks*.—1, E. Ponting. 2, J. Harrison. 3, E. Shaw, Plas Wilmot, Oswestry, 4, H. Yardley.

PIGEONS.

CARRIERS.—1, H. Yardley. 2, J. James, Bath. **POUTERS**.—1, W. G. Davies, Swansea. 2, H. Pratt, Hampton-in-Arden, hc, G. Holloway, jun (2).

JACOBIANS.—1 and c, G. Holloway, jun. 2, W. G. Davies, hc, H. Yardley.

TUMBLERS.—1, H. Yardley. 2, G. Holloway, jun. 3, F. Phillips, Newport. vhc, J. T. Price, Abergavenny. hc, W. G. Davies; D. P. Bain, Newport; H. Yardley.

FANTAILS.—1, W. Morris, Ross. 2, J. F. Loversidge, Newport. vhc, H. Yardley, hc, Miss J. Milward, Newton St. Loe; H. Yardley; J. F. Loversidge. c, T. A. Dean; G. Holloway, jun.

TACMPETRES.—1, J. Lederer, Bootle, Liverpool. 2 and hc, G. Holloway, jun. c, W. G. Davies.

ANY OTHER VARIETY.—1 and 3, H. Yardley. 2, D. Lane, Gloucester (Turbits). 4, G. J. Dewey, Gloucester (Yellow Magpies). vhc, W. G. Davies (Archangels). hc, W. G. Davies (Nuns); A. McKenzie, Liverpool (White and Blue Dragons).

c, A. C. Phillips (Archangels); W. G. Davies (Magies); R. Joseph, Rocklesze, Bristol (Antwerps); G. Holloway, jun. (3).

RABBITS (Lop-eared).—1 and 2, W. Llewellyn, Cardiff. c, Miss V. Morgan, Ruperra Castle, Newport.

The Judges were Mr. Hutton, of Pudsey, and Mr. R. H. Nicholas, of Newport.

CAMBRIDGE WORKING MEN'S CLUB EXHIBITION OF POULTRY, &c.

THIS was held in the large hall of the Institute, Fitzroy Street, Cambridge, on December 15th and 16th.

DORKINGS.—1, S. Wallis, Cambridge. 2, J. James, Fen Ditton. 3, Rev. R. F. Smythe, Caxton Vicarage, Cambs. hc, W. H. Denison, Woburn Sands. c, W. Nottage, Northampton.

COCHINS.—1, J. Everett, Hadleigh. 2, F. C. Bentick, Cambridge. 3, W. Mansfield, Cambridge. vhc and c, A. F. Faulkner, Thrapstone. hc, H. Cooper, Cambridge; W. Mansfield.

BRAHMAS.—1 and 3, M. Leno, Dunstable. 2, W. Mansfield, hc, F. Norris, Cambridge (2). W. Butler, Cambridge; W. Mansfield. c, A. F. Faulkner; F. Norris; J. B. Hibbert, Cambridge.

GAME.—1, T. Hawkins, Cambridge. 2, W. Asplin, Cambridge. 3, G. Mann, Cambridge. hc, T. Hawkins; W. Asplin; J. W. B. Rooke, Cambridge; R. J. Livings, Great Shelford (2). c, G. Mann.

HAMBURGERS.—1, M. Leno. 2, A. Silver, Melford. 3, W. R. Tickner, Ipswich. hc, M. Leno; Hon. Mrs. Neville, Cambridge; Rev. F. Tearn, Gazeley Vicarage, Newmarket; A. F. Faulkner; J. F. Miller, Cambridge; J. B. Bly, Wisbeach. c, A. F. Faulkner.

FRENCH.—1, F. C. Bentick. 2, W. Cotlack, jun., Littleport. 3, S. Woods, Cambridge.

BANTAMS.—1 and 3, M. Leno. 2, W. Adams, St. Clement's, Ipswich. hc, C. Hill, Cambridge; Rev. F. Tearn; Mrs. J. V. Longe, Tuddenham Vicarage, Ipswich; G. Mann.

ANY OTHER VARIETY.—1, G. W. Boothby, Louth (Golden Polish). 2, W. Nottage (Spanish). 3, W. D. Townley, Fainbourn (Leghorns). hc, W. Hudson, Cambridge (Spanish).

SELLING CLASS.—*Cock, Cockerel, or Drake*.—1, A. F. Faulkner (Cochin). 2, M. Leno (Brahma). 3, S. Wallis (Aylesbury Drake). vhc, M. Leno (Brahma); S. Lucas, Hitchin (Brahma). hc, F. Fitch, Cambridge (Rouen Drake); G. C. Levitt, Cambridge (Brahma); W. Mansfield (Light Brahma); W. H. Denison (Dorking). c, F. Barlow, Cambridge (Cochin).

SELLING CLASS.—*Hens, Pullets, or Ducks*.—1, W. Mansfield (Brahma). 2, M. Leno (Rouen Ducks). 3, S. Wallis (Dorkings). vhc, Mrs. King (Cochin); J. B. Hibbert (Brahma). hc, F. Barlow (Cree-Coeur and Buff Cochins); J. F. Fitch (Rouen Ducks); Hon. Mrs. Neville (Rouen Ducks); Rev. C. H. Cross, Cambridge (Dorking); W. Wallis (Game); W. Cotlack, jun. (Black Hamburg); A. F. Faulkner (Light and Dark Brahmas); G. Mann (Cochin); W. G. Waters Brigg (Game). c, E. Arnold, Whittleford (Brahma).

DUCKS.—1, 2, and hc, M. Leno. 3, S. Wallis.

PIGEONS.

CARRIERS.—*Cock or Hen*.—1 and 2, W. Minson. 3, W. Nottage. hc, B. Clifton, Cambridge; Master J. W. Massey, Spalding. c, T. Hawkins; G. Mann. *Young*.—*Cock or Hen*.—1 and 2, W. Minson. 3 and c, Master J. W. Massey, vhc, G. Mann. hc, B. Clifton (2).

POUTERS.—*Cock or Hen*.—1, W. Nottage. 2, H. B. Massey, c, J. G. Mann. hc, A. Storer, Peterborough (2); C. Brown, Ipswich; G. Mann. c, J. Atkins, Bedford; R. Roston, jun., Chatteris (2).

TUMBLERS.—1, W. D. Brown, Cambridge. 2 and hc, A. Dent, Cambridge. 3, W. Lee, Cambridge. c, H. Hawes, Cambridge.

DRAGONS.—1, W. Loveday, Cambridge. 2, Rev. W. V. Longe. 3, J. Atkins, c, W. Larkins, Biggleswade.

BARBS.—1, H. B. Massey, Spalding. 2, Master J. W. Massey. 3, W. Larkins, hc, C. Reed, Cambridge. c, C. Norman, Westerfield; G. H. Arrowsmith, Cambridge; W. Loveday.

TURBITS.—1, J. E. Smythe. 2 and 3, G. Mann.

ANTWERPS.—1, T. Hawkins. 2 and 3, A. R. Burrell, Cambridge.

ANY OTHER VARIETY.—1, W. Nottage. 2, G. Mann (Red Jacobins). 3, W. Brown (Nuns). hc, Rev. W. V. Longe (Blue English Owls). c, C. Norman (Black Trumpeters).

SELLING CLASS.—*Cock or Hen*.—1, Master J. W. Massey (Barb). 2 and 3, G. Mann (Pouter and Fantail). hc, H. Hawes (Fantail); G. Mann (Blue Turbit and Jacobin). c, G. H. Arrowsmith (Blue Turbit); E. Alderson, Ipswich (White Dragon); C. Heigham, Ipswich (Blue Dragon); W. Loveday (Yellow Barbs).

RABBITS.

LOP-EARED.—*Back or Doe*.—1, Mrs. H. Pickworth, Spalding. 2, G. F. Twite, Cambridge. 3 and vhc, W. S. Ward, Cambridge.

ANY OTHER VARIETY.—*Back or Doe*.—1, J. N. Parsley, Cambridge (Silver-Grey). 2, G. C. Livett (Himalayan). 3, E. Everett, Cottenham (Belgian Hare), hc, T. Turner, Cambridge (Silver-Grey); G. C. Livett (Himalayan); E. Robinson, Kettering.

CAGE BIRDS.

CANARIES.—*Clear Yellow or Buff*.—1 and 2, R. Nixon, Cambridge. hc, F. R. Hall, Cambridge; Knight & Spencer, Hitchin. c, A. Morgan, Cambridge.

CANARIES.—*Any other variety*.—1, F. R. Hall. 2, R. Nixon. c, F. R. Hall; Knight & Spencer.

BRITISH SONG BIRDS.—*Any variety*.—1, M. Harle, Cambridge (Blackbird). 2, Knight & Spencer (Goldfinch). c, F. R. Hall (Goldfinch); Mrs. J. Mouel, Cambridge (Bullfinch).

OPEN PRIZES.

Cup for the greatest number of points in poultry classes.—M. Leno.

Cup for the best pen of poultry.—M. Leno.

Cup for the best pair of Pigeons.—W. Minson.

Cup for the best Rabbit, Mrs. H. Pickworth.

LOCAL PRIZES.

Cup for the greatest number of points in poultry classes.—W. Mansfield.

Cup for the greatest number of points in Pigeons and Rabbits.—G. Mann.

Cup for the best Rabbit.—G. F. Twite.

Cup for the best pen of Pigeons exhibited by a member.—G. Mann.

JUDGES.—*Poultry and Rabbits*: Mr. W. J. Nicholls and Mr. F. R. Hall. *Pigeons*: Mr. F. W. Maccalfe. *Singing Birds*: Mr. E. Tyler, jun.

WATFORD POULTRY SHOW.

THE annual poultry Show in connection with the West Herts Agricultural Society was held at Watford on Monday and Tuesday December 14th and 15th. The building, which has only been erected within the last few years, is admirably adapted for the purpose. No less than six five-guinea cups were offered by the local gentry or the Society for the best birds in the various classes; as, however, the area of the Society is confined to the

county of Herts and a limited radius round Watford, the competition is not of course so severe as in most of the open shows. The entries on this occasion were said to be in excess of the previous years, particularly in the Selling classes. They would probably be increased if the rules did not require a cock and two hens to be entered in one pen; it surely would be better to have a pair of hens in one class, and the cock in another.

The *Dorkings* were not very numerous, the cup going to some old birds belonging to the Rev. E. Bartrum, quite of the old style in point of size, but not quite of the colour now in fashion. His second-prize pen contained a pair of excellent pullets, dark in colour, of large size, and good in every respect; the cockerel, which was said to have won a cup a few days previously at Dorking, was good in comb and tail, but not so broad as the old bird. The *Cochins* were not as numerous as the *Brahmas*; here, as elsewhere, the *Light* are beginning to encroach on the *Dark* variety. There was rather a large class of *Creve-Coeurs* and *Houdans*, and the *Turkeys* formed one of the best classes in the Show. The attendance on the second day was very good.

DORKINGS.—Coloured.—Cup, 1, and 2, Rev. E. Bartrum, Berkhamstead. *White or Silver*.—1, C. Snelling, Holywell, Watford. 2, D. Carnegie, Eastbury, Watford.

COCHINS.—Partridge.—1, C. A. Barnes, Rickmansworth. 2, Lord Chesham, Latimer, Chesham. *Any other variety*.—1, C. A. Barnes. 2, R. Bedford, Great Berkhamstead.

BRAHMA POUTRAS.—*Dark*.—1 and Cup, W. A. Peel, Watford. 2, W. J. Jervis, Woodridings, Finsbury. *Light*.—1, Lord Chesham. 2, G. Bentley, Rickmansworth.

GAME.—1 and 2, G. Bentley.

HAMBURGERS.—*Gold*.—1, R. Blackwell, Chipperfield. 2, Miss Gee, Abbot's Langley. *Silver*.—1, P. Clatterbuck, Rickmansworth. 2, W. J. Loyd, Langleybury, Watford.

BANTAMS.—*Game*.—1, G. Bentley. 2, Lord Chesham. *Any other variety*.—1, W. J. Loyd. 2, Lord Chesham.

CREVE-COEURS AND HOUDANS.—1, W. A. Peel. 2, A. Godson, Barnet. **ANY OTHER BREED.**—1, A. Ward, Wimpole Street, London (Leghorns). 2, G. Bentley (Spanish).

ANY BREED.—*Hens*.—1, R. Horsfall, Watford. 3, R. Bedford. *hc*, Rev. E. Bartrum. *Cock*.—1, Rev. E. Bartrum. 2, Lord Chesham.

DUCKS.—*Aylesbury*.—1 and Cup, C. A. Barnes. 2, Lord Chesham. *Rouen*.—1, C. A. Barnes. 2, P. Clatterbuck. *hc*, Rev. E. Bartrum. *East Indian*.—2, G. Bentley. *Any other distinct breed*.—2, P. Clatterbuck.

GESE.—1 and 2, J. Thurlham, Hemel Hempstead.

TURKEYS.—Cup, 1, and 2, A. H. Longman, Shendish, Hemel Hempstead.

Mr. J. Dixon acted as Judge.

GUILDFORD POULTRY SHOW.

THE Surrey Agricultural Show was held at Guildford on the 15th inst. The poultry were shown in a spacious hall well lighted from above, and were arranged in double tiers of zinc pens all round it. Considering the birds were all from Surrey or parts of the neighbouring counties, the Show was a most excellent one. The *Dorking* classes, as might be expected, were of great merit, and, if we mistake not, some Crystal Palace and Birmingham winners had to be content with simple high commendations. All four varieties of *Dorkings* had classes, and each was well represented. The second-prize pairs of *Whites* attracted much attention from their exquisite condition and colour. The first-prize pair of *Cuckoos* were good in colour but small, and the absence of sickle feathers in the cock should, in our opinion, have placed them below two of Mr. Measenger's pens. *Spanish* were not good beyond the first-prize pair. In *Cochins* the first-prize *Buffs* were fair. The first-prize *Whites* good in shape, and beautifully shown. A nice pair of Grouse-feathered birds were unfortunately entered as *Dark Brahmas*. In both classes for *Brahmas* the prize birds were good, but few other birds in them were worth notice. The *Game* classes were very good, that for *Reds* well filled. First were beautiful *Brown Reds*; second *Black Reds*. In the other class a pretty pair of the now rare *Blue Game* won. There were some lovely *Golden-pencilled Hamburgs*, and as good *Game Bantams* as are seen at the best shows, the two winning cocks being peculiarly stylish. *Ducks* were fair. The second-prize pair of *Aylesburys* were nice in colour and size, and some quaint little *Shovellers* appeared in the Variety class. *Geese* and *Turkeys* were not so good as we have before seen at Guildford, and hardly worthy of so agricultural a county.

The general management of the Show seemed fair—that is, as good as is generally the case where a poultry show is but the adjunct of a cattle show. We may suggest to the authorities that canvas backs are necessary for zinc pens where these are placed some distance from the wall. We saw a handsome sickle tail destroyed by a shy cock being driven to the back of his pen by admiring gazers. If two or three open Selling classes were another year added to the Show, it might, we think, be made a great success, and a useful impetus given to poultry-breeding in the neighbourhood.

DORKINGS.—*Grey*.—1, O. E. Cresswell, Early Wood, Bagshot. 2, H. Young, Dorking. 3, J. Ivery & Son, Dorking. *hc*, H. Mills, Dorking. *Chickens*.—1, Mrs. F. Stevens. 2, A. Taylor, Dorking. 3, O. E. Cresswell. *hc*, C. Fennell, Oatlands Park. H. Mills, Dorking. *c*, J. Ivery & Son; J. H. Putney, Dorking.

DORKINGS.—*Silver-Grey*.—1 and *hc*, O. E. Cresswell. 2 and *c*, T. Moore, Petersfield. *White*.—1 and *hc*, O. E. Cresswell. 2 and *c*, G. Chubb, Denbies, Dorking. *Blue*.—1, J. Putney. 2, W. Messenger, Womersley. *hc*, W. Virgo and Son. *c*, W. Virgo & Son; W. Messenger; J. Isard, Wokingham Station.

SPANISH.—1, H. Brown, Putney Heath. 2, W. D. Frosser, Wandsworth.

COCHINS.—*Buff and Cinnamon*.—1, J. Pares, Postford. 2, Mrs. R. Bonner. *Any other colour*.—1 and 2, O. E. Cresswell.

BRAHMAS.—*Dark*.—1 and 2, O. E. Cresswell. *Light*.—1 and 2, J. Bradshaw, Cranleigh. *hc*, Rev. W. Pearce, West Horsley.

DUCKS.—*Aylesbury*.—1 and 2, Rev. W. Pearce, West Horsley. 2, Rev. J. Merriman, Cranleigh. *hc*, Rev. J. Merriman; J. E. Lane. *c*, E. Haines, Oatlands Park. *Any other variety*.—1, W. Balchin, Farnham.

HAMBURGERS.—1 and 2, O. E. Cresswell. *hc*, W. Balchin; W. O. Hodges. *c*, G. Lee, Ashford.

BANTAMS.—*Game*.—1, T. Randall, jun. 2, T. W. Anns, Clapham. *hc*, J. E. Lane. *c*, W. M. Molyneux; T. Randall, jun. (2). *Any other variety*.—1, O. E. Cresswell. 2, J. Pares, Postford. *c*, W. Balchin.

DUCKS.—*Aylesbury*.—1 and 2, Rev. W. Pearce, West Horsley. *c*, E. Hilder, Woking. *Rouen*.—1, E. Hilder. 2, J. Pares. *Any other variety*.—1, R. Wilkinson, Guildford. 2, J. H. Webber, Womersley. *hc*, G. Lee, Ashford.

GESE.—1, W. Messenger. 2, E. Hilder. *hc*, T. Baker, Compton. *Goslings*.—1, W. Messenger. 2, T. Baker. *hc*, W. S. Smith. *c*, W. Virgo & Son.

TURKEYS.—1, Rev. N. J. Bidley, Newbury. 2, G. H. Langford. *hc*, Countess Lovelace, East Horsley. *c*, W. Messenger. *Fowls*.—1, G. H. Langford. 2, J. H. Webber, Womersley. *hc*, G. H. Finkler. *c*, Countess Lovelace.

ANY OTHER VARIETY.—1, Rev. G. Chilton (Creve-Coeur). 2, O. E. Cresswell (Japanese Silkies). *c*, W. O. Hodges (Golden Polish); R. Wilkinson (Japanese Silkies).

JUDGE.—Mr. P. H. Jones, Fulham.

PLYMOUTH POULTRY SHOW.

THIS Show was held in the Market, Plymouth, on the 15th, 16th, and 17th of December, when the following awards were made:—

GAME.—*Any variety*.—Cup and 1, H. Brown, St. Austell. 2, N. Barter, Plymouth. *Black or Brown Red*.—1 and 2, H. Brown. *Any other variety*.—1, H. Browne. 2, G. Julian, Wadebridge. *Indian*.—Cup and 3, Mrs. J. Partridge, Bow, Devon. 2, J. Palmer, Launceston.

DORKINGS.—*Coloured*.—1 and 2, R. W. Beachey, Kingskerswell. *Silver-Grey or White*.—1, H. Matthews. 2, J. H. Nicholls, Lostwithiel.

COCHINS.—*Buff and Cinnamon*.—1, S. R. Harris, Casgarne, St. Day. 2, H. Tuckwell, St. Austell. 3, G. Lias, Par Station, Cornwall. 2, Hon. Mrs. Sugden, Wilts, Somerset. *White*.—1 and Cup, T. H. Waterman, Devonport. 2, R. S. S. Woodgate, Pembury, Tunbridge Wells.

BRAHMAS.—*Light*.—1 and Cup, J. H. Nicholls. 2, J. Bassett, Lostwithiel. *Dark*.—1, T. H. Waterman. 2, T. Start, Calstock Town.

SPANISH.—1, J. Bassett. 2, Ellis & Parsley, Bristol.

MINORCA.—*Red-faced*.—1, H. J. Lonnnon, Stoke Devonport. 2, J. Croote, jnr., Wellington.

HOUDANS.—1, W. H. Copplestone, Lostwithiel. 2, H. Feast, Swanses.

CREVE-COEUR.—1, H. Browne. 2, W. H. Copplestone.

HAMBURGERS.—*Gold-pencilled*.—1, S. Elliott, jun., Liskeard. 2, H. Feast.

Silver-pencilled.—Cup, 1, and 2, N. Barter.

HAMBURGERS.—*Gold-spangled*.—1, N. Barter. 2, Mrs. J. Pattison, Dorchester.

Silver-spangled.—1, S. Elliott, jun. 2, N. Barter.

BANTAMS.—*Game*.—1, Allen & Osborn, Plymouth. 2, Master R. Clogg, Dublin. *Any other variety*.—1, C. Reed, Cambridge. 2, Rev. G. F. Hodson, Bridgewater.

ANY OTHER VARIETY.—1, J. Isard, Wokingham. 2, G. Lias.

SELLING CLASS.—*Cock*.—1, H. Brown. 2, J. Bassett. 3, H. J. Lonnnon.

DUCKS.—*Aylesbury*.—1 and 2, S. R. Harris. *Rouen*.—1, W. H. Copplestone.

2, H. Browne.

GESE.—1, S. Lane, Stratton. 2, Mrs. J. Partridge. 3, F. C. Ford, Plympton.

TURKEYS.—1, Rev. N. J. Ridley, Newbury. 2, F. C. Ford, Plympton.

PIGEONS.

CARRIERS.—1, P. Goss, Plymouth. 2, F. Hayman, Exeter.

CARRIERS.—1, N. Barter. 2, F. Hayman.

POUTERS.—1, J. Broad, Plymouth. 2, H. Yardley, Birmingham.

BARBS.—1, J. D. Mole, Exeter. 2, H. Yardley.

TUMBLERS.—1, J. Broad. 2, R. Wines, St. James, Devon.

FANTAILS.—1, J. F. Loversidge, Newark. 2, A. A. Vander Meersch, Tooting, London.

OWLS.—1, F. Braund, Bideford. 2, J. L. Smith, Barnstable.

TERTSITS.—1 and 2, J. L. Smith.

ANTWERPS.—1, G. Colson, Exeter. 2, W. Moon, Plymouth.

TRUMPETERS.—1 and 2, A. A. Vander Meersch.

DRAGONS.—1, Rev. G. F. Hodson. 2, W. Moon.

ANY OTHER VARIETY.—1, G. H. Gregory, Taunton. 2, A. A. Vander Meersch.

JUDGE.—J. Dixon, Esq., Bradford, Yorkshire.

LONDONDERRY POULTRY SHOW.

THIS was held on the 15th and 16th inst. Occurring just after the Show at Belfast, the Londonderry Society were fortunate in securing entries from our English exhibitors who had birds at the first-named Show, and the consequence was that the entries were better and the quality superior to some previous shows.

Dark Brahmas headed the list. First and second were grand hens with good cocks. Light were first good, and second moderate; and in chickens *Light* won both prizes. *Spanish* were good, as also the *Cochins*, where *White* were first in old, and *Partridge* first in chickens. *French* were good classes. Of *Hamburgs* there were only four pens. *Bantams*, *Game*, were fair birds, the first-prize *Piles* containing a grand hen; and *Blacks* won both prizes in the Variety class of *Bantams*. *Geese* were excellent, and the *Ducks*, especially the *Rouen*, above an average; first very large, and grandly marked. In the Variety were *Ruddy Shiels*, *Common Shiels*, and *Black East Indian*.

In *Pigeons* the *Carriers* and *Barbs* were first-rate, and *Fantails* good. The first in the Variety class, an English *Silver Owl*, was a good stout bird.

We can congratulate our Londonderry friends upon their success, and should be glad to see an attempt calculated to bring yet better and more numerous entries.

BRAHMAS.—*Dark*.—1 and 2, W. H. Crabtree, Levenshulme, Manchester. *hc*, J. Stuart, Helensburgh. *hc*, T. M. Hillard, Dublin. *c*, C. A. Smyth, Derry.

Light.—1, W. H. Crabtree. 2, J. Forrest, Milltown. *hc*, G. A. Stephens, Dublin.

BRAHMAS.—*Dark or Light*.—(*Chickens*).—1, E. J. Poer, Limerick. 2, D. Sullivan. *hc*, E. T. Herdman, Strabane (2); H. J. McBride, Gilford; R. F. Williams, Clontarf; R. A. MacDonald, Derry; C. A. Smyth; J. Forrest; Miss De C. Drevier, Dublin.

DORKINGS.—1, W. Whitworth, jun., Manchester. 2, J. Bond. *hc*, R. P.

Williams. *Chickens*.—1, A. W. Smyth, Castrase. 2, W. G. Molligan, Belfast. *he*, S. Glenn, Derry.

SPANISH.—1, J. A. & M. F. Smyth, Derry. 2, R. P. Williams. *Chickens*.—1, J. A. & M. F. Smyth. 2, W. G. Molligan. *he*, R. A. MacDonald. *Cochins*.—1, W. Whitworth, jun. 2, T. A. Bond. *he*, W. G. Molligan; W. H. Crabtree; F. Robertson, Belfast. *Chickens*.—1 and 2, M. Mahony, Dublin. *he*, L. Stoney, Dublin; F. Robertson. *c*, R. A. MacDonald; D. Sullivan. *FANCIERS*.—1, W. Whitworth, jun. 2, W. H. Crabtree. *he*, G. W. Hibbert, Manchester; Miss L. D. Smyth, Derry. *he*, E. T. Herdman; S. M. Moore, Derry; G. A. Stephens. *Chickens*.—1, R. A. MacDonald. 2, E. T. Herdman. *he*, Miss L. D. Smyth; G. W. Hibbert; S. M. Moore. *GAME*.—1 and 2, E. J. Peor. *he*, J. M. Millan, Coleraine; J. Logan, Derry. *HAMBURGS*.—Pencilled.—1 and 2, R. A. MacDonald. *Spangled*.—1, L. Stoney. *BANTAMS*.—*Game*.—1, J. Corcoran, jun. 2, *he*, and *he*, J. Corcoran, jun. *Any other variety*.—1, T. M. Hillard. 2, R. H. Ashton, Manchester. *he*, G. A. Stephens. *he*, A. Corcoran.

POLISH.—1, R. P. Williams. *ANY OTHER VARIETY*.—1, Miss L. D. Smyth (Black Hamburgs). 2, H. J. McBride (Malays). *he*, J. M. Millan (Malays).

SELLING CLASS—Hens or Ducks.—1, R. P. Williams (Dorkings). 2, E. T. Herdman. *he*, E. T. Herdman; J. Bond (Rouen). *he*, J. Bond (Dark Brahmans); R. A. MacDonald (Black Cochins); W. G. Molligan; Miss De C. Drevar (Silver Dorkings). *c*, E. T. Herdman; M. Mahony (Cochins); W. G. Molligan.

SELLING CLASS—Cock or Drake.—1, R. A. MacDonald (White Cochins). 2, M. Mahony (Cochins). *he*, E. T. Herdman; R. A. MacDonald (Sultan). *he*, J. Bond (Rouen); M. Mahony (Cochins); W. Simpson, Derry (Aylesbury); R. A. MacDonald (Spanish). *c*, J. Bond (Rouen); R. A. MacDonald (Light Brahma).

TUACERS.—1, H. Lytle. 2, W. Simpson. *he*, W. Simpson; C. A. Smyth. *DUCKS*.—*Rouen*.—1, F. Robertson. 2, W. Simpson. *he*, J. Bond; R. P. Williams; T. H. Graham, Derry; D. M. Smyth, Derry; W. Whitworth, jun. *Aylesbury*.—1, M. F. Smyth. 2, W. Simpson. *he*, R. P. Williams; S. M. Moore; M. F. Smyth. *Any other variety*.—1 and *he*, R. P. Williams. 2, G. S. Sainbury, Derry; *c*, J. Bond (Crested); R. H. McCorkell, Derry.

GEESSE.—1, T. H. Graham. 2, R. P. Williams. *he*, W. Simpson; S. M. Moore (2); C. A. Smyth. *c*, G. Mackey, Derry.

PIGEONS.

CARRIERS—Cock or Hen.—1 and 2, W. A. P. Montgomery, Belfast. *POUTERS—Cock or Hen*.—1 and 2, F. W. Zurborst. *he*, T. H. Graham.

BARBS—Cock or Hen.—1 and 2, W. A. P. Montgomery. *FANTAILS—Cock or Hen*.—1, A. Corcoran. 2, E. A. Seale, Dublin. *he*, A. Corcoran; E. A. Seale, Dublin.

JACOBIANS—Cock or Hen.—1, F. W. Zurborst. 2 and *c*, W. Shean, Comber. *he*, J. M. Aplin, Belfast; E. A. Seale (2).

TRUMPETERS—Cock or Hen.—1 and 2, J. Frame, Comber. *he*, W. A. P. Montgomery. *he*, F. W. Zurborst.

TURBITS—Cock or Hen.—1, E. A. Seale. 2, W. G. Henry, Dublin. *DRAGOONS—Cock or Hen*.—1, W. G. Henry. 2, T. M. Hillard.

ANY OTHER VARIETY—Cock or Hen.—1, W. G. Henry (English Owl). 2, F. W. Zurborst (Silver). *he*, W. A. P. Montgomery (Owl); E. A. Seale. *c*, A. Corcoran (Nun).

SELLING CLASS—Pairs.—1 and 2, E. A. Seale (Jacobins). *he*, A. Corcoran (Fantails and Trumpeters); F. W. Zurborst (Jacobins).

CAGE BIRDS.

CANARY—Buff or Pale Yellow—Cock or Hen.—1, A. A. Hamilton. 2, J. McIntyre, Derry. *he*, J. Park, Derry; J. & W. Stitt, Belfast; J. C. & A. Corcoran, Derry.

CANARY—Dark Yellow or Jonque—Cock or Hen.—1, C. A. Smyth. 2, A. A. Hamilton; J. McIntyre; J. C. & A. Corcoran. *c*, A. A. Hamilton; J. & W. Stitt (2).

CANARY—Any other colour or kind—Cock or Hen.—1 and 2, M. F. Smyth. *he*, A. A. Hamilton; J. & W. Stitt. *c*, A. A. Hamilton; W. Dale, Derry; J. C. & A. Corcoran.

CANARY—Any colour—Young Cock or Hen.—1, J. McIntyre. 2, J. & W. Stitt. *he*, J. C. & A. Corcoran. *he*, J. C. & A. Corcoran; F. Smyth. *c*, A. A. Hamilton; W. K. Magill, Waterside.

MULES—Cock or Hen.—1, W. K. Magill. 2, A. A. Hamilton, Derry. *he*, A. Corcoran, Belfast. *c*, J. Armstrong, Derry.

BATISB BIRD.—1 and 2, M. F. Smyth, Derry. *c*, J. Corcoran, jun., Derry; H. S. Hamilton, Derry.

PARROT, PARAKEET, COCKATOO, OR LARGE FOREIGN BIRD.—1, Miss Corcoran, Derry. 2 and *he*, J. Corcoran, jun. *c*, J. Corcoran, jun.; J. W. Corbett, Derry.

SMALL FOREIGN BIRDS—Pair.—1, 2, and *he*, M. F. Smyth.

JUDGE.—Mr. C. F. Staunton, Sandy Mount, Dublin.

KIRKCUDBRIGHTSHIRE POULTRY SHOW.

The annual Show of the Kirkcudbrightshire Society was held at Castle-Douglas on the 18th inst. Like all its predecessors, its great fault was that the exhibitors were obliged to find their own coops—an antiquated system which does much to retard the usefulness of the Show, and one we would gladly see abolished, for then the entries, especially from a distance, would no doubt be much larger. The Town Hall is an excellent place for such an exhibition, being well lighted and lofty.

Game headed the list, Black Reds winning first in both classes, and Brown Reds second in old birds. Duckwings were very good in colour, but only small in bone. Dorkings were next, the Dark Greys only poor and few, but the Silver-Greys good in both classes. Spanish were poor; but the Cochins in both young and old mustered well, the winners being unusually good in colour. Hamburgs were a great improvement upon all previous shows, some birds being unusually good. Brahmans were a good lot, the winners in old being same as at Dumfries; but the chickens were reversed, the first-prize cockerel having made great progress. The Variety class contained good birds of several kinds, the first Hondans, very good; Crève-Cœurs being second. Bantams were poor, except the winners in Game, and these were good, especially the Duckwings. Ducks, both Aylesbury and Rouen, especially the former, were first-class in all respects, and Geese and Turkeys very large.

The Pigeons contained nothing of note except the first-prize Pouters, Black Balbs, and Fantails.

The show of Birds was mostly of the Scotch Fancy, but there was a good show of Goldfinches.

Game.—Black Reds, Blacks, and other Reds and Blues.—1, R. Bryden, Lochmaben. 2, J. A. Mather, Nuthside, Closeburn. *he*, A. M'Adam, Castle-Douglas. *he*, Miss E. A. Knott, Dumfries. *Chickens*.—1, R. Bryden. 2, J. Craik, Dumfries. *he*, W. Waller, Castle-Douglas. *c*, W. Waller; A. M'Adam (2).

GAME—Duckwings, Whites, and other Greys.—1, J. Craik. 2 and *he*, A. M'Adam. *Chickens*.—1, A. M'Adam. 2, J. M'Ghie, Castle-Douglas. *he*, J. A. Mather; J. Craik.

DORKING—Coloured.—1, N. Wilson. *DORKINGS—Silver-Greys*.—1, J. Cunningham. 2, Capt. G. F. Lyons, Kirkmichael. *he*, Mrs. Congreve. *Chickens*.—1, 2, and *he*, J. Cunningham. *he*, Capt. Maxwell, Terregles; Capt. G. F. Lyons.

SPANISH—Black.—1, J. M'Harrie, Culhorn Mains, Stranraer. 2, J. Ross, Lochans, Stranraer. *c*, J. Spence, Low Ardwell, Stranraer. *he*, A. Wither, Stranraer. *Chickens*.—1, W. Martin, Stranraer. 2 and *he*, J. M'Harrie. *he*, J. Spence; A. Wither. *c*, P. Matthews, Garthland Mains, Lochans; P. McIntyre, Castle-Douglas.

COCHIN-CHINAS.—1, A. Hutchison, Stranraer. 2 and *he*, G. F. Lyons. *he*, Miss E. A. Knott; T. Kennedy, Dumfries. *c*, R. Maxwell, Dumfries. *Chickens*.—1, R. Maxwell. 2, J. M'Harrie. *he*, Capt. Maxwell; T. Kennedy; Capt. G. F. Lyons (2).

HAMBURGS—Golden-spangled.—1, A. Wither. *Silver-spangled*.—1, J. Ross. 2 and *he*, A. Wither. *he*, Capt. G. F. Lyons.

HAMBURGS—Golden-pencilled.—1, G. M'Dowall, Anechtalre. 2, J. Ross. *he*, Master J. Kerr; T. Kennedy; A. Hutchison. *c*, Capt. G. F. Lyons. *Silver-pencilled*.—1, W. M'Harrie. 2, M. Smith, Townhead.

BRAMA POUTAS.—1, R. Maxwell. *he*, Capt. G. F. Lyons. *c*, G. W. Congreve, Carlingwark. *Chickens*.—1, R. Maxwell. 2, Capt. G. F. Lyons. *he*, T. Kennedy; R. J. Congreve. *c*, Miss E. A. Knott.

ANY OTHER VARIETY.—1, A. Wither (Hondans). 2, Capt. Maxwell (Crève-Cœurs). *he*, J. Ross (Black Hamburg); J. C. Kennedy (White Dorkings); W. M'Harrie (Silver Poland); *he*, Miss E. A. Knott (Polands); A. Wylie, Johnstone (Polands); W. M'Harrie (Crève-Cœurs).

SELLING CLASS.—1, T. Kennedy (Black Cochins). 2, Capt. G. F. Lyons (Cochins). *he*, — Irving, Kirkhouse, Carlisle (Game); P. McIntyre (Spanish). *he*, Miss E. A. Knott (Polands); J. Ross (Dark Brahmans); N. Wilson (Brahmas); W. Hogg, Castle-Douglas (Dorkings); W. Martin; W. M'Harrie (Polands). *c*, W. Martin.

DUCKS—Aylesbury.—1 and 2, Capt. G. F. Lyons. *he*, Mrs. W. Brown, Castle Douglas. *c*, Mrs. Black; Mrs. W. Brown. *Rouen*.—1, G. M'Dowall. 2, W. Martin. *he*, Capt. G. F. Lyons. *he*, B. Carlisle, Dumfries; Capt. Maxwell; G. M'Dowall. *Any other variety*.—1, W. Martin (Carolina). 2, J. C. Kennedy (Wild). *c*, W. Buchanan, Bonknowe (2); Miss E. A. Knott; G. W. Congreve; Capt. G. F. Lyons.

GEESSE.—1 and 2, J. Bell, Dunlop.

TURBETS.—1, M. H. Maxwell, Dumfries. 2, J. Bell. *he*, Mrs. Congreve. *c*, E. Forsyth, Hensol.

BANTAMS—Golden and Silver-laced.—1, R. Bryden. *Black*.—1, D. M'Glen, Kilmarnock. 2, R. Bryden. *c*, Miss E. A. Knott. *White*.—1, J. Geddes, Dalbeattie. 2, Capt. Maxwell.

GAME BANTAMS—Black and other Reds.—1, J. Mair, Lochmaben. 2, J. Morrison, Drumstinchall. *he*, Miss N. Mackie, Errespie; C. Mitchell, Castle-Douglas; W. Waller, Castle-Douglas. *c*, J. M'Keand, Kilmichael. *Duckwings and other Greys*.—1, R. J. Hartley, Altrincham, Cheshire. 2, D. M'Glen. *c*, N. Wilson; R. Irving.

PIGEONS.

TUMBLERS.—1, R. Hutchison. 2, J. Turner, jun., Dumfries. *c*, E. M'Kie, Maxwelltown; J. Kilgour, Stranraer.

CARRIERS.—1, A. Hutchison. 2, Miss E. A. Knott.

POUTERS.—1 and 2, A. Hutchison.

JACOBIANS.—1, J. Turner, jun. 2, Miss E. A. Knott. *he*, E. M'Kie.

FANTAILS.—1 and *he*, T. Douglas, Thornhill. 2, Miss E. A. Knott.

ANY OTHER VARIETY.—1, A. Hutchison (Trumpeters). 2, Master W. Patullo, Parton Manse (Ice). *he*, Miss E. A. Knott (Archangels). *c*, E. M'Kie (Barbs). A. Hutchison, jun. (Blue Turbites).

CANARIES.

YELLOW—Cock.—1, J. Thorpe, Dumfries. 2, R. Bryden, Lochmaben; J. Thorpe.

BUFF—Cock.—1, W. Clark, Langholm. 2, T. Grierson, Castle-Douglas. 3, J. Thorpe. *Hen*.—1 and 2, J. Thorpe. 3, W. J. Torry, Castle-Douglas.

YELLOW PEBBLED—Cock.—1, J. Thorpe. 2, J. M'Quhae, Maxwelltown. 3, J. M'Crede, Stranraer. *Hen*.—1, W. Clark. 2, J. M'Crede. 3, T. Grierson.

BUFF PEBBLED—Cock.—1, H. Eiden. 2, J. Thorpe. 3, J. M'Crede. *Hen*.—1, E. Forsyth, Hensol. 2 and 3, T. Gilmore, Newton-Stewart.

GOLDEN PEBBLED—Cock.—1, J. Thorpe. 2, A. Martin, Castle-Douglas. 3, Master J. Little, Dumfries.

GOLDFINCHES.—1 and 2, A. Martin. 3, J. Ireland, Campbellton.

JUDGE.—Poultry and Pigeons: Mr. E. Hatton.

GREAT YARMOUTH POULTRY SHOW.

This Show was held on the 16th and 17th inst. in the Rifle Drill Hall, an excellent place in all respects, except that, the light being wholly from the roof, some of the pens on the bottom tier were rather deficient of light. A very excellent list of cups and money prizes brought together a good entry of excellent birds.

Brahmas headed the list, some grand old cocks being shown, as also in hens, Mr. Lingwood taking most of the prizes; some of the local birds coming very close upon the winners. *Dorkings* were also good, most of the prizes being won by Dark birds, though in hens we preferred a Silver-Grey by Mr. Wren to the winners. *Chickens* were poor. Light Brahmans were a nice lot in all classes. In *Cochins* the awards were well made; and in *Game* there was little to take exception to, except that Mr. Martin's grand Duckwing was passed unnoticed, and should have been second, if not higher. *Spanish* were well judged except the second-prize cock, and this ought not to have been noticed, its face being rough and puckered to a great extent. *Hamburgs* were a fair lot in all classes, but the Blacks were by far the best. A class for *Malays* brought a good entry, and we hope this will be copied by other societies; but we were not greatly impressed with the quality of the birds. *Game Bantams* were large classes, and here we are sorry to have to record about the worst piece of judgment we have ever seen. In Black Reds the first contained a very moderate pullet and a cockerel that would be dear at 1s. 6d., as it had not a single point; wings long and down, and tail gone star-gazing. Second were much better, being sound in colour but heavy in feather, and should have been highly commended. Pen 415 (Eaton) were second best, and 450 third best; but the best of all, 448, by G. Hall, a pen worth the whole class, and which ought to have taken the cup at a look, were placed third. In the case of the next class the awards

were even worse made if possible. Pen 463 (which we do not hesitate to say are faultless, and one of the best pen of Piles ever yet shown), were not even commended, while the cup was given to Piles without either style or condition to recommend them, and quite a washed-out colour. Pen 451 (Adams), Duck-wings, third, should have been second, and Mr. Entwistle's highly commended pen third. Surely the Judge must be devoid of practical experience to make such a mess; and there is little doubt but that a few more mistakes and the fancy will lose some of its best supporters. The Black Bantams were rightly placed. Ducks were very good classes; as also the Selling classes, of which there were several provided, and they were well filled. The pens were the property of the Society, and were of the most substantial kind, clean, and well lit up.

The Pigeons had the same amount in prizes offered as last year, and the entries were about the same, but a great improvement was very plain in the quality of the birds, and that mostly in the standard varieties. In Carrier cocks the first was a heavy bird, but a little bright in eye as compared with the second-prize Dun, and a trifle peg-wattled. The Dun, a strong young bird, was a little stumpy in beak; third a Black, a little flat-wattled, good eye, carriage, and colour. In hens first was a grand bird, fine in every point, and splendid in carriage and colour, and the cup for the best pen was awarded here; second, also a Black, was good, but lighter; and third a good sound Dun. Carriers of 1874 were a grand lot, and very regular: first a large strong Dun cock; second a Black hen, which must make her mark on the fancy; and third a strong young Blue. Twenty-three entries. *Pouter* cocks good. First large Blue, very good in all points, and in fine play, but rather thick in girth; second White, more slim-built, also large and good; and third a White. In hens first was a grand White in the best possible order; second a good Yellow, rather foul on thigh, but in good order; and third also White. Most of the birds in the above five classes were mentioned in the list. *Barbs* were moderate: first a good Black; second Red, by far the best, but not in order; and third Black. *Barbs* of 1874 were good, the winners Black. *Tumblers*, Short-faces, a grand lot, among which we found some most perfect birds; the winners were all Almonds. First most perfect Almonds; second best in head, but rather dark in tail; and third good, but scarcely as well broken in feather. The best headed bird in the lot was an Agate, perhaps one of the best ever seen. *Tumblers*, Long, first a most perfect pair of Red Mottles; second of that kind, but not so even; and third Badges. *Fantails* were unusually good in both sexes, the tail being almost a complete circle, and in most cases combined with fine action, notably in the case of first-prize hen. *Dragoons* were good classes. In cocks a most perfect Yellow was placed first, this bird answering all the demands of the old-established fancy; second a good strong Blue, and third Silver; many others being noticed. In hens the first was also a Yellow, and a most perfect match for the cock above referred to; second Blue, fine and good in all points; and third Blue. Most were noticed. *Antwerp* cocks were a very fair lot. The first, a Silver Dun, was Short-faced, good in head, but a little too long in feather; second Red Chequer, a perfect medium-faced bird; and third a Short-faced Silver Dun. In hens the first was a most excellent Short-faced Dun, almost as strong as a cock in foot; second a Red Chequer; and third Silver Dun. *Jacobins* poor, and third prize withheld. The Variety class was a real good one, first were placed White African Owls; second Pigmy Pouters; and third Silver Brunswick; while an extra third was awarded to Spangled Ice. There were some good birds in the Selling class, the first going to White Pouters; second Ice Pigeons; and third to Almonds.

DORRINGS.—Cock.—Cup, H. Lingwood, Needham Market. 2, W. Clark, Nottingham. 3, Mrs. B. E. Sapwell, Aylsham. Local, W. Durrant, Yarmouth. *Hen*.—Cup, Henry Lingwood. 2, Rev. E. Bartrum, Eerkhamstead. 3, L. Wren, Lowestoft. 3, F. Parlett, Chelmsford; Mrs. Berners, Toxted; A. Darby, Shrewsbury; Mrs. Sapwell; Mrs. Atherton, Leighton Buzzard; J. Gee. c, Mrs. Berners; R. Gurney, Norwich; Henry Lingwood.

DORRINGS—Chickens.—1, C. J. N. Row, Melford. 2, J. Frost. 3, L. Wren. 4, L. Allen, Southwark, London. *he*, W. Howchin, Wangford. c, W. Howchin; H. H. Rush, Heybridge.

BRAHMAS.—*Park—Cock*.—Cup and 2, Horace Lingwood, Creeting. 3, Lady Gwydyr Ipswich. Local Cup, G. S. Pearson, Wymondham. *he*, G. S. Pearson. N. Brunton. c, J. S. Clark; F. J. Cotterell, Birmingham. *Hen*.—Cup, Horace Lingwood. 2 and 3, Lady Gwydyr. Local, G. S. Pearson. *he*, Horace Lingwood. *he*, T. L. Nash, Ipswich. Rev. J. D. Peake, Chertsey. c, G. S. Pearson; Rev. J. D. Peake. *Pullet*.—Cup, Newham & Mauby, Wolverhampton. 2, J. Wats, Birmingham. 3, White & Shutt, Wellingham. Local, G. S. Pearson. *he*, Rev. J. D. Peake. *he*, E. Frithard, Wolverhampton; Horace Lingwood (3); Mrs. C. Tindall; Newham & Mauby. c, Dr. J. Holmes, Chesham.

BRAHMA—Light.—Cock.—Cup and 2, Horace Lingwood. 3, P. Haines, Fulgrave, Diss. *he*, P. Haines; J. Long; F. J. Cotterell. c, K. Bird. *Hen*.—Cup, F. J. Cotterell. 3, S. P. Broad, Rengate. *he*, P. Haines; Mrs. Peet, Sharnbrook. *he*, P. Haines. *Pullet*.—Cup, A. Darby, Bury St. Edmunds. 2, S. P. Broad. 3, Horace Lingwood. *he*, P. Haines; K. Bird. *he*, Mrs. Peet; J. Long; R. Bird; H. Stephens.

COCHINS—Crown or Buff—Cock.—Cup, Lady Gwydyr. 2, A. Darby. 3, c, Mrs. A. Tindall. Local, W. P. Matthews, Glaston. *he*, H. Piper, Oxford; R. A. Burnell. *Hen*.—Cup, A. Darby. 2, Lady Gwydyr. 3, Mrs. A. Tindall. Local, W. P. Matthews. *he*, Mrs. C. Berners; Mrs. A. Tindall; Henry Lingwood. c, T. Sherwood, Needham Market.

COCHINS—Partridge.—Cock.—Cup, Mrs. A. Tindall. 2, T. M. Derry, Gedney. 3, J. Gunn, Colville. *he*, W. Clark; Bentinck, Cambridge; G. Shrimpton, Leighton Buzzard. c, T. J. Saltmarsh, Chelmsford. *Hen*.—Cup, Mrs. A. Tindall. 2, T. M. Derry. 3, G. Shrimpton. Local, W. Durrant. *he*, G. Vincent, Norwich; W. Durrant (2).

COCHINS—Black.—Cup, W. Mansfield. 2, Lady Gwydyr. 3, T. Aspend. *he*, A. Darby.

COCHINS—White.—Cup, R. S. S. Woodgate, Tunbridge Wells. 2, Mrs. A. Tindall. 3, J. K. Fowler, Aylesbury. *he*, R. S. S. Woodgate; Mrs. A. Tindall; W. A. Burnell.

SPANISH—Cock.—Cup, J. Boulton. 2 and Local Cup, E. Holmes. 3, R. Newbitt, Epworth. *he*, J. Keable. *Hen*.—Cup and 2, J. Palmer, Acton, London. 3, R. Newbitt. *he*, M. Brown, Melton Mowbray. c, Major C. J. Ewen, Norwich. *GAME—Black-breasted.*—Cock.—Cup, J. Forsyth, Wolverhampton. 2, J. Mason, Worcester. 3, Capt. E. F. Terry, Reading. Local, W. Durrant. *he*, S. Forsyth, Stowmarket. c, Allen, Norwich. *Hen*.—Cup, S. Matthews. 2, J. Forsyth. 3, J. H. Bradwell, Southwell. *he*, G. H. Fitz-Herbert, Sevenoaks.

GAME—Brown-breasted.—Cock.—Cup, S. Matthews. 2, T. Burgess, Salop. 3, G. C. Barrett, Birkenhead. Local, W. Durrant. *he*, W. Durrant (2); G. Cottle; J. Carlisle, Earby. *Hen*.—Cup, Dr. A. Cameron, Rotherham. 2, H. E. Martin, Fakenham. 3, S. Matthews. Local, W. Durrant. *he*, H. Reynolds, Lowestoft; J. Cook; W. C. Phillips, Worcester. c, T. Burgess.

GAME—Any other variety.—Cock.—Cup, W. C. Phillips. 2, E. Bell, Barton-on-Sea. 3, G. H. Fitz-Herbert. c, B. Mollett, Hunstanton; W. Wright, Ormskirk. *Hen*.—Cup, E. Winwood, Worcester. 2, D. W. Thomas. 3, S. Matthews.

HAMBURGS.—*Silver-spangled.*—Cup, R. Stanworth, Worsbourn. 2, J. Long. 3 and Local, C. Quinton, Yarmouth. *he*, R. H. Platt, jun., Fakenham. c, J. Carr, Swansea. *Silver-pencilled.*—Cup, T. Webster, Colne. 2, H. Smith, Keighley. 3, J. Long. *he*, T. Haason, Keighley.

HAMBURGS.—*Gold-spangled.*—Cup, W. K. Tiekner, Ipswich. 3, J. Long. 3, S. W. Hallam. Local, E. Cox. *Gold-pencilled.*—Cup, W. K. Tiekner. 3, L. Wild, jun. 3, S. W. Hallam. Local, W. Brett. *he*, W. Driver; J. Long; S. T. Webster.

HAMBURGS.—*Black.*—Cup, J. Long. 2, H. Thomas. 3, Rev. W. Serjeantson, Acton Burnell Rectory. Local Cup and *he*, T. A. Wright. c, R. S. S. Woodgate. **AMERICAN FOWLS.**—1, A. Ward. 2, R. K. Fowler. 3, A. Kitchen, Westerham. *he*, R. K. Fowler; R. B. Day.

COCHINS.—Cup, J. Bailey, Newark. 2, W. Cotlack, jun., Littleport, Ely. 3, J. K. Fowler. *he*, R. A. Bousier, Fenshurst. c, G. D. Harrison.

MALAYS.—Cup, S. Elliott. 2, F. Sabine, Birmingham. 3, G. Burnell, Rugeley. *he*, J. S. Rooth; Capt. C. P. Terry.

ANY OTHER VARIETY.—Cup, W. Cotlack, jun. 2, J. Long. 3, Mrs. A. Tindall. *he*, H. Peat, Swansea. *he*, A. & W. H. Silvester, Sheffield; G. W. Boothby; Miss A. E. Eeles, Southwold; A. Darby; C. Broad; J. Dean, Keighley. c, R. A. Bousier.

GAME BANTAMS.—*Black or other Reds.*—Cock.—Cup, J. Terry. 2, W. B. Jefferies, Ipswich. 3, G. H. East, Local. c, S. Pearson. *he*, A. Slorans; W. Adams. Ipswich. *he*, F. W. H. Bradwell, Bradford; W. B. Jeffries; J. Eaton, Grantham; R. Newbitt; F. Shumach. *Any other variety.*—Cup, J. Eaton. 2, F. Shumach, Southwell. 3, W. Adams. *he*, G. Evans, Worcester; W. F. Entwistle.

BANTAMS.—*Black.*—Cup, Milner & Beaudan, Keighley. 2, J. Earnshaw, Rotherham. 3, Mrs. A. Tindall. Local, 1. Preston, jun., Yarmouth. *he*, C. B. Francis; A. Slorans; T. E. Thistle. c, K. H. Ashton, Mottram; G. Hall. *Any other variety except Game.*—Cup, E. Frithard. 2, R. S. S. Woodgate. 3, A. Ashley. Local, E. Cox. *Gold-spangled.* *he*, Mrs. Woodcock. *he*, Mrs. T. Longe; T. Fenn; Mrs. Tonkin. c, T. P. Carver.

DECKS.—*Iglesbury.*—1, J. K. Fowler. 2, Mrs. A. Tindall. 3, H. Hoff. *he*, W. B. Risling. *Rouen.*—1, J. K. Fowler. 2, J. S. Pearson. 3, F. Parlett, Chelmsford. *he*, J. Everett. c, Rev. W. F. Dixon; Lady G. Gordon. *Any other variety.*—1, A. & W. H. Silvester. 2, Mrs. Wilkison, Guildford. 3, G. S. Sainsbury, Devizes. *he*, J. W. Kelleway. c, T. L. Nash.

SELLING CLASS—Cock or Drake.—Cup, G. Keay, Birmingham. 2, Mrs. C. Berners. 3, W. White, Lowestoft. 4, T. L. Saltmarsh. *he*, H. E. Martin; E. G. Keay. *he*, Mrs. Peet; Rev. F. Tearle; T. Sherwood; W. J. Nutman; G. S. Pearson. 2, Sheen; Mrs. Loring; T. M. Derry (2); J. Franklyn; H. Dowsett; J. K. Fowler; G. Shrimpton; J. Webb (2); J. A. Clarke. c, Mrs. Croca.

SELLING CLASS—Hens or Ducks.—1, W. J. Nutman, Great Yarmouth. 2, T. L. Nash. 3, Miss E. A. Eeles. 4, C. G. Algar, Maldon. Local, G. S. Pearson. *he*, H. J. Gummel; Mrs. A. Tindall (2); G. S. Pearson; T. L. Nash; Rev. J. D. Peake; J. D. Bly; H. Dowsett; J. K. Fowler; W. Hargreaves; J. Hodge; G. Cottle. c, Rev. J. C. Peak; W. Howchin; E. Brown, Great Yarmouth; G. S. Pearson; T. M. Derry; J. A. Wardell.

SELLING CLASS—Bantams.—1, T. E. Thistle, Lowestoft. 2, Rev. F. Tearle. 3, E. & A. Farrington, Worcester. Local, W. Durrant. *he*, W. Robins; W. Adams; W. F. Entwistle (2); K. V. Ardagh; H. Feast; R. Newbitt.

PIGEONS.

CARRIERS.—*Cock.*—1, 2, and *he*, W. G. Hammock, Ilford. 3, F. W. Metcalfe, Cambridge. Local, G. S. Clements. *he*, W. G. Hammock. *he*, Miss F. Seaton; G. Kempton; W. H. A. Miller. c, G. S. Clements. *Hen*.—1, W. G. Hammock. 3, G. Kempton, Islington, London. Local and *he*, G. S. Clements. *he*, C. Clarke; W. G. Hammock (2). c, W. H. A. Miller; G. S. Clements. *Young Cock or Hen*.—1 and 2, W. G. Hammock. 3, Miss F. Seaton, Leeds. Local, G. S. Clements, Yarmouth. *he*, J. Ford; G. Kempton; G. S. Clements. *he*, G. H. Clarke; W. G. Hammock; F. W. Metcalfe; G. Kempton; G. S. Clements; C. J. Cave. c, J. Ford; H. Thurlow.

POUTERS.—*Cock*.—2, H. Thurlow, Lower Tooting, London. 3, W. Nottage. *he*, Mrs. Ladd, Colce. *he*, A. Slorans; J. E. Palmer; W. Watkin; H. Thurlow (2). *Hen*.—1, L. Watkin, Northampton. 2, H. Pratt, Birmingham. 3, H. Thurlow. Local, G. S. Clements. *he*, J. E. Palmer; W. Nottage. c, A. Slorans; C. F. Byford; H. Thurlow; G. S. Clements.

BARS.—*Cock or Hen*.—1, C. Norman, Westerfield. 2, A. P. Byford, Ipswich. 3, and c, Miss F. Seaton. Local, G. S. Clements. *he*, H. Yardley. *he*, H. Thurlow. *Young Cock or Hen*.—1, C. G. Cave, Spalding. 2, H. Thurlow. 3, H. Yardley, Birmingham. Local, G. S. Clements. *he*, H. Thurlow; C. G. Cave. c, A. P. Byford.

TEMPLES.—*Short-faced.*—*Cock or Hen*.—1, W. G. Hammock. 3, J. Ford, Monkwell Street, London. Local, W. Simmons. *he*, J. E. Palmer; W. D. Brown; W. G. Hammock. *he*, A. & W. H. Silvester; J. Ford; H. Yardley; S. Lawson. c, W. D. Brown. *Long-faced*.—1 and 2, A. & W. H. Silvester. 3, J. J. G. S. Clements. Local, G. S. Clements. *he*, J. Farnam; G. & W. Banna. c, J. Ford; G. S. Clements.

FANTAILS.—*Cock*.—1, Rev. W. Serjeantson. 2 and 3, J. F. Loversidge, Newark. *he*, J. Walker; F. Aldiss; H. M. Yett. c, H. Thurlow. *Hen*.—1, J. F. Loversidge. 2, Rev. W. Serjeantson. 3, J. Walker, Newark. *he*, J. Kandale. *he*, J. Walker; J. F. Loversidge. c, H. Thurlow.

DRAGONS.—*Cock*.—1 and 3, F. Graham. 2, W. Smith. *he*, W. G. Hammock. *he*, W. Atkins; A. Wren. *he*, W. G. Hammock; H. Thurlow; G. S. Clements. c, W. H. Hammock. *Hen*.—1, and 2, W. Wren, Lowestoft. 2, F. Graham. 3, W. Smith. *he*, W. G. Hammock. *he*, F. Graham; W. Smith; H. Yardley. c, A. Bentley; H. Thurlow. Local, G. S. Clements, Great Yarmouth.

ANTWERPS.—*Cock*.—3, H. Gough, Wolverhampton. *he*, Miss F. Seaton; A. Bentley; J. G. Edwards; S. Lawson; H. Theobald. *he*, H. Valtera and R. Ferrages; H. Cox; J. Robertson; H. Thurlow. c, J. Farnam; J. G. Edwards. *Hen*.—1, C. E. Copeman. 2, F. C. Russell, Blackheath. 3, H. Gough. *he*, A. Bentley; S. Lawson; H. Thurlow. *he*, H. Vaters & R. Ferrages; F. W. Metcalfe; J. G. Edwards; J. Robertson; J. W. Cradock. Local Master Stonex.

JACOBS.—1 and 2, S. Lawson, Preston. 3, Withheld. **ANY OTHER VARIETY.**—1, 2, and Extra 3, Miss F. Seaton. 3, A. & W. H. Silvester. *he*, C. Blunden; Miss F. Seaton. *he*, A. & W. H. Silvester; C. Blunden; W. H. A. Miller; T. Kandale. c, J. E. Palmer; C. B. Cross; Mrs. Wilkison.

SELLING CLASS.—1, L. Watkin. 2, Miss F. Seaton. 3, J. Ford. *he*, J. Ford; H. Thurlow. *he*, J. E. Palmer; Miss F. Seaton; Miss E. A. Eeles; C. Reed; A. P. Byford; H. Thurlow; E. Boston. c, C. Blunden; J. Ford; L. Allen.

CANARIES.

Clear.—Yellow.—1 and *the*, G. & J. Mackley, Norwich. 2 and *the*, Provart and Willis, Norwich. *he*, L. J. Salt. *Buff*.—1, G. & J. Mackley. 2, Provart and Willis. *he*, C. J. Salt. *c*, C. Rumbold, jun. Local, W. Langley.
Marked or Variegated.—Yellow.—1 and 2, G. & J. Mackley. *he*, Provart and Willis; C. J. Salt; A. Colman. *c*, C. Rumbold, jun. *Buff*.—1, Provart and Willis. 2 and *he*, C. J. Salt. *c*, A. Colman. Local, W. Langley.
Clear.—Yellow or *Buff* with *Dark Crests*.—1 and 2, F. Alden, Norwich. *the*, G. & J. Mackley. *he*, W. Langley. Local, C. Rumbold, jun.
Variegated.—Yellow or *Buff* with *Dark Crests*.—1 and *he*, G. & J. Mackley. 2, F. Alden. Local, C. Rumbold, jun.
Cinnamon.—*Jouque*.—1, G. & J. Mackley. 2, C. J. Salt, Burton-on-Trent. *he*, R. Poole. *Buff*.—1, C. J. Salt. 2, R. Poole, Maldon. Local, C. Rumbold, jun.
Selling Class.—1, Provart & Willis. 2, G. & J. Mackley. *the*, Provart and Willis; G. & J. Mackley. *he*, E. Sims. Local, C. Rumbold, jun.

The classes up to the end of the large Game were judged by Messrs. Leno and Nichols; Hamburgs and Ducks by Mr. Leno; and Spanish, French, Malays, Variety, and Game Bantams by Mr. Nichols. Pigeons, Mr. E. Hutton; and Cage Birds, Mr. H. Thurlow.

CARRON POULTRY SHOW.

This was held in the Drill Hall, Stenhousemuir, on the 18th and 19th of December. The following are the awards:—

Spanish.—1, Special, and 2, W. C. Hardie, Carron. 3, J. Hunter, Alloa. *the*, R. Barr, Burnfoot. *he*, W. C. Hardie. *c*, D. McBeath.
Dorkings.—Silver-Grey.—1 and 2, J. Fotheringham, Dunfermline. 3, W. Stuart. *the*, D. Conner, Dunipace. *he*, J. Weir. *c*, J. Malcolm. *Coloured*.—1 and Special, W. Weir, Larbert. 2 and 3, Miss M. A. P. Turnbull, Larbert. *he*, D. Draper. *c*, Mrs. G. Armstrong.
Brahmas.—1 and Special, H. Wyse, Bishoprigg. 2, J. A. Dempster, Stirling. 3, W. Weir. *he*, A. Macdonald. *he*, J. B. Cochran. *c*, D. Macfarlane.
Cochins.—1 and Special, J. Wyse. 2, Mrs. G. Armstrong, Inchture. 3 and *he*, J. Deiman, Altrive. *the*, T. Bruce, Glasgow.
Hamburgs.—Spangled.—1, Special, J. Stewart, Barrhead. 2, D. Forrester, Linlithgow. 3, T. Copland, Denny. *he*, P. McLaren. *he*, J. Blakeley. *c*, H. Stanworth. *Pencilled*.—1 and 3, H. Russell, Clackmannan. 2, J. Ness. *the* and *he*, R. Robertson. *c*, J. Kilgour.
Game.—1, Special, and 2, D. Harley, Edinburgh. 3, J. Marshall. *the*, R. Stewart. *he*, W. Jamieson. *c*, H. Paterson.
Scott-Greys.—1, Special, and *c*, T. Laurie, Linlithgow. 2 and *the*, H. B. Marshall, Airdrie. 3, J. Weir. *he*, J. Mackenzie.
Bantams.—1, J. R. Kilgour. 2, Special, and *he*, G. K. Scobie. 3, Miss B. Elphinstone. *the*, W. McGregor. *c*, J. Graham. *Any other variety*.—1, J. A. Dempster. 2, J. Aitken. 3, J. McGregor. *the*, R. Taylor. *he*, J. Marshall. *c*, T. Allen.
Ducks.—*Aylesbury*.—1, W. Stewart. 2, W. Weir. 3 and *the*, J. Anderson. *he*, Miss Weir. *c*, J. Mackenzie. *Any other variety*.—1, H. B. Marshall. 2, T. Laurie. 3, J. Graham. *the*, T. Allen.
Any other variety.—1 and 3, Mrs. J. Laird. 2, D. Draper. *the*, W. Cochran. *he*, A. Wyllie. *c*, Mrs. W. Steven; Honeyman.
Selling Classes.—*Cock*.—1, J. Marshall. 2, J. Marshall. 3, R. Barr. *he*, J. Anderson. *c*, Wyse. *c*, J. Carswell. *Hens*.—1, W. Weir. 2, J. Norval. 3, J. Carswell. *the*, D. Macfarlane. *he*, D. Macintosh. *c*, J. Fotheringham.

PIGEONS.

Pouters.—1, R. Arbuckle. 2 and 3, A. Robbs. *he*, Miss Shanks.
Pantails.—1, J. Smart. 2, Master J. Blair. 3, P. Joyce. *he*, Master J. Blair; A. Bowman.
Tumblers.—*Common*.—1, J. Glen. 2, J. Day. 3, A. Dick. *the*, J. Cassells. *he*, A. Bowman. *c*, J. Fairley.
Any variety.—1, R. Raines. 2 and *he*, T. Nicol. 3, J. Glen. *the*, J. Cowe. *c*, J. Kilgour.
Selling Class.—1, 3, and *he*, R. Raines. 2, Miss M. A. P. Turnbull. *the*, J. Robertson. *c*, R. Fleming.

Judges.—*Poultry*: Mr. T. Raines. *Pigeons*: Mr. G. J. McLean.

CANTERBURY POULTRY SHOW.

The above Show was held at the Corn Exchange on the 11th and 12th inst. If mere numbers are to be accepted as the criterion of success we can justly congratulate the Committee upon the result of their Show. In other respects we are sorry to record many deficiencies: 965 entries of poultry and Pigeons, together with 161 entries of cage birds, were crowded in a space scarcely large enough to accommodate half the number. The result was, the avenues were rendered so narrow that it was impossible to make any inspection of the lower pens. We once or twice stooped to make the attempt, but found ourselves almost immediately precipitated against the pens by the first passer-by. The Ducks, Geese, and Turkeys were consigned to the regions below, where, in addition to the gaslights, windows were superseded by an innumerable quantity of oil lamps, one being specially retained for the Judge, with an attendant to carry it to assist him in making his awards. We call attention to this matter, as we consider it is incumbent on committees when they accept the entry fees to provide accommodation for the birds where they can be fairly seen. If they are to be consigned to the coal-cellar it should be so stated in the schedule, with any note the Committee may think desirable with regard to the mode of illumination. We have further to complain of the delay in posting the prize cards. They were generally late, and some of them were not on the pens when we returned to town at seven o'clock at night. For some unaccountable reason the auction was also postponed until the following day. This was a most serious matter, as some who had travelled miles to purchase a pen had to prolong their visit longer than they had arranged, which is not always convenient, or to return without them. In the latter case the exhibitor might justly complain of breach of contract and the possible loss to him in the sale of his birds. For the reasons we have referred we are afraid to go into a critical examination of the birds in many of the classes, and only wonder the Judges were as successful as they appear to have been in making their awards.

Dorkings were divided into seven classes. Coloured, cock

and hen.—Mr. Cheesman won with a fine bird, a little faulty in comb. In the class for cockerels the competition was very close between the first and second. The pullets were not a fine lot; some of the largest birds were faulty in their feet. Mr. Cresswell showed a nice pen of Rosecombs here, which were highly commended. Silver-Greys, cock and hen.—Here Mr. Cresswell won easily. Second were rather leggy. Cockerels (pen 62).—First we thought an extraordinary bird for a cockerel. His spurs were hard and well set; he had the advantage of size; in other respects we preferred the second-prize pen. Pullets.—First and second-prize pen were good, the others moderate. Dorkings, Any variety.—Here Mr. Cresswell had an easy victory. *Spanish*.—The old birds were a moderate lot. Mr. Francis was an easy first. The cockerel-and-pullet class contained a few good birds. By far the best cockerel was to have been found in the prize pen (Howard), but he was matched with a miserable pullet, justly deprived him of first honours. *Cochins*.—Buffs were a poor lot. In the class for old birds the second and third prizes were judiciously withheld. In the young class Col. Hassard showed a neat pair. *Cochins*, Any variety.—These classes were the best in the Show. The Whites were superb, Captain Talbot and Mr. Woodgate dividing the honours in the cockerel-and-pullet class. Mr. Anns was third with a nice pen of Partridge. The Dark *Brahmas* we could scarcely see, but the first-prize old cock appeared a good bird; his partner we thought rather deficient in pencilling. Cockerel and pullets.—Mr. Rigg was first-and-cup with a fine pen. The cockerel had many good points, and was matched with a nicely pencilled pullet. Pairs of hens.—First (Jacobs), a nicely pencilled pen. The class generally was a poor one. A few nicely marked birds were to be found, but they were deficient in leg-feathering, and some that were good in other points were not well pencilled. *Brahmas*, Light, old birds.—Here we were pleased to see Mr. Cheshire again in the front ranks with a handsome well-marked pair. In the class for pairs of hens Capt. Savile won with two neat birds, pure in colour, nicely marked, and well feathered in the leg; they were rather small. Cockerel and pullet.—Mr. Petter first with a well-marked pair, Mr. Long second, closely pressed by Capt. Savile. *Game*, Reds, cock and hen.—A good class. First Mr. Jekin; he also showed two other stylish pens. In the young class Mr. Foster was first with a grand pair of Browns; Mr. Warde was second and third. The latter pen were hardly in feather. Any other variety.—First Mr. Foster again with a beautiful pen of Piles. The hen we have noticed on previous occasions. Second (Fitz-Herbert), contained a very Game-looking cock. Young class.—First Mr. Mollett with a smart bird, beautiful in colour and close in feather. *Hamburgs*.—Here the competition was not great. Mr. Long carried off the lion's share of the prizes, and won the cup with pen 303, Golden-spangled—the second-prize Birmingham cock we think, a handsome bird, his only fault being a tinge of white on the feathers between the legs. In the Silver-pencilled class Mr. Norton was first and second. In some respects we liked Mr. Norton's birds: the hens were nicely marked, and the cocks had some good points but were very coarse in the earlobe. *Houdans*.—A splendid class. First Mrs. Vallance, a grand pair; we think they have recently changed hands, and that we have noticed them on previous occasions when shown by Mr. Dring. *Crives* were nearly all good, Mr. Dring's first-prize birds well deserving the cup. *Bantams*.—Game were very numerous. In Reds Mr. Anns was first with a smart pen. The second and third were neat birds, but poor in colour and very loose in feather. Fourth contained a nice cock with a fine head, and beautiful in colour. Game, Any variety, only moderate. Blacks and Whites a large class, but we could only find three good pens, which were correctly selected by the Judge.

Ducks, Geese, and Turkeys were well supported.

The Pigeons mustered 293 entries, all the classes being well filled. *Carriers*.—In cocks Mr. Baker was first with two grand birds; and Col. Hassard in the class for hens showed a bird that well deserved her position. The *Pouter* entries surprised us. Of late we have been accustomed to see classes of only three or four entries, but here we found fifteen entries in the class for cocks, twelve for hens, twelve in the class for cock and hen, and many of the birds were good enough to hold their position in a show of greater magnitude. *Dragons*.—First (Baker), Blues; second, Whitehead. We preferred the latter, the winners being poor in colour, small, and wanting in style. We also liked pen 748, highly commended, belonging to the same owner better. Of the other classes of Pigeons the *Barbs* and *Tumblers* deserve special commendation for quality, and the Any other variety for the many novelties it contained.

Mr. Teebay and Mr. Nichols judged the poultry, and Mr. Esquilant the Pigeons.

THE LATE BURSLEM SHOW.

The Pigeons and Cage Birds were exhibited in the Town Hall, a very suitable, commodious, and light building for the purpose. Since last year a change has been effected in the secretaryship, Mr. James B. Welch filling the place of Honorary Secretary in the

room of Mr. McLachlan, who so ably carried out the first Show, but whose time is so otherwise engaged that he was compelled to relinquish the post. He, however, rendered valuable aid during the holding of the Show.

On visiting the Town Hall and Covered Market the evening previous to the Show, I found the stages and every necessary preparation made. Nothing more was required than the erecting and fixing together the pens for the poultry, Pigeons, and Rabbits. Turner's pens had been hired, but the patience of the Committee, Judges, exhibitors, and visitors were sorely taxed the following day owing to the pens not coming to hand. Towards mid-day several mechanics were engaged erecting pens for the Pigeons, and the noise of the hammers and saws somewhat puzzled many applying for admission at the doors. Towards tea-time Messrs. Holt and Allsop had patiently completed their duties.

I believe it was to Mr. Yardley that Mr. Horner, some time during the day, remarked, "We shall have to do the same as the Canary men—find our own pens." Something most certainly will have to be done to obviate the very annoying blunder occurring elsewhere. But I understand other committees have been disappointed besides the Burslem. Why should this be? I would ask. If a contract is entered into, there should be no risk about the matter. The non-delivery of the pens in proper time is a serious loss to a committee (it was so to the Burslem Committee), and, apart from the extra trouble and annoyance, it is risking the lives of valuable specimens, which have cruelly to be kept prisoners in hampers and baskets until pens are provided.

Birds are very frequently journeying to exhibitions during the whole of a night. It is essential they be fed and attended to the following morning, but if the pens to hold them are not forthcoming, it at once places a committee in a fix, with no blame whatever attached to them.

Exhibitions having increased of late years, and often more than one or two or more occurring on or about the same date, as a necessity more pens are required. Perhaps a little more competition in the letting-out of pens would be worthy of consideration; and if those who have the letting of them out were compelled to enter into a bond to supply them, it would, perchance, better ensure committees receiving the pens by a proper time. As to the outlay incurred by the Burslem Committee in having had timber cut up and engaging wire netting for the pens, will be a matter for future consideration between themselves and others.

As in the Town Hall, similar annoyance occurred in the Covered Market, by only a certain portion of the poultry being penned. The judging was thus delayed, and Mr. Cannan, the Judge of poultry, had to leave Burslem for Swarsea. Mr. Gamon, I understood, took up the remaining classes after he had been officiating over the Dogs, but it was some time before he could make much headway, through some of the birds not having been penned.

Now, apart from this most unfortunate hitch, and another annoying circumstance I will mention below, caused through the absent pens, all would have gone "as merry as a marriage bell," for every provision was made to conduct and carry out the Show in a satisfactory manner. The united endeavours of a painstaking Committee, backed up with an able staff of assistants, at length surmounted the difficulties in a cool, becoming, and praiseworthy way. Mr. Welch, the Honorary Secretary, proved himself equal to the occasion.

The Canaries had been judged in tolerable good time in the morning. Several birds entered were found to be absent from their respective classes. It was not until the Pigeon pens had been erected that the hamper of Canaries forwarded by Mr. Adams, of Coventry, was found. It appeared to have been mixed up with the hampers of Pigeons, some of which it resembled. The birds having been judged, Mr. Barnesby did quite right in not entertaining Mr. Adams's birds, although, had they been in their classes, he (the exhibitor) would have been a much greater winner than he was. They appeared quite warm enough beneath their pepper-moulded feathers, although left out in the cold.—AN EYE-WITNESS.

NORTHERN COUNTIES COLUMBARIAN SOCIETY, MANCHESTER.—DECEMBER 5TH.

WHILE inspecting the great and grand Show of the above Society, threading our way through row after row of pens of birds of the highest quality, we were impressed with the truthfulness of the popular estimate of Manchester character—viz., its originality and thoroughness; and it seemed to us that just as in the past the "Manchester School" left their footprints in the van of commercial and political progress, so now our brother fanciers there have struck out new lines, and have accomplished successfully what has never before been attempted. The Society, which consists of breeders rather than exhibitors, accepting the single-bird system as the base for competition, carried it out

to its legitimate extent by giving classes for hens equally with cocks throughout. The result was a total of 861 entries. The quality in Dragons, Antwerps, English Owls, flying Tumblers, (especially the Mottles), has never been equalled.

The Show as usual was held at Belle-Vue, the dinner, to which about a hundred sat down, being provided by the Messrs. Jennison; the Society this year giving not only a free dinner ticket for each member, but an additional one for a friend. About twenty special prizes, ranging in value from six guineas down to two guineas, were given by gentlemen connected with the Society. The most successful exhibitor was Mr. Walter Hire, who took five of these (value about £20); Mr. Ridpath being next with three, including the cups for the best bird in the Show; Mr. Clay next with three; then Messrs. Taylor, Townson, Gamon, Wright, Blum, Loversidge, Unsworth, and Ord completing the list of special-prizewinners.

[We regret the prize lists were not sent to us as they ought.—EDS.]

DRAGOONS v. HORSEMEN.

ALL our fanciers of the Dragoon proper must feel grateful to the "WILTSHIRE RECTOR" for his manly and straightforward article on this subject in the Journal of December 10th. Certainly, as to the Dragons now exhibited, the winners lay small claim to be Dragons at all. We are going "deeper and deeper still" into the heavy Carrier wattle and head. The Belfast winner, as was correctly noticed in a contemporary paper, "had a beak-wattle many a good Carrier need not be ashamed of." As long as judges encourage these the fanciers of the "light little fellow" (the Dragoon proper), need not exhibit, as the Horsemen and "weight Carriers" they have become always are preferred to the smaller birds. I for one trust soon we may see some change, or these mongrel Carriers will be the sole representatives of what once was the useful English Dragoon.—C. F. STAUNTON.

THE MEALY POUTER: ITS MERITS, &c.

IN the columns of "our Journal" of the 3rd inst., a correspondent writing on the Kilmarnock Show of Pigeons, gives me a good-natured rub on the position in which, as Judge, I placed the Mealy birds at that Show. I will readily allow that after the lengthened discussion on the subject of the "Any other colour or markings" class, it might appear to some that I ought to have placed the Mealy in the position I advocated for it; but it must be remembered that I am not the "Pigeon fancy," I am but an individual member of it, and cannot arrogate to myself the right of raising to the standard platform any bird I please. Thus it was at the Kilmarnock Show—"Reds, Yellows, or Mealies," by existing rules, and of long-standing too, I was bound to give the standard-coloured birds the preference, and would still be so bound until some understanding he come to by the "fancy." I had hoped for a public expression on this matter much more wide than has been given. From the south there is an opinion from my friend "WILTSHIRE RECTOR," plainly set forth in this Journal. Mr. Ure has as plainly given his verdict; Mr. Spence and Mr. Lyall, all on the east side of Scotland; Mr. McNaught, Mr. Gibson, Mr. McCulloch, and one who signed himself "NOVICE," but who is not of that grade, on the west side of the country. From London I have letters, from the far north, from Edinburgh, and the east. I cannot get our friends to send their views to any journal. "Oh! I never wrote for the papers," they say. In Glasgow, and all over the west of Scotland, I find fanciers on this subject of one mind, with three exceptions; one still keeps a good stock of Pouters, the second has given them up long ago, in disgust I presume; and the third, after much trouble, has been marked "not found." Now that there has been a public movement, an evident expectation that I at least should have given the Mealy a better place—viz., treated it as a standard bird, I feel justified in intimating that where I have the honour to judge in future, the Mealy shall have the same consideration as the old standard-coloured Pouters, and be treated as such, whether there be a separate class for it or no, so that my Kilmaurs friend need not harbour the least alarm.

Allow me in a few lines to give my reasons for this decision.

1st. It is without doubt the desire of a large majority of the Pouter fanciers.

2nd. The Mealy Pouter is a bird of colour as uniform as the Red or Yellow, and as liable to the same variety of shades.

3rd. It equals any of the old-named standard birds in beauty, and a Light Mealy certainly surpasses most of them, the colour being simply lovely.

4th. It is a bird bearing the same markings as the old standard-coloured birds, and as a rule it is well marked.

5th. For shape, the paramount point in the Pouter, it generally excels.

And 6th. The Mealy is after all a shade of the Blue, and when it is interbred with that colour improves it in all respects.

Last, and not least, it has become a bird of great value. At

one time it used to be entered in the catalogues at from £2 to £5; now it is entered oftener at from £20 to £50, and a single bird has been claimed at one of the former of these last sums. One of the most elegant hens at the Kilmarnock Show was a Mealy, but she, because of an old custom, had to be left out in the cold. The largest and one of the best Pouters at Aberdeen last year was a Mealy; he was bred near Edinburgh, and belonged to a family of fine Blues.

After seeing the Mealy at the Crystal Palace, no wonder that "WILTSHIRE RECTOR" said, "there ought to be a class for Mealties;" so say we, the great majority of the fancy, and so it is likely to be all over.—JAMES HUIE.

EXTENSIVE BEE-KEEPING.

BEE-KEEPING will ere long be replaced by bee-farming; young and enthusiastic apiarists are fast taking the places of the representatives of apiculture as practised in ancient times. The little badly-made straw skep so suggestive of brimstone is doomed, and its place will be filled with — Ah! that's the question; who will answer it? Mr. Pettigrew boldly predicts a great future for the hive bearing his name. Writers of the opposite school as boldly assert that the bar-frame will be the hive of the future.

One question of prime importance to be answered is, What is the best material, wood or straw? I believe straw to be better than wood for general use for this reason, that it requires more time and trouble to keep a wooden hive free from damp; and the majority of bee-keepers, having other business to attend to, can only give their leisure moments to their bees. I have never seen any dampness in a straw hive. I think the same cannot be said of the wooden one, with only the same attention paid to it. If you eke a skep with wood, the eke will be damp when the straw is quite dry. If the quilt absorbs all the moisture in a wooden hive, then one great objection is removed.

Supposing it be admitted that straw is the better material, then would arise another question: Is the Pettigrew or the bar-frame the better hive? If the former, then the bee-keeper has no difficulty in the selection, he has only to choose according to the size of the swarm a 16, 18, or 20-inch hive. If the bar-frame be voted Al, there is more difficulty in the selection, for there are Sherrington's, Woodbury's, Abbott's, Cheshire's, and many others, most of which I presume could be made in straw.

One objection often made to the skep is, that the bees waste much time in propolising: this may be true of the old-fashioned skep, badly made and loosely put together; but it is not true of the Pettigrew hive of Scotch make, well made, and tightly sewn with cane. In hives of this class, so far as my observation goes, there is only a small quantity of propolis used.

Another objection is, that the skep is "wasteful and murderous," which I suppose implies that the bees have to be smothered before the honey can be taken. That belief is fast dying out, as it is an easy matter to drive the bees, unite them to others, or sugar-feed them.

Another objection is, that you cannot see what is going on inside. A little fustian smoke will enable the bee-master to look his bees in the face, and after a little practice will be able to ascertain the state of the hive. I know you cannot see all the brood beds nor the eggs, but a little observation will enable the amateur to judge whether the hive is in a prosperous condition or not; if a fertile worker or a drone-breeding queen is in the hive. This may be ascertained either from the crown hole or by turning it up, as the elongated cells in the worker comb may be seen a long way down the hive. There cannot from the construction of the hive be that minute inspection to which the bar-frame owes its popularity.

Another objection is, that the skep being of fixed size you cannot contract it or give the extra space sometimes required. If the hive be suited to the size of the swarm, and the bees afterwards require more room, the eke or the super will give it; but suppose the weather be unfavourable and little honey procurable you cannot contract the hive, then I would feed liberally as long as necessary.

Now that the slinger is an established fact, another objection is, that you cannot sling the honey and return the comb; there is consequently a loss of honey through the bees having to make fresh comb for all the honey they gather. That may be true, but is it all profit? I think it is admitted both by the advocates of the bar-frame and the skep, that honey just gathered is not honey of the right quality. According to one theory a certain time must be allowed for evaporation; according to the other theory the bees must re-swallow it, and again deposit it in the cells before it can be honey proper. If with the aid of the slinger the honey be extracted the day it is gathered, it must (if either of the above theories be correct), be of inferior quality. And again, what becomes of the unsealed grubs? Do they go forward into the honey? They are "juicy" no doubt, "and would help to weigh," as a writer in another Journal remarks, when depreciating the hand-pressure practised by the proprietors of the objectionable skep. I for one shall be glad, very glad, of any

invention that will get the honey out of the combs quickly at the right time, for to me honey-taking is the most disagreeable part of bee-keeping. I would rather swarm twenty hives than take the honey from one. A short time ago I was very pleased to hear that one of the slingers was at work a few miles from here, I went to see it. It cleared the cells of clover honey, but it was powerless to remove heather honey, and alas! all my doomed hives had been to the moors.

Another objection to the skep is, that when there comes a glut of honey the brood cells are filled and breeding is stopped. I think the remedy is easy. Give more room above or below, for the bees would rather stow their sweets anywhere than in the centre of the hive.

And now, my brethren of the bar-frames, I am not endeavouring to disparage the hives you recommend. I know but little of them practically. I have only one; I intend, if all be well, to have another or two next season, and by careful observation to test their merits. It is with very great pleasure that I read of the scientific experiments of some of our great bee-masters; yet I should be afraid that the complicated hives which yield such great results under their skilful manipulation and practised management, would, if placed in the hands of very many bee-keepers, bring disappointment and loss.

It is too much the fashion to hoist one's own flag, at the same time endeavouring to trail our opponents' in the dust. Let there be a fair conflict of opinions without personalities, and then the truth will out.—J. OLIVE, *Hartington, Derbyshire.*

THE SENSES OF BEES.

It is rather astonishing that any naturalist should doubt the existence of any of the five senses in bees, which they and many other creatures possess. Francis Huber himself rather doubted that bees possess the sense of hearing. I knew a minister of the gospel and student of nature who maintained that bees are blind. An English baronet and M.P. has recently delivered a very good lecture to the members of a natural history society on the habits of bees and ants. This lecture has been pretty widely published, and contains the results of some very interesting experiments which he has made to test the truth of what some writers have advanced touching the senses and capacities of bees. So far as his experiments go, although they are not conclusive (and this he admits), bees do not deserve the good character which is so often given them. They lack affection for one another, and their devotion to their queen has been over-coloured. They are minus sympathy for suffering companions; have no appreciation of colour, no powers of communicating ideas to each other; and some are more stupid than the rest. These are a few of the convictions obtained by the lecturer from the experiments he made last summer. It is to be hoped that he will repeat his experiments next season, and institute others of a like nature, for bees have many traits of character not yet explained or understood; and there are many secrets in their history difficult to penetrate.

In this letter I propose to take a mere glance at the five senses of bees—viz., sight, touch, hearing, taste, and smelling.

1, *Sight*.—That bees can see distant objects is proved by the fact that they often fly in a straight line to them. That they see near objects may be observed in their going in and out of their hives, and winding their way through a thicket of trees without touching a twig or a leaf. If bees be taken into a room during the day they fly to the light; and if taken into a dark room and shaken on the floor they will travel towards a lighted candle within eyesight of them. I once saw half of a large swarm or stock of bees run along the ground many yards after the moon. A cartload of hives were placed in my garden late one night. One hive was on the point of suffocation; it was placed on the ground and its door opened. Unfortunately the moon was in front of the hive, and as the bees gushed out of the hive in a continual stream they all ran in the direction of the moon. As soon as I discovered the mistake I turned the back of the hive to the moon, and stopped the numerous pilgrims on their march by placing a large door between them and the attractive satellite. The hive was placed in their midst, the noise of which brought them all home.

If two bees be carried in a room, and one of them find a way of escape more readily than the other, we should charitably conclude that the escape is owing more to an accident of good luck than to an evidence of greater intelligence.

2, *Touch*.—What sense but touch enables bees in the darkness of their hives and the darkness of night to lay the foundations of their combs at proper distances from one another, to erect cells and combs of exquisite form and beauty with the smallest possible amount of wax? By the sense of touch eggs are set and tended, food is mixed and administered to young bees in portions suited to their age and wants. Is it not by their sense of touch that bees often recognise their queen, and convey ideas or impressions to one another? Is it by sound or touch that a whole swarm is made aware, all but instantaneously, that its queen is lost? And while the bees are wild with grief, uttering loud

lamentations, they can be as speedily hushed into perfect quiet and contentment by the restoration of their lost queen.

3, *Hearing*.—The lecturer did “not think that bees possessed any powers of hearing. He had shouted, screamed, played on the fiddle, and made other noises, but they took no notice whatever.” Bees can both make and hear sounds. They have a language well understood by themselves. In times of activity they are seldom dumb. A single bee can give a note of alarm or a cry of pain that affects the whole community. With the point of a penknife I once caused a bee at the door of a hive to utter a cry of distress, which instantly produced the responsive hush of disturbance throughout the whole swarm. In a hive of bees there may be heard the sounds of grief, of joy, of peace, of trouble, of starvation, and of suffocation. It is the noise of bees in swarming that keeps them within earshot of one another; and this noise never wholly subsides till all have clustered in a mass like a bunch of grapes on the branch of a tree. If bees were deaf, sounds would be of no avail; but many different instances and occasions could be named in which sound is a very useful instrument in the economy of a hive of bees.

Bees will follow the sound of their own hive in a dark place and in daylight as hounds follow a fox. It were an easy matter to make bees on the floor of a house at night follow the noise of a strong hive from room to room over the whole house, and even from one end of a garden to the other end.

4.—The sense of *taste* in bees does not admit of doubt, though we know very little about it. The fact that bees resort to the water of dunghills and the secretions of an insect does not prove that their sense of taste is imperfect. The saline matter of manure is useful for breeding purposes. If the syrup of sugar be made too weak bees will not take it. If six dishes of honey be placed on a garden walk beside six of good syrup the bees take all the honey first, afterwards the syrup. If honey be given to them in a warm state they generally overload themselves, and cannot fly for some time.

5, *Smell*.—This sense in bees is wonderfully acute. They can smell the nectar of flowers at some distance and go direct to it. We have seen bees on the way to the fields halt over the mouth of an uncorked bottle of syrup in our hands, and drop on to it in an instant. We have seen bees dance around the chimney top, and drop down the chimney to get the honey in the room below, which they had smelled. We have seen honey placed in a dark kind of cellar behind a room 10 yards wide; bees scented this honey, went in by the door, flew across the room, and crawled on the floor of the dark cellar till they reached the honey. The sense of smell in bees is so keen that they can detect the presence of strange bees in their hives, and are greatly offended at the breath and sweat of human beings.

Bees have good memories as well as acute senses. If they feed one day from a plate placed in a particular spot of a garden they will go back next day or next week to see if any more can be obtained. If weather keeps them at home for weeks they remember the place, and go to it as soon as they leave their hives.

We think that bees are very clever little creatures, and that they have the power of conveying ideas to one another. If one or two robber bees find access to the honey of a weak hive or stock, the community to which the robbers belong generally gets all the honey in a very short time. This is almost invariably the case: one hive getting the whole of the booty before the other hives are aware that any booty can be had. If bees have no powers of conveying ideas to their own community, how does it happen that one hive gets all and the rest none? We have frequently resorted (on a larger scale) to the same kinds of experiments that the baronet adopted, but the results and conclusions were quite the reverse of his. Again: When one hive is robbing another there is, generally speaking, no resistance offered, and the robbers never cease till they have carried every particle of honey to their own hive. If the undefended hive be removed from its stand before all its treasures are gone, and a strong hive be placed where it stood, the first robbers that come now find a resistance too great for them, and the whole of the fraternity of the robbing community are speedily made aware that “their game is up.”

In preparations for swarming is there no community of ideas? no internal arrangements made? Twenty or thirty thousand bees are about to emigrate and leave twenty thousand behind in the mother hive; those that go have to take rations to last three days, and to be ready by twelve o'clock! Is all this mere blind instinct? The question cannot be answered in the affirmative by—A. PETTIGREW.

OUR LETTER BOX.

FOWLS FOR LARGE RUN (H. T. P.).—You may easily keep two hundred fowls in the space (seven acres of grass and an orchard), and with the appliances you mention you may keep more if you will. The only thing you must strictly observe is, the fowls must have separate houses for roosting, laying, and sitting. They will not do well if they roost with Ducks or Geese.

BREEDING AGE (Notice).—You do not mention the ages of the fowls; we therefore take it for granted the cock is at the least as old as the pullets. You may set the eggs after the first twelve have been laid.

ENDURANCE OF MALE INFLUENCE (W. A.).—If hens, they are not now probably laying, and they are not likely to do so during the present weather. You may, therefore, put them to any cocks you please, with the expectation that when they lay the eggs will be the produce of your arrangement. If they are pullets, and now laying, we should not be satisfied with less than a fortnight's separation. It is, however, a disputed point, and many good authorities are content with three or four days' separation from one, and two-days association with another.

PORTSMOUTH SNOW.—Mr. A. Kitchen writes to us that the White-booted Bantam cock noticed by our reporter as having roup “was perfectly well when sent, and on his return had no signs of roup.”

CRUVE-CEURS' THROATS AFFECTED (H. B.).—The severe weather has caused some sickness, but we have not heard of much. Cruve-Ceurs are subject to illness while in progress of acclimatising, but as a rule they recover. We find the best treatment for French breeds to be, to keep them on soft food, and to allow them no water, except a drink in the morning and another in the evening. We never allow them to have water by them.

HOUDAN PELLETS (A Puzzled Inquirer).—If you had referred to a recent number of the Journal you would have found in Jacque's “The Poultry-Keeper” an excellent description and figure of a Houdan pullet; but as you have evidently got into a bad strain, we will say that the wattles ought to be small, red, and neatly rounded; that instead of a fluffiness under the chin it ought to be a full beard, reaching back to the eye and closely set. Unless these conditions are present the pullet is comparatively worthless.

NORWICH HEN CANARY NEARLY BOLD (P. W.).—Not having the opportunity of seeing the hen Canary it is more difficult to prescribe; but from what you state it appears the bird has not undergone a thorough moult, understood by many as having been “set fast in the moult.” Had the hen moulted properly it should be in good plumage now. Birds kept in a room heated artificially during the day, but without that artificial heat during the night time, cannot be considered to be in an “even temperature;” and having to exist in such continuous changes they cannot possibly pass through their moulting sickness as those birds kept in a room entirely without fire both day and night. Thus a stoppage in the moult is no uncommon occurrence, and disease and death is thereby often brought about. Your bird evidently is in an unsatisfactory state of health, or it would not be in the condition it is. To remedy a defect in the feathers extreme measures are sometimes resorted to, such as a transition from cold to heat, or *vice versa*, for a week or so, the bird being well kept up in diet. Nothing will more certainly bring on a moult. It is a kind of kill-or-cure system, but sometimes good results from it. If a bird will thus moult freely it will do well; if otherwise, its life is jeopardised with the experiment on nature. If, on the other hand, the deficiency of feathers generally about the hen is caused or brought about through a surfeited scurf upon the skin, somewhat of an oatmeal appearance, the parts affected may be slightly and carefully anointed with oil of sweet almonds, or butter or lard, and the bird put through the washing process—the same as recently published in the Journal. Whichever way the hen is affected it will be well to administer one or two drops of castor oil, followed up occasionally with a little cold soaked bread, to which must be added a few drops of cod-liver oil, or otherwise a piece of beef suet to peck at. This fatty or oleaginous diet keeps up a moderate degree of heat in a bird's system, which in autumn or winter especially is essential. Also supply the hen occasionally with a little bread and milk, a small portion of bicuit mixed with sherry and cayenne pepper, a rusty nail and scraped stick-liquorice in the water, sometimes a little treacle, now and then a spurting of sherry from the mouth over the bird, a few groats, a small piece of salt, a large cage to exercise in, with a bath occasionally, and plenty of grit sand and crushed old mortar, and lettuce, linseed, or cress seed. The above are essential in the way of a change, and if birds are expected to thrive they must be attended to. Disease and weakness is often brought on through neglect, and equal harm is done by continually pampering and supplying them too freely with food in addition to the usual canary, hemp, and German rape seed.

RABBIT-KEEPING (Tyrol).—A hutch such as that described in our Journal of the 10th inst. with a fence round it would answer well for Rabbits bred for table use. The hutch should be of substantial boards, and tarred or painted to exclude wet.

BEES IN WINTER (P. H. P.).—Your first attempts at bee-keeping have been very successful and encouraging, and we hope you will realise a large harvest of honey next year, and an increase of stocks. You need not uncover or examine your hives till the middle of February, when the floor-boards should be well scraped and cleaned. During the winter do not let the bees come out while snow is on the ground. We regret that hive-makers or dealers do not advertise their goods sufficiently. They might double and treble the demand for hives by advertising. Write to Mr. R. McMillan, 41, High Street, Kilmarnock.

METEOROLOGICAL OBSERVATIONS,

CAMDEN SQUARE, LONDON.
Lat. 51° 32' 49" N.; Long. 0° 8' 0" W.; Altitude, 111 feet.

DATE.	9 A.M.				IN THE DAY.						
1874.	Barom- eter at sea and Sea level.	Hygrome- ter.		Direction of Wind.	Temp. of Soil at 1 foot.	Shade Tem- perature.		Radiation Temperature.		Rain.	
Dec.		Dry.	Wet.			Max.	Min.	In sun.	On grass		
	Inches.	deg.	deg.		deg.	deg.	deg.	deg.	deg.	In.	
We. 16	29.597	32.3	32.1	N.E.	37.0	33.8	30.7	49.7	29.7	0.010	
Th. 17	30.017	33.4	33.0	N.	37.2	36.7	28.0	64.0	28.2	—	
Fri. 18	30.217	32.5	32.4	N.	36.9	37.1	30.7	67.5	28.4	0.100	
Sat. 19	29.842	36.1	35.3	N.	36.9	39.4	29.9	49.2	25.7	—	
Sun. 20	29.606	32.4	31.6	N.	36.0	37.3	26.2	63.2	24.0	—	
Mo. 21	29.511	30.0	30.0	N.	36.1	34.1	28.4	49.5	25.4	—	
Tu. 22	29.768	27.8	27.8	S.E.	36.3	31.8	22.7	50.1	21.0	—	
Means	29.796	32.1	31.7		36.6	35.7	28.1	58.4	26.0	0.110	

REMARKS.

- 16th.—Snow 3 inches deep in the morning; slight snow at intervals all day, but very bright at times.
- 17th.—Fine and frosty; snow still on the ground; slight thaw in the evening.
- 18th.—Fair all day, but a slight addition to the snowfall about 11 p.m.
- 19th.—Thawing slightly all day; very dark and snowlike for a short time between 1 and 1.40 p.m.; fine bright afternoon.
- 20th.—A bright frosty day; rather warmer at night.
- 21st.—Another fine frosty day.
- 22nd.—Very cold all day, and the roads and paths very slippery and dangerous.

WEEKLY CALENDAR.

Day of Month	Day of Week	DEC. 31, 1874.—JAN. 6, 1875.	Average Temperature near London.			Sun Rises		Sun Sets.		Moon Rises.		Moon Sets.		Moon's Age.	Clock after Sun.		Day of Year.
			Day.	Night.	Mean.	m	h	m.	h	m.	h	m	h	Days.	m.	s.	
31	TH	Joseph Sabine died, 1837, æt. 67.	43.9	32.4	38.2	9	48	58	43	4	10	5	11	23	3	17	365
1	F	CIRCUMCISION.	43.0	30.3	36.6	8	8	59	3	5	10	5	0	24	3	53	1
2	S	Micheli, botanist, died, 1737.	41.9	28.9	35.4	8	8	0	4	2	3	18	0	24	4	21	2
3	SUN	Josiah Wedgwood died, 1797.	42.6	23.6	35.4	8	8	1	4	15	4	35	0	25	4	40	3
4	M		42.2	27.3	34.4	8	8	3	4	30	5	58	0	26	5	16	4
5	TO		41.4	28.6	34.8	8	8	4	4	42	6	31	1	27	5	43	5
6	W	Royal Horticultural Society's Meetings.	41.1	29.1	35.4	7	8	5	4	47	7	17	2	28	6	9	6

From observations taken near London during forty-three years, the average day temperature of the week is 49°; and its night temperature 35.3°.

MISTAKES ABOUT HOT-WATER ARRANGEMENTS.

SAID a brother horticulturist, "How I envy you your beautiful forcing houses, so well built, so light, with abundance of hot-water pipes for both top and bottom heat, with screw valves on flows and returns, and such a clever system of ventilation too! Anybody could grow plants in such houses as these. You have only to make your wishes known as regards temperature in each division, and by the turn of a screw it can be had to half a degree." Yes, they are nice houses, with plenty of piping, plenty of valves; they are cleverly ventilated, and have many other good points, but they also have two or three serious defects, which I wish to make public for the benefit of other people who may contemplate building or heating such structures.

Well, then, as to heating. I believe my friend expressed what is a very general opinion, that if you have a good boiler, and plenty of piping, with valves for each division, everything ought to work satisfactorily; but in practice we find that more depends on the arrangement of the heating apparatus than upon the shape of the boiler or 100 feet more or less of piping. Hot-water engineers will tell us they do not mind dips; and if their work and material are supplied by contract, you will probably have plenty of them, unless you insist at the first outset, as I always mean to do whenever I have a voice in the matter, not to have one whenever it can be avoided, and it generally can by using a few feet extra piping. What I mean by a dip is when the pipe descends, as it often does, to cross under a doorway or path and rises again. Now, in about 120 yards I have eight such dips, and there need not have been one. They do not dip down to the level of the boiler, and for that reason are not so bad as they might be. Started fairly on a summer day with cold water in all the pipes they will work beautifully, but whenever a severe frost comes they are sure to be troublesome, and the circulation often stops suddenly on one or more divisions, and not always on the same. There is nothing effectual then till the valves are turned down in all the divisions which are heated, and the water, if it flows at all, must of necessity flow through the open ones. In addition to the dips the return pipes inside the houses are placed higher than the flows, and the consequence is that when the hot water in the boiler is forced suddenly to displace some that is quite cold in a portion of the pipes it often commences to do so at the wrong end, although the main flow and return, which are outside the houses, are fixed in the ordinary simple way, one above the other.

But why all these complications and antagonisms to natural laws? Why drive a good servant to do work in a roundabout unnatural way when better results may be obtained by mere gentle leading? We are so apt, in matters horticultural especially, as soon as we begin to

know a little about Nature's workings, to fancy we can do things in a much better way than that old dame ever thought of. We dismiss her without thanks, and begin our work in a diametrically opposite way, but after struggling on for a time, and meeting with many failures, we are very glad to come back again to her own sweet simple laws: hence we find elaborateness and complications mostly with beginners. Simplicity and an approach to perfection comes after a more extended practice.

But some may say, What has Nature to do with cast-iron pipes and screw valves? It is not the pipes but their contents. Nature has laws which regulate the movements of fluids according to their specific gravity. If you place warm water in the bottom of a vessel, and cold on the top of it, Nature will not allow it to remain there, and if by a lot of scheming you can possibly get the old lady under your thumb, you will always find she has a rebellious spirit ready to break out when a favourable opportunity offers; therefore take her into your confidence, acknowledge her indispensable aid, and all will go well.

There is a wrong idea prevalent, too, about valves, many people think you can regulate the flow of hot water in the same way as water that is not heated. So many turns of a screw will admit so much water, and keep house No. 1 say 15° lower than No. 2, while the arrangements in both are exactly the same. It is not so. If the valve is turned sufficiently for the water to flow at all safely, there will be when the water is hot as much flow through the half-opened valve as there will through that which is wholly opened; what is lost in volume will be made up by increased velocity. Engineers know and acknowledge this when they connect one series of pipes with another by means of a single piece of very small diameter: the small connection does not impede the circulation in the least, it goes on just as fast as if the large pipes had been continued throughout. When a number of houses are heated from the same boiler, and some are required occasionally to be kept at a lower temperature than the others, if they all contain the same amount of piping there should be provision for preventing the heat circulating in a portion of the pipes, or there will always be a difficulty in regulating the temperature. In my own case, for instance, all may be left in perfect order at eleven or twelve o'clock on a frosty night, but by five or six in the morning the Primroses and Cinerarias may be luxuriating in a temperature of 65°, and the French Beans and Cucumbers at 40°. I am happy to say I have only one specimen of this kind of heating: other three examples are extremely simple and almost perfect.

There are sometimes mistakes made in having the main pipes too small where a large quantity of pipes are heated from one boiler. We are too fond of 4-inch pipes; much fuel and labour would often be saved by having mains 5 or 6 inches in diameter. I have known cases where the water was boiling over, and yet the pipes were not hot, simply, I believe, because the return

water could not get back to the boiler quick enough.—WILLIAM TAYLOR.

EVERGREEN HEDGE PLANTS.

I HAVE read with much interest Mr. Kent's remarks on evergreen hedges (page 537), and as his list of plants suitable for the purpose is a numerous one, I have in reality but little to add in the way of variety, excepting in one class which he may have omitted inadvertently, and that is the family of *Berberis*, one at least being well adapted for the purpose. *B. Darwinii* makes, perhaps, as good a hedge as anything I am acquainted with, and I am not sure but it would answer the purpose of a fence as well as an ornamental hedge. Its hardwooded sturdy stems, loaded with leaves almost as pretty as the Holly, and in early spring presenting us with a mass of orange-coloured flowers of great beauty, form on the whole a hedge by no means the least ornamental of the whole class, and as formidable a one for a pedestrian to penetrate as the Holly itself, as I have on more than one occasion discovered to my cost. It is also very likely *B. Wallichii*, which somewhat resembles it in habit, may be also equally good, as it grows quite as well, and its foliage in the distance might be taken for *B. Darwinii*, and both bear the knife well. I fear none of the larger-leaved species, now called *Mahonias*, will answer so well, *B. japonica* getting tall, but naked at the bottom, and the same with its compeer *B. Bealii*; while the common *B. Aquifolia* is better adapted for spreading than getting upward, and like the common Gorse, which is now and then used as a hedge, occupies more ground than can often be spared. Whereas, for most ornamental purposes, an upright growth with a stiffness of habit is wanted in a hedge plant; and, as Mr. Kent justly observes, the upright *Euonymus* seem well adapted—better, I should say, than *Ligustrum ovalifolium*, which gets naked at bottom before it ought to do so, even as a solitary plant.

There is one plant not yet mentioned that I think may be worked-in with great advantage in places where it thrives, and that is the Sweet Bay. Some years ago I had occasion to plant a few in a short row, which very quickly of themselves and with scarce a touch of the knife formed a very nice hedge. Its growth being mostly upward, it required little cutting except at top; and where a tall hedge is wanted I am inclined to think this will equal any of the *Arbor Vitæ* or *Cypress* class, besides being more sturdy and less likely to open with heavy snows. But I am not sure but the common *Arbor Vitæ* will sooner become a hedge, as they bear transplanting when of a large size better than many other things, while some of the *Cypresses* are about the worst. Leaving the latter class, however, as Mr. Kent has already exhausted the list of most useful kinds, I think he has not sufficiently advocated the claims of the common tree Box which, next to the Yew and Holly, is most often met with in places where a permanent hedge plant has been reared; and differing as it does from either of the above, I don't think that with all the multiplied species of plants we now possess available for the purpose, that three more suitable than these could be picked out. True, those of *Conifera* grow faster and may attain a greater height in a limited time, but they also look shabby sooner, and seem by the habit they assume to be better adapted for the shelter of nursery stock than to ornament a lawn. The Yew especially carries a stamp of dignity with it that often acts as a preservative to it when many other things are sacrificed to the utilitarian hand of building improvements. A Yew hedge of some antiquity is often so sufficiently respected as to keep bricks and mortar at a distance, and one or two that I have seen are reported to have withstood the rise and decay of two sets of buildings whose presence they embellished. But I fear there is an erroneous impression abroad about the time it takes to form a decent Yew hedge, which under favourable circumstances is not so serious an affair as is supposed. I recollect some years ago planting a hedge, which in six or seven years looked as well as it was needful to do, in fact was hedge-looking and promising in about half that time. But they were rather stunted plants to begin with, they having been transplanted the year before they were finally put in their places, which is an important matter with the Yew, than which I know of nothing that transplants better.

On this head we need not enlarge further; rather let us look round and speculate on the merits of other evergreen shrubs for the purpose of creating hedges or screens, and omitting the *Conifera* for reasons stated above, let us see what else we have

to work upon. Beginning, therefore, with the ordinary evergreens we have *Aralia japonica*, or rather *A. Sieboldii*, a hardy plant, not at all suitable in consequence of its large foliage. Neither are any of the *Arbutus* that I am acquainted with, as heavy snows open them; but I am not sure but a very fair hedge might be made of *Alaternus*. Its glossy green leaves look well, although they are more thin than could be desired for this purpose. But I hardly know what to say of the *Aucubas*, as the choicer late varieties are not sufficiently plentiful to be so applied, although they may very likely do; and for a low hedge or edging of, say, 3 feet high, I don't think anything is better adapted than the common one, which also bears cutting well, only it ought to be done with the knife.

The Sweet Bay I have already recommended, and also one or more of the *Berberises*. Of the varieties of Box I don't know that any exceeds the common tree Box, the greater number of those in ordinary cultivation being varieties of it, and in the distance are not sufficiently distinguished from it to be regarded as distinct species, excepting the one from the Balearic Islands, which, though handsome as a single specimen, is not sufficiently clothed with foliage to make a good hedge plant, and I would not recommend any of the variegated varieties.

None of the *Ceanothus* genus are sufficiently hardy to make hedges, but the two *Colletias*, *C. cruciata* and *horrida*, would make formidable barriers; but they are not evergreens in the ordinary sense of the word, although their stems, which are closely packed together, are green in colour; but as I have in another place advocated the claims of these I need not enlarge further. The white-foliaged *Elæagnus* may be pretty, but I am not sure it would look well; and the *Escallonias* seem disposed to keep near the ground rather than ascend; while the *Euonymus* have been already alluded to, and the common ones are unquestionably good. Gorse is more in the character of a nondescript fence than an ornamental hedge plant, being often enough met with in wild uncultivated districts, which the ordinary Quickset can hardly be expected to do. *Griselinia littoralis*, although one of the prettiest of our evergreens, is not adapted for hedge purposes.

The Holly family are all good, but none more so than the common one; but the merits of this genus might form a chapter in themselves alone, I therefore pass on. The common and Portugal Laurel as well as the *Laurustinus*, the first-named not bearing cutting so well as the common; while the *Laurustinus* ought to be allowed a wider space than is common with hedges usually so called. In fact it never looks so well in a trimmed condition as when left allowed to assume its own natural growth, although I don't know of any plant that will endure the knife better; and in places where it thrives a bank of it, flowering as it often does for eight or nine months in the year, is an object equal in beauty to the most carefully trimmed hedge of any kind.

The *Phillyreas* differ considerably in accordance with the position they are planted in, but *P. latifolia* and *P. levis* would seem to be the best or most likely to make a good hedge, but I can hardly recommend them. Everyone knows the utility of the common Privet, which is superior to that of *L. ovalifolium*; and from what I have seen of the Japan and Chinese species, they seem to lack that density of foliage necessary in a hedge plant. The Evergreen Oak is also not satisfactory in a hedge, the white downy appearance of the under side of the leaf detracting from the green hues expected in a hedge; while none of the *Ruscus* or *Raphiolepis* family seem adapted; and I fear the *Veronicas*, having a New Zealand origin, are also unsuitable, which brings the list to an end.

As I necessarily omitted all *Conifers*, which most of the ornamental hedges exceeding 4 feet in height are often composed of, and which in number form so many varieties, for I have seen the common Spruce kept trimmed to live at a much less height than 3 feet, while *Arbor Vitæ* are met with of great altitude, for Mr. Kent has alluded to all these it is needless to go over the ground again; and as the bulk of the shrubs called American plants in general unsuitable, I cannot remember of anything else in the way of evergreens that can conveniently be worked into this purpose without being supported or in some way or other assisted in making what they profess to be; for a supported mass of evergreens are more in the character of a screen than a hedge, and trelliswork covered with Ivy makes perhaps the best-looking of all tall uniform-looking hedges, and in this way are perhaps more really useful than any other plant I know of. But as other plants are equally eligible, as *Honeysuckle*, *Jasmine*, *Clematis*, &c., they can hardly claim to deserve the name "hedge," which is sup-

posed to be composed of plants supporting themselves. We may therefore be reasonably excused calling the latter screen-plants, and as these might form the subject of an article by themselves we need say no more on the matter of evergreen hedges; but at the same may remark that deciduous ones are also not without their merits. And amongst those having a claim to be called ornamental the Fuchsia does not rank lowest, and some time ago I noticed an ordinary road or lane in Cornwall that had a Fuchsia hedge on the top of a sort of ridge on each side of it, being the only living fence there was, and being in flower at the time I need not say it looked well.

There is certainly nothing gives a district a more dressy appearance than nice well-trimmed hedges. Whatever the objections of those who claim to be authorities in what constitutes rural beauty may be, the hedge is one of the things that common people take a pleasure in; and whether it be the tall carefully trimmed Holly hedge that screens a villa from the highway, the broad roof-shaped Yew hedge that marks the boundary of the dressed ground belonging to the mansion in the sixteenth or seventeenth centuries, or the neatly trimmed quickset which everyone can remember being planted, all and each have their admirers, not alone for their beauty as objects of art, but for their useful purposes as well; and much as hedges have been condemned, or rather were condemned, in purely agricultural districts as encouraging small birds, &c., we are not sure but that even the latter have their good properties, and in places where shelter is required there seems nothing so well adapted to the purpose as the hedge. Some that have been encouraged in the Hop-growing districts have attained a height of upwards of 30 feet, and are trimmed to that height; but as these are mostly of the deciduous class nothing more need be said on the matter. Suffice it to say that the hedge as a feature in the dressed grounds does not occupy so important a position as it did many years ago, the irregular shrubbery effecting the object mostly accomplished by the hedge; but as the latter only takes up a small fraction of the space required for the former its utility is often called upon. And the list of plants now available for the purpose is such as leaves little more to be wished for; and those wishing to have one differing from that of their neighbours can easily obtain it by looking over the list given by Mr. Kent as well as those named above, besides which there are doubtless some adapted to certain localities or conditions that have not been mentioned at all, as the number of hedge plants is almost legion.—J. ROBSON.

SELECTION OF ROSES.

SUMMER ROSES.

I do not recommend summer Roses to persons who keep only a few Roses, nor do I recommend them to be placed in the rosery; but I recommend them to persons who have large domains with long walks and glades, and places away from the rosery. Summer Roses only bloom once in the year, but give an abundant series of from three to five weeks duration. This may be prolonged by duplicates, by cutting-back at different times, and also by removal.

Summer Roses have these good qualities:—They are hardier than the autumnals (excepting *Éillet Parfait*); they are better scented; you may cut them for bouquets without injury to their future prospects; as they make their wood for the next year after blooming, and though they give only one series, they produce probably more Roses in that series than the autumnals do in a season. They are very suitable for bouquets during the London season. Autumnals do not like being cut till after they have dropped their first flowers, the wood is then ripe.

In the year 1860 and the spring of 1861 I lost only three Briar summer Roses out of 150. Only four of my Briar autumnal Roses survived—namely, *Mrs. Bosanquet*, *La Ville de St. Denis*, *Sir J. Paxton*, and *W. Griffiths*. My *Manetti* Roses suffered much, but not so severely.

The following summer Roses are the finest in their class:—*Provence Roses*.—*Dometille Becar*, the old Cabbage Rose. *Damask Roses*.—*La Ville de Bruxelles*, *Madame Zoutman* or *Soetmans*, an improved *Compte Plater*, and still one of the finest in the creamy-white line. *Moss Roses*.—The common Moss, *Crested*, *Gloire des Mousseuses*, *Vandaël*, and *White Bath*. I know of only one good autumnal Moss Rose—viz., *M. E. Ory*. *French Roses*.—*Boule de Nanteuil*, *Kean* or *Shakespeare*, *Cynthia*, *William Tell*, *La Volupté* or *Letitia*, *Napoléon*, *Obl*, and *Triomphe de Jausseus*. *Éillet Parfait* is

too tender for glades, but it is the most beautiful of all the variegated Roses. *Tricolore de Flandres* and *Madeline* are beautiful variegated Roses, strong growers, and hardy, and suit glades and long walks. *Hybrid Bourbon Roses*.—*Coupe d'Hébé*, *Paul Ricaut*, *Charles Lawson*, *Juno*, *Charles Duval*, and *Paul Perras*. *White Roses*.—*Madame Andot*, true flesh; *Queen of Denmark*, very beautiful. *Hybrid China Roses*.—*Madame Plantier*, pure white; *Brennus*, *Chénédol*, *Général Jacqueminot*, the best of its class; *Fulgens* as a weeper, and *Frederick II.* as a lofty pole Rose. These are the cream of the summer Roses, and well known to me, though I do not keep them now.

AUTUMNAL ROSES.

Macartney Roses.—*Maria Leonida*, curious and very beautiful. *Moss Roses*.—*M. E. Ory*. *Hybrid Perpetual Roses*.—These and the Tea-scented *Noisettes* are the most desirable and successful. *Achille Gouod*, *Abel Grand*, *Alfred Colomb*, *Anna Alexieff*, *Baron Adolphe de Rothschild*, *Baron de Bonstetten*, *Baron Chaurand*, *Baronne Prevost*, *Baroness Louise Uxkull*, *Beauty of Waltham* (it is not the same as *M. C. Crapelet*), *Black Prince*, *Caroline de Sansal*, *Charles Lefebvre*, *Claude Levet*, *Comte de Nanteuil*, *Comtesse de Chabillant*, *Countess of Oxford*, *Devienne Lamy*, *Dr. Audry*, *Duc de Cazes*, *Duchesse de Caylus*, *Duchesse d'Orléans*, *Duke of Edinburgh*, *Duchesse de Cambacères*, *Edward Morren*, *Elie Morel*, *Empereur de Maroc*, *Etienne Levet*, *Felix Genero*, *Fisher Holmes*, *Gloire de Ducher*, *Gloire de Vitry*, *Glory of Waltham*, for poles; *John Hopper*, *Jules Margottin*, *Lady Suffield*, *Duchesse de Morny*, *La Ville de St. Denis*, *Leopold Premier*, *Lord Clyde*, *Louis Van Houtte*, only on seedling Briars; *Alice Bureau*, *Madame Boll*, *Madame Chirard*, *Madame C. Joigneaux*, *Mad. Creyton*, *M. C. Crapelet*, *M. E. Boyan*, often like *Madeline*; *M. G. Swartz*, *M. J. Paron*, *M. la Baronne de Rothschild*, *Madame Rivers*, *M. Vidot*, both require rich loam; *Mlle. Annie Wood*, *Madame Louise Carique*, for poles or walls; *Monsieur Woolfield*, *Pierre Notting*, *Madame Victor Verdier*, *Marguerite de St. Amand*, *Mlle. Marie Rady*, *Maurice Bernardin*, *Maréchal Vaillant*, *Mlle. Therese Levet*, *Maxime de la Rocheterie*, a strong-growing, very large, and splendid purplish maroon; *Monsieur Boncenne*, *Pierre Seletzky*, *Prince Camille de Rohan*, *Prince de Portia*, *Princess Mary of Cambridge*, *Senateur Vaisse*, *Souvenir Dr. Jamin*, *Souvenir de Reine d'Angleterre*, *Souvenir de W. Wood*, *Baronne Pelletan de Kinkel*, *Thyra Hammerick*, *Triomphe de Caen*, *Vicomte Vigier*, *Vicomtesse de Vézina*, *Victor Verdier*, and *W. Griffiths*. *Bourbons and Bourbon Perpetuals*.—*Acidalie*, *Souvenir de la Malmaison*, *Baron Gonella*, and *Baronne de Maynard*. *Tea-scented Noisettes*.—*Maréchal Niel*, *Triomphe de Rennes*, *Celine Forestier*, and *Gloire de Dijon*. *Tea Roses*.—*Devoniensis*, *Souvenir d'Elise Vardon*, *Madame Willermoz*, *Souvenir d'un Ami*, *Duchess of Edinburgh*, *Sombreuil*, *Madame Levet*, *Marie Sisley*, *Adrienne Christophle*, and *Madame Margottin*. If the reader selects six, let him take the five first and last Rose, and he will have six of the best. *Sombreuil* I believe to be a China Rose. It has no scent, but is very hardy, and a fine, late, autumnal bloomer.—W. F. RADCLIFFE.

OUR ANEMONES.

THE herbaceous Anemones will thrive in most ordinary soils and situations, but I am inclined to believe, when they are provided with suitable soil and situation, they are more interesting, showing their character much better than when starved and left to linger out a miserable existence.

A deeply-cultivated border of good loam, with well-rotted manure, vegetable matter or leaf mould, a little coarse sand well incorporated together, with good drainage, and watering in dry weather, is essential to their well-doing. If the situation is sheltered, so much the better.

The taller kinds will require staking to prevent their being broken with the wind. They should not be tied into bundles, for that spoils their appearance. A neat stake placed in the centre of the plant, two or three of the centre shoots tied loosely to the stake, and a string of twisted matting loosely round all the stems, arranges them well.

The border should be kept free from weeds and vermin, and with such treatment there will be a chance to succeed.

To make a selection from a numerous family all beautiful would be a difficult task, yet some may appear more attractive than others. *Anemone japonica* should have a place in all herbaceous borders; it does well in partial shade, but delights

in sunshine. Years ago we used to tend it carefully as a greenhouse plant, and it is still useful for that purpose for late autumn and winter decoration. It is easily increased by offshoots and division in spring. Whether *Anemone vitifolia* is a variety of the above I am unable to say, but it is a very desirable plant, and should not be overlooked by the collector of herbaceous plants.

Anemone rivularis is worthy of more extensive cultivation than it is receiving; its beautifully-coloured flowers ought to secure it a place in all collections. *A. sylvestris* is a very choice species, being a late-spring and early-summer bloomer. *A. palmata* is one of the finest of the race, of good habit, dark green leaves, and beautiful yellow flowers; being a spring bloomer it is very desirable.

A. alpina, another early spring-blooming variety, does well on rockwork. It should have thorough drainage. When well established no plant can be more beautiful.

A. sulphurea is very seldom met with; it is not a very attractive plant on account of the paleness of its flowers, yet it is a desirable addition to a collection.

A. japonica alba should be in all collections; *Honorine Jobert*, the gem of all the train, indoors, or out in the border, or in the bed. For autumn decoration no plant can be more beautiful; it will well repay any amount of labour bestowed upon it.

I am inclined to think we have some confusion here about the name. Is not *Anemone japonica alba* and *A. vitifolia* confounded with *Honorine Jobert*? I ask information on this point.

There are many others that are worthy of the cultivator's notice; many useful for beds in the early spring, summer, and autumn, and for exhibition as herbaceous plants. And here I would remark that, in my opinion, all herbaceous plants for exhibition should be grown and exhibited in pots to show their habits; nothing in my eyes looks so distressing in an exhibition as a few bundles of half-withered flowers that are often to be seen placed on exhibition tables.—*VERITAS*.

THE YEAR AND ITS LESSONS.

VERY interesting indeed was Mr. Luckhurst's agreeable review. It is always interesting in the great horticultural fraternity to see how one's brethren fare. Many a lesson which the year has left behind must in the nature of things remain hidden; many important facts and observations must have been born only to be buried as it were, lost in the lapse of time, vanished from trusted yet treacherous memories. Mr. Luckhurst's narrative, apart from its inherent value, teaches another lesson—one to be especially commended to the rising generation of gardeners—viz., the point, force, and value of systematic notation. Sailing without chart or compass never made an admiral yet, and never will. The rocks must be noted, the hidden dangers largely marked, as well as the harbours of refuge have prominent entry. These logs carefully treated will be a mine of wealth to those fortunate enough to possess them. If a man of Mr. Luckhurst's evident skill and accomplishments feels their value, and everyone may be certain that he does, what further can be required as to their extreme importance?

Results of practice can never be so well recorded as at the moment of observation. Thoughts will occur just once in a lifetime; note them, or they are for ever lost. In all log-books, besides space for routine entries, there should be a wide margin for results, another still wider for thoughts and observations. This should be regarded as a bank of knowledge to be drawn from and added to in the progress of life. Besides the mere contents of such a register, the habit of entering is in itself no unimportant educator. It will train the mind to quick and correct judgment—to form its estimates as if by intuition; invest it with clearer, stronger, and more determinate powers of comparison; and will lead imperceptibly, yet not less certainly, to a free, easy, natural, yet correct form of expression. There is nothing here but which is of importance to the gardener of the future; and if a man lacks these qualities, and lacks also ambition to attain them, he may more profitably seek another calling. Depend upon it that is good advice. For the best interest of the whole craft—its real welfare as a profession, as well as for individual success, and, this emphatically for the benefit of those it is intended to benefit—the characters and attainments of its representatives must be run in a more highly-finished mould in the future than has sufficed for the past.

But can such men work? Work! with lines leading to

success drawn straight before him, what equal stimulant can he have? Work! it will be work direct to its purpose—not brain and muscle wasted, not a dead loss of vital force, but a real profitable application of energy correctly applied and at a right time to effect a given purpose. That is the only right way for work to be prosperous, and is what is more and more demanded and expected every day. That is the standard to be aimed at and attained, and if it is deemed too high by some they will be in the wrong place in continuing a gardening career. It is one of the greatest mistakes of the day to encourage a youth to blunder on in a garden who has no ambition to excel, no special aptitude to adorn and add honour to an old and honourable craft. Let us seek to improve its status by every possible means to the common advantage of all. A word to the wise is enough.

The correct and careful tabulation of work, thought, observation, and kindred circumstances suggested by Mr. Luckhurst's paper is one great means to recommend, one of the greatest self-aids that can be mentioned to all anticipating a successful career. By lack of this many valuable hints and sterling points of practice slip into the dark past and are dead—lost for ever, instead of being stored as landmarks of usefulness, valuable to the gardening wayfarer and an honour to the man recording them. The public record of points of usefulness always reflect credit on those who advance them; they are evidence of a generous mind, a will to serve and benefit the generation. Churlishness in gardening is happily dying out. The days of secrets belong to a past age, and any instance now-a-days of a man fearing to record practice lest another should be as wise as he, is every year becoming more closely interpreted as "I am poor myself, my man, and have nothing to spare." But an immense mass of useful hints are withheld from the world by a deterring notion that they are too plain and commonplace to merit notice. That is a great delusion. As a rule, plain successes in common things is the most really useful of all information. If a grower can relate a mode whereby he has doubled his crop of Potatoes, the narration redounds more to his honour and is of infinitely greater service than in dabbling in gases and playing at science. All honour to the man who has courage to relate his common practice of common things. To refrain from stating a fact because it is not "great" is an error of judgment, and withal a too common one. Let it not be supposed that a slight estimate is formed of scientific research. No, no. That is a matter pregnant with advantages inestimable, and there are men to evolve philosophical facts who merit a country's gratitude; but practice, simple practice, is an everyday's work and an everyday's want. Mr. Luckhurst has set a worthy example. It is not given to all to treat as he has treated, but all can emulate and hold a share in the mine of knowledge, and share in the noble work of public instruction. The useful lessons dated fifty miles south of London are hereby supplemented by notes from a locality 130 miles north of the metropolis. The first words of the diary are singularly like Mr. Luckhurst's—viz., "Glorious new year's morning, mild and bright." The month closed as it opened, with rooks building and Snowdrops sparkling on the grass. It was remarkably salubrious throughout, the average minimum night temperature being 33°. A dry month. February was much the same at its opening and close, but with sharp frosts in the middle injuring the heads of Snow's Broccoli, but not harming the fruit buds, as they were not forward. "Not forward," with the mildest winter ever known, the mean temperature of December preceding being 41°, seems strange, but the reason is plain. Sap will not move under heat unaccompanied by moisture. It was dry; the buds were late in spite of the mild temperature, and saved. The average mean temperature of the three months—December, January, February, was 39°, but then the average rainfall in the same time was only 1.02, hence vegetation slept. Under showers at the end of February it awoke rapidly, and on March 11th and 12th 15" of frost were registered. Plum and Pear blossom was showing, but escaped injury. April extremely mild, and towards the end hot, on the 25th 82° being registered in the shade 4 feet from the ground. May was not so warm as April by a daily average of 1°. On the 18th of May was a disastrous frost, leaving orchards a blank. Plums and Pears being better set—more forward—than Apples, had a sprinkling of fruit left, but the latter fruit, except in high and dry situations, was almost absolutely killed. Thousands of tons of Apples were prevented by that one night's frost. June a hot and most trying month. From May 23rd to June 22nd only 0.06 of rain fell. Forest

trees flagging and crops exhausted. July, heat tropical, the 20th being the hottest day known here, reaching 91° (corrected thermometer) in the shade. The heat was followed by the most extraordinary hailstorm ever noted. In twenty-five minutes the ground was covered 3 inches deep with hailstones, averaging three-quarters of an inch in diameter, and at the fronts of buildings it was piled by cartloads. Here succeeded a striking phenomenon. The earth was covered by a dense cloud so thick that the surface could not be seen, whilst the line of sight was brilliantly clear. The upper part of men and things could be seen, the lower parts being wrapped in the earth cloud. It was a weird emotional spectacle, but easily accounted for. The bright sun above was almost overpowering, and the evaporation from the earth consequently great, and would have been invisible but for the hail-covered surface. This cooled the lower stratum of air to the condensing point, rendering the uprising moisture visible like one's breath on a winter's day. Such fruit as the frost left was ruined by this terrible storm. Peas and Beans were cut off the rows, flowers annihilated, and broad-leafed plants riddled as with shot. It was a desolate scene ever to be remembered. The storm track was not much more than a mile wide. August brought showers, and the year was genial until November 11th, when Dahlias were killed at last. Snow fell on the 1st of December, and the ground remains covered to this time, the 24th.

It will be seen that the summer portion of the year has been most trying to the gardener. As an instance of the drought in the growing months may be stated the fact that from the end of March to the 22nd of July only 3.24 inches of rain fell here. Is not that unparalleled in Britain? But what of the crops? First, the land is light, but there has been no scarcity of vegetables, except a few days following the storm. The character of the land was known. The district liability to drought was remembered. The deliquescent nature of salt was recognised. It was used freely. No ground was half dug. It was either worked deeply or mulched (amongst fruits) with manure, and left undug. Peas and nearly all vegetables were not only sown on trenched ground, but sown in trenches. Each crop was deluged once a-week, and an hour or so after the wet surface covered with half an inch of dust to arrest evaporation. This, with all the mulching possible, sustained us. It was feeling the nature of the soil, anticipating the liabilities of drought, knowing the means of mitigating its effects, and applying them—it would have been no use without the application—this pulled us through. Thus closed the year, the ninth and last, of my present sphere of labour—a period in which even a whisper of complaint has not been uttered, and which, in the words of an esteemed employer, "closes an engagement in all respects so successful and satisfactory." That is the end to work for, to be attained. It can only be accomplished by, as it were, a combination of effort. There must be a consideration of weather characteristics, of site, of soil. There must be reading, writing, noting, thinking, working, and above all, the special and particular requirements of an employer must ever be kept in mind. That is the keynote. Get what pleases him. Never mind what others have or think. The right of an employer and the duties of an *employé* are interbound. We must acknowledge that right, and admit the duty. It is the only road to confidence and success. It must be remembered that none of the conditions must stand alone. Reading is no use without thinking, thinking without noting, noting without working, and working itself will never hit the mark unless steadily directed to a given and specially required end. Combine the conditions, and you command success. This is a lesson which many years have taught to be practical, and the passing one proved as trustworthy and recommendable.—J. WRIGHT.

THE GOLDEN CHAMPION GRAPE.

This variety of the Grape Vine caused something like disappointment soon after its introduction, but it is nevertheless a very extraordinary fruit; and its fine appearance, great size of berry, as well as of bunch, and its by no means inferior quality when well grown, will long insure its admittance into most collections. The fruit, however, will not keep well for any considerable time after it has become ripe; consequently it is perhaps unadvisable to associate it with such late-keeping varieties as the Alicante and the Lady Downe's, &c. Its great drawback, however, is its unfortunate propensity to become spotted as soon or even before it becomes quite ripe. It is not, however, of the merits, or demerits of this remark-

able fruit that I am about to write, but merely to narrate what appears to me to be a very remarkable circumstance in connection with it, which is as follows. Some twenty or more years since a house here was planted with the variety of Grape known as the West's St. Peters, and some six or seven years afterwards several of these Vines were grafted with the Black Alicante and the Lady Downe's varieties; and some time after this

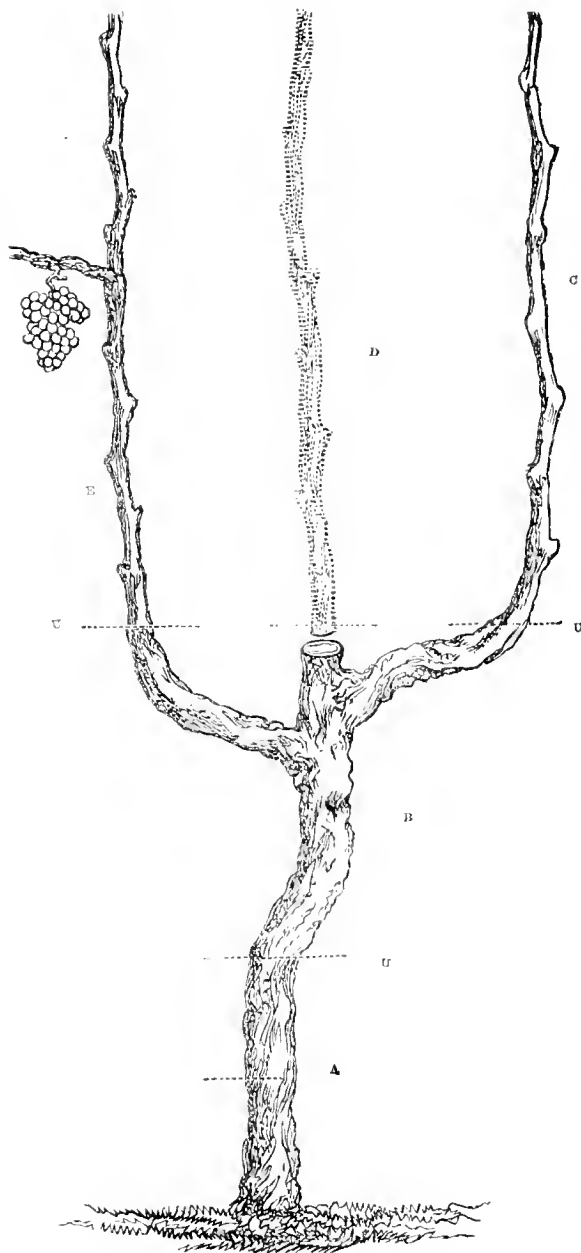


Fig. 164.

- | | |
|---|---|
| A. West's St. Peter's. | E. Trebbiano. |
| B. Black Alicante. | F. Bunch of Golden Champion. |
| C. Mrs. Pince's Black Muscat. | G. The places where the grafts were inserted. |
| D. Golden Champion rod which was removed. | |

one Vine was regrafted with three distinct varieties—viz., Trebbiano, Golden Champion, and Mrs. Pince, each variety forming distinct rods which were annually pruned according to the spurring system, and for several years each rod continued to produce its respective kind of fruit.

Last January, however, when the Vines were pruned on account of the fruit of the Golden Champion variety not keep-

ing like the other late sorts which the house contained, the rod was cut out altogether at a point some inch or two below its union with the Alicante variety, on which it had been grafted as is shown in the accompanying sketch, leaving only the rods of the Trebbiano and the Mrs. Pince varieties, both of which produced their respective kinds of fruit during the present season as usual, with the exception of the Trebbiano rod, which produced upon one spur a bunch of the true Golden Champion variety—true as to size and form of berry and of bunch, colour, flavour, and even to the characteristic spot. This bunch is produced about the middle of the rod, or about 8 feet from where it is united to the Alicante variety, so that several bunches of the true or ordinary Trebbiano variety are produced below as well as above this very unlooked-for production, which appears difficult to account for, although it naturally suggests this question—viz., Can it be ascribed to the circumstance of the Golden Champion variety having for several years grown upon the same stock as the rod of the Trebbiano Vine which has produced the bunch in question? And should this be admitted, it certainly appears strange that this result should not have been developed during the several years when the rod of the Golden Champion sort actually existed upon the stock. It would doubtless be interesting to know if anything similar to this has ever come under the notice of others of your many readers and correspondents, whether in the case of the Grape Vine or in any other kinds of fruit trees. It might also be interesting to know, if possible, something of the origin of the Golden Champion Grape, whether it was the result of a sport, and if so, from what variety; or, if a seedling, from what sort was it raised? Possibly Mr. Thomson may kindly furnish this information.—P. GRIEVE, *Culford, Bury St. Edmunds.*

AURICULAS.

It appears that southern growers have, some of them, had cause to fear that chances of a strong spring bloom of Auriculas stand seriously affected by the profuse show of trusses that came forward in the mild sunny autumn.

Because of "D., Deal's," notes upon this painful subject, in which he says that perhaps half his blooming plants have sent up autumn trusses, I went down to my Auriculas to see how far facts would bear out my impression, that in a very tempting season they had not been misled into much autumn blooming. I took for sample the department that contains the thick cream of the collection. Standing here in rows of seven, there are 231 picked plants, all the full specimens I possess of such delectables as Smiling Beauty, Taylor's Glory, Page's Champion, Col. Taylor, Prince of Greens, Lancashire Hero, George Lightbody, and many others. Of this lot only sixteen have sent up autumn trusses, and some of these came up in so good time, that the autumn stems are yellow and a new heart formed again. I do not think, among the other hundreds of large and small, I could count-out twenty more delinquents, especially if I may omit a few naturally constant offenders.

The plants here in their winter house are accessible under all the snow and ice, an advantage not always to be enjoyed when Auriculas are wintered in frames. Although cold at that time does them no harm, their anxious owner may often "catch it" by exposure at his frames; so a simple well-ventilated house for them through the winter and blooming season is no little and no useless luxury. There may be days and days in the early flowering time when one could but stand in the "cauld blast," shivering at the boxed-up beauties in the frames, but with an inside place the rougher that things outside may be the sweeter the contrast.

My plants are always repotted immediately after blooming—i.e., during May, with exception of those entrusted with the work of seed-bearing, and none of the dismal predictions made to me have ever come true, that I shall thereby have everything in a blaze in autumn. Cool summer treatment, which is no doubt more difficult to afford in the south, is, I believe, a most important point in the culture of this flower. I should not feel content with only shading Auriculas through the summer time in a sunny aspect, for shading is not like shade.

The plants with their large susceptible foliage that looks so spent and unmindful of appearances in the hot months, delight in the more equable temperature, the longer dews, and the cool, clear, uninterrupted light of a north aspect. I agree with "D., Deal," that the cooler atmosphere of the north and our earlier autumnal frosts are all in favour of the Auricula

in keeping the excitable new heart quiet until the spring. In fact, when the plants are in seasonable condition in well-aired quarters, free from damp and dry overhead, there is no kinder winter nurse than rough-handed Jack Frost for this hardy pet. Mine are frozen in their pots now, and are welcome to be so for a good month longer if they like, and I was very glad when the white frosts came with their lullaby after a long autumnal wakefulness.

There will be no more rising now of blooming-stems until the magic month (for Auriculas), of March; and if I may propose a dry toast towards the success and fine character of next year's bloom, I would say, May we all have among our Christmas pleasures that significant one to Auricula growers, of seeing a few snug heads of pips safe over the autumn distemper left visible, but deep and stalkless yet in the hearts of our best green edges.—F. D. HORNER, *Kirkby Malzeard, Ripon.*

NEW BOOK.

Roses in Pots, &c. By WILLIAM PAUL, F.R.H.S. Fourth Edition.

WE welcome with much satisfaction a fourth edition of Mr. W. Paul's "Observations on the Cultivation of Roses in Pots." "The name of Paul," it has been happily remarked, "is almost as intimately associated with the Rose as that of Stephenson with railways, or Cobden with free trade." And this is not all; the Rose must gratefully acknowledge a double debt of gratitude to Mr. W. Paul, of Waltham. The promise in that graceful ode has exactly been fulfilled by him—

"I'll make thee famous with my pen,
And glorious with my sword."

Only the sword has been turned into a ploughshare, or more exactly a garden spade. No man has done more, or indeed so much, for the Rose both by example and precept. There is no higher living authority. But this before us is not merely a book about Roses. Everybody thinks he can grow Roses—at least until he tries; but even everybody does not think he can grow pot Roses. Those glorious pyramids of perfection (one such is pictured most charmingly at page 89) are entirely out of the reach of ordinary gardens—the owners might as well expect to be able to grow their own Pine Apples! But still, in this age of luxury, with the amount of glass and gardeners now to be seen in every direction, it is marvellous that more should not be made of this queen of flowers in the very most fascinating of all the forms in which she presents herself. It is a field into which amateurs have as yet hardly ventured. The names of exhibitors of good pot Roses may still almost be counted-up on one hand; while Mr. W. Paul—like that Welshman in the days of the Deluge, of too old a family to associate with Noah, and who therefore had an ark of his own—Mr. Paul, as all know, gives the public a special most delightful spring exhibition of pot Roses.

From the writings of Mr. Paul it is sufficiently evident that, where proper appliances exist, the cultivation of even exhibition specimens need present to careful cultivators no insuperable difficulties. In his preliminary remarks here he tells us how the idea of cultivating pot Roses for exhibition originated—namely, in "prizes offered from the Horticultural Society of London," and how the thing at first hung fire. He has now the satisfaction of telling us in the preface to this fourth edition: "This system of cultivation has created some stir among the lovers of Roses; and from the decided superiority of the specimens exhibited during the present year it would appear that Roses are well adapted for pot plants, and are likely to engage the attention of numerous plant-cultivators." That which is merely here alluded to may well be reproduced from one of the descriptions in the journals of the day. The date which delightful old Jacob (see page 81) wrote up in mysterious symbolage, "Syd., May 8th," has its place undeniably in many grateful memories. We will just recall the scene that May morning at the Crystal Palace:—"Everywhere the eye rested upon banks of glorious flowers, which made the atmosphere heavy with fragrance." "One hardly knew which to admire most, the magnificence of the plants or the taste displayed." As we then took occasion to remark in "our Journal," Mr. W. Paul was to be congratulated "on the opportune time which he selected for his exhibition, which enabled His Imperial Majesty the Czar to see what English-grown Roses really are." It was remarked at the time that the Emperor Alexander "showed a strong inclination to enjoy it longer than the programme marked out for him allowed of." Perhaps, if there was one thing wanting, it was that our other

imperial visitor was not in time for it. Assuredly it would have had a special notice in the Shah's journal, unless, indeed, he had thought it right to imitate the founder of his faith and abstain from the visit, on the same principle as Mahomet, who is said to have refused even to look down upon Damascus, saying that only one paradise was allotted to mortals, and that he, for his part, would not enter upon his here!

In this little work of ninety-one pages will be found every direction that can possibly be required. The explanations are much assisted by well-executed woodcuts. Though a book of now some standing, it is so well written-up to the present day that we observe in the Rose catalogue even some of the coming Roses for the spring of 1875, notably those two from Waltham, with regard to which we have had the gratifying announcement that Mr. W. Paul considers them the finest he has ever been able to introduce to the public, the Queen of Waltham and the Star of Waltham. In the closing portion, to which we have already alluded, will be found a most amusing and yet strictly scientific autobiography, written by one of those plants of Mr. Paul's which have Royalty for their patrons and admirers, and illustrated as it goes along with some very effective and instructive little drawings.

We now refer shortly to the general contents. Mr. Paul begins by affirming that to have Roses all the year round is quite practicable if we grow them in pots. "Three sets of plants (only) are requisite to accomplish this. The first, which are grown out of doors or in a cold pit, will flower from May till November; the second, which are retarded, will flower from November till February; and the third, which are forced, from February till June." He proceeds then to tell how to retard and how to force. There are some excellent remarks upon choice of varieties, and on the characteristics of those best suited for pot culture. These he defines as—1, Elegance of Habit; 2, Contrast of Colour; 3, Abundance of Bloom; 4, Form or Outline; 5, Duration; and 6, Sweetness; while the quality of duration is explained as holding "the flowers in perfection for some days—a most necessary thing, since to obtain a number of flowers on one plant in all the various stages of bloom at a given time is one great point the cultivator of Roses in pots for exhibition should never lose sight of."

Lists of the best climbing and forcing varieties are supplied with a fullness which leaves nothing to be desired; while at the same time we have laid down that most important and often overlooked principle in Rose-growing, "that it is better to have one first-rate Rose growing in two positions, than a greater variety comprising kinds of inferior merit." Without some such guidance, as that which is here offered, the first few years of an exhibitor are really mainly taken up with finding out what will not answer, and what to get rid of.

On page 38 we have a list of yellow Roses. What is a yellow Rose? has often been queried. Here we are told by the Royal Botanic Society, and the list has been corrected so as to take in those of the present day.

The enemies, again, of pot Roses are enumerated. We are forearmed against the caterpillar: "When the buds first break, and continually after, the plants should be keenly sought over to destroy the grub and caterpillar, which travel from shoot to shoot, eating-out the growing points. Some of these are mere threads in appearance, and can scarcely be detected till some mischief is done. A finely-pointed knife or a large needle is the best instrument for this purpose." The aphid or green fly is next discussed, and here we cannot forbear from quoting wholesale from the autobiography. It is only fair to begin *ab ovo*. The favourite of Royalty begins life as "a cutting!"—

"In about eight days the juices exuding from the top and bottom of my stem had formed a callus, and a few days later white porous roots began to form, with sponge-like points, that sucked up the moisture from the soil."

A few months elapse, and now the cutting is in the forcing house, a sprightly young plant.

"Everything around me was so neat and comfortable that I began to think I had arrived at the summit of plant happiness, when suddenly there came—from where I know not—a minute insect, the colour of my leaf, which caused me great pain and annoyance. At first I looked upon her as a mere visitor, attracted hither by the warmth and comfort of my dwelling; and though it was irritating enough to have her stalking over the still delicate membrane of my leaf, this I might have borne on account of good nature. But alas! I soon found that not only had she made up her mind to dwell on my leaves, but also to live on my juices. Puncture after puncture was made with

rapid succession, and soon a host of young ones rose to join in the attack. A few days only had elapsed since the appearance of the first of this numerous race; but their voracity was so great that my roots could not meet the demand thus made upon them. In vain I twisted my leaves; the more languid the supply the more violently did they suck my juices, and my health began to decline; when one day the door opened, and John, whom I had not seen for some time, came hobbling in with a stick. With a single glance of the eye he saw how the case stood, and forgetting his rheumatism, he dropped his crutch, and hopped out of the house, shouting, "Jacob—green fly—tobacco!"

One other extract must be made, for it bears upon one of the special questions of the day, which has more than once been hotly contested in these columns, and that is the comparative merits and demerits of the Manetti. That delightful old John is discussing it with a younger gardener. It is not hard to gather from their conversation what is our author's opinion:—

"JOHN.—Does it not grow well?"

"SIMON.—Yes, too well. It grows so well that there is now nothing but itself in the way of Roses left in the garden."

"JOHN.—But are not the young plants fine?"

"SIMON.—Yes; fine the first year, but seldom afterwards. With us ground shoots spring up in quicker succession, and ten times more numerous, than from the Dog Rose; and no amount of watchfulness on my part could prevent the exhaustion and death of the sorts budded on it."

"JOHN.—The stock has been successful, then, if the sorts budded on it have failed? But do they not say it is more excitable than any other stock, and that Roses break and blossom earlier on it?"

"SIMON.—Excitable! yes. Last spring my Roses broke a fortnight earlier than other people's, and were frosted in consequence, while theirs remained unscathed. But if you would like to try it I will send you some."

"JOHN.—Thank you. I have already tried it. I wanted a confirmation or contradiction of my conclusions, and your opinions are in exact coincidence with my own. It may do well under special circumstances, but it is not the stock for general use."

With this we unwillingly take our leave of a most agreeable mixture of the *utile* with the *dulce*. A famous physician, when asked by his patients what course they were to pursue after leaving him, is said to have answered invariably, "Buy my book!" We would say the same to all who have thus far accompanied us, There is no better two-shillings' worth—Buy the book!

THE LUCY GRIEVE PEAR.

It happened very long ago,
How long?—we scarcely seem to know—

A fair young child, in joyous glee,
Pluck'd with daring little hand

A ripe Pear from a tree;

And ate the mellow fruit she chose

With all the zest which childhood knows,

But marvelled in its inmost core

Some dark brown pips to see;

And marvelled more to hear it told

That each small pip, so plump and bold,

Might yet become a tree.

Then thoughtfully she pondered long

How this thing could be so,

And lastly in a pit of earth

A tiny seed did sow.

That seed became a living plant,

And claimed her willing care,

While promises were kindly made

With friends its future fruit to share.

In time the plant became a tree,

With foliage bright and fair—

The child a merry little maid,

In favour everywhere.

Affection cherished still the tree,

Which cold and storm could brave,

But long before it bore a fruit

The maid was in her grave.

And when at last it ripened fruit,

And they who well do know,

Declare, on England's fertile soil

No richer e'er did grow;

And say how that a fruit so fair

Its raiser's name should bear,

And be hereafter always known

As little Lucy's Pear.

GARDEN LABELS.—I have seen the different letters in "our Journal" respecting garden labels, and amongst others the suggestion respecting China labels (the names being printed by the manufacturers). It struck me, however, that enamelled iron, such as you see now at most railway stations in the

shape of advertisements, &c., would be far preferable, as it would not be likely to break, and I should fancy it would stand any amount of weather.—WALTER W. BURNETT.

EARTHENWARE COPING.

Its advantages are so evident that it seems to require no notes from me, combining as it does a good permanent coping, fruit-protector, and gutter to carry off the rain. A slight slope would, of course, be necessary, and a cast-iron shouldered pipe, which I have indicated by dotted lines in the sketch, could receive the water, and be carried down the wall into a sunken tank. I should have the coping made of two sizes—viz., 2 feet 2 inches for a 9-inch wall, and 2 feet 6 inches for one of 14 inches. I fancy that it might be advisable, after fixing, to

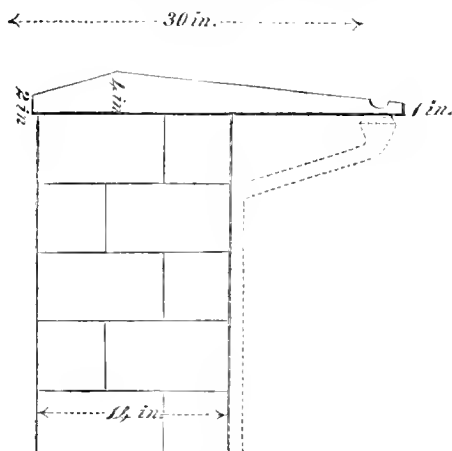


Fig. 103.

paint the coping on the upper side and ends with "silicate zopissa," or some other compound, to prevent the rain entering the porous material, thereby giving a handle to the frost. I should be glad, if any brickmakers (at whose service I place it) adopt it, if they would name it the "Elliott Coping."—J. E.

DO VARIETIES WEAR OUT, OR TEND TO WEAR OUT?

By PROFESSOR ASA GRAY.

This question has been argued from time to time for more than half a century, and is far from being settled yet. Indeed, it is not to be settled either way so easily as is sometimes thought. The result of a prolonged and rather lively discussion of the topic about forty years ago in England, in which Lindley bore a leading part on the negative side, was, if we rightly remember, that the nays had the best of the argument. The deniers could fairly well explain away the facts adduced by the other side, and evade the force of the reasons then assigned to prove that varieties were bound to die out in the course of time. But if the case were fully re-argued now, it is by no means certain that the nays would win it. The most they could expect would be the Scotch verdict, "not proven." And this not because much, if any, additional evidence of the actual wearing-out of any variety has turned up since, but because a presumption has been raised under which the evidence would take a bias the other way. There is now in the minds of scientific men some reason to expect that certain varieties would die out in the long run, and this might have an important influence upon the interpretation of the facts that would be brought forward. Curiously enough, however, the recent discussions to which our attention has been called seem on both sides to have overlooked this matter.

Some varieties may disappear or deteriorate, but yet not wear out—not come to an end from any inherent cause. One might even say, the younger they are the less chance of survival unless well cared for. They may be smothered out by the adverse force of mere superior numbers; they are even more likely to be bred out of existence by unprevented cross-fertilisation, or to disappear from mere change of fashion. The question, however, is not so much about reversion to an ancestral state or the falling-off of a high-bred stock into an

inferior condition. Of such cases it is enough to say that when a variety or strain of animal or vegetable is led up to unusual fecundity or size or product of any organ, for our good, and not for the good of the plant or animal itself, it can be kept so only by high feeding and exceptional care; and that with high feeding and artificial appliances come vastly increased liability to disease, which may practically annihilate the race. But then the race, like the bursted boiler, could not be said to wear out; while if left to ordinary conditions, and the race allowed to degenerate back into a more natural if less useful state, its hold on life would evidently be increased rather than diminished.

As to natural varieties or races under normal conditions sexually propagated, it could readily be shown that they are neither more nor less likely to disappear from any inherent cause than the species from which they originated, upon which, indeed, only vague conjectures can be offered. The matter actually under discussion concerns cultivated or domesticated varieties only.

First, will races propagated by seed, being so fixed that they come true to seed, and purely bred (not crossed with any other sort), continue so indefinitely, or will they run out in time—not die out, perhaps, but lose their distinguishing characters? Upon this, all we are able to say is that we know no reason why they should wear out or deteriorate from any inherent cause. The transient existence or the deterioration and disappearance of many such races are sufficiently accounted for otherwise. As in the case of extraordinarily exuberant varieties, such as mammoth fruits or roots, by increased liability to disease, already adverted to, or by the failure of the high feeding they demand. A common cause, in ordinary cases, is cross-breeding through the agency of wind or insects, which is difficult to guard against. Or they go out of fashion and are superseded by others thought to be better, and so the old ones disappear.

Or finally, they may revert to an ancestral form. As offspring tends to resemble grand-parents almost as much as parents, and as a line of close-bred ancestry is generally prepotent, so newly originated varieties have always a tendency to reversion. This is pretty sure to show itself in some of the progeny of the earlier generations, and the breeder has to guard against it by rigid selection. But the older the variety is—that is, the longer the series of generations in which it has come true from seed—the less the chance of reversion: for now, to be like the immediate parents, is also to be like a long line of ancestry; and so all the influences concerned—that is, both parental and ancestral heritability—pull in one and the same direction. So, since the older a race is the more reason it has to continue true, the presumption of the unlimited permanence of old races is very strong.

Of course the race itself may give off new varieties; but that is no interference with the vitality of the original stock. If some of the new varieties supplant the old, that will not be because the unvaried stock is worn out or decrepid with age, but because in wild nature the newer forms are better adapted to the surroundings, or, under man's care, better adapted to his wants or fancies.

The second question, and the one upon which the discussion about the wearing-out of varieties generally turns, is, Will varieties propagated from buds—i.e., by division, grafts, bulbs, tubers and the like, necessarily deteriorate and die out? First, Do they die out as a matter of fact? Upon this, the testimony has all along been conflicting. Andrew Knight was sure that they do, and there could hardly be a more trustworthy witness.

"The fact," he says, fifty years ago, "that certain varieties of some species of fruit which have been long cultivated cannot now be made to grow in the same soils and under the same mode of management which was a century ago perfectly successful, is placed beyond the reach of controversy. Every experiment which seemed to afford the slightest prospect of success was tried by myself and others to propagate the old varieties of the Apple and Pear which formerly constituted the orchards of Herefordshire, without a single healthy or efficient tree having been obtained; and I believe all attempts to propagate these varieties have, during some years, wholly ceased to be made."

To this it was replied, in that and the next generation, that cultivated Vines have been transmitted by perpetual division from the time of the Romans, and that several of the sorts, still prized and prolific, are well identified, among them the ancient Græcula, considered to be the modern Corinth or Currant Grape, which has immemorially been seedless; that

the old Nonpareil Apple was known in the time of Queen Elizabeth; that the White Beurré Pears of France have been propagated from the earliest times; and that Golden Pippins, St. Michael Pears, and others said to have run out, were still to be had in good condition.

Coming down to the present year, a glance through the proceedings of pomological societies, and the debates of farmers' clubs, brings out the same difference of opinion. The testimony is nearly equally divided. Perhaps the larger number speak of the deterioration and failure of particular old sorts; but where the question turns on "wearing out," the positive evidence of vigorous trees and sound fruits is the most telling. A little positive testimony outweighs a good deal of negative. This cannot readily be explained away, while the failures may be, by exhaustion of soil, incoming of disease, or alteration of climate or circumstances. On the other hand, it may be urged that, if a variety of this sort is fated to become decrepid and die out, it is not bound to die out all at once, and everywhere at the same time. It would be expected first to give way wherever it is weakest, from whatever cause. This consideration has an important bearing upon the final question—Are old varieties of this kind on the way to die out on account of their age or any inherent limit of vitality?

Here again Mr. Knight took an extreme view. In his essay in the "Philosophical Transactions," published in the year 1810, he propounded the theory not merely of a natural limit to varieties from grafts and cuttings, but even that they would not survive the natural term of the life of the seedling tree from which they were originally taken. Whatever may have been his view of the natural term of the life of a tree, and of a cutting being merely a part of the individual that produced it, there is no doubt that he laid himself open to the effective replies which were made from all sides at the time, and have lost none of their force since. Weeping Willows, Bread Fruits, Bananas, Sugar-cane, Tiger Lilies, Jerusalem Artichokes, and the like, have been propagated for a long while in this way, without evident decadence.

Moreover, the analogy upon which his hypothesis is founded will not hold. Whether or not one adopts the present writer's conception that individuality is not actually reached or maintained in the vegetable world, it is clear enough that a common plant or tree is not an individual in the sense that a horse or man, or any one of the higher animals is, that it is an individual only in the sense that a branching zoophyte or mass of coral is. *Solvitur crescendo*. The tree and the branch equally demonstrate that they are not individuals, by being divided with impunity and advantage, with no loss of life, but much increase. It looks odd enough to see a writer like Mr. Sisley reproducing the old hypothesis in so bare a form as this:—"I am prepared to maintain that varieties are individuals, and that as they are born they must die, like all other individuals." "We know that Oaks, Sequoias, and other trees live several centuries, but how many we do not exactly know. But that they must die, no one in his senses will dispute." Now, what people in their senses do dispute is, not that the tree will die, but that other trees, established from cuttings of it, will die with it?

But does it follow from all this that non-sexually propagated varieties are endowed with the same power of unlimited duration that are possessed by varieties and species propagated sexually—i.e., by seed? Those who think so jump too soon at their conclusion. For, as to the facts, it is not enough to point out the diseases, or the trouble in the soil, or the atmosphere to which certain old fruits are succumbing, nor to prove that a parasitic fungus (*Peronospora infestans*) is what is the matter with Potatoes. For how else would constitutional debility, if such there be, more naturally manifest itself than in such increased liability or diminished resistance to such attacks? And if you say that, anyhow, such varieties do not die of old age—meaning that each individual attacked does not die of old age, but of manifest disease—it may be asked in return, what individual man ever dies of old age in any other sense than of a similar inability to resist invasions which in earlier years would have produced no noticeable effect? Aged people die of a slight cold or a slight accident; but the inevitable weakness that attends old age is what makes these slight attacks fatal.

Finally, there is a philosophical argument which tells strongly for some limitation of the duration of non-sexually-propagated forms, one that probably Knight never thought of, but which we should not have expected recent writers to overlook. When Mr. Darwin announced the principle that cross-fertilisation

between the individuals of a species is the plan of nature, and is practically so universal that it fairly sustains his inference that no hermaphrodite species continually self-fertilised would continue to exist, he made it clear to all who apprehend and receive the principle that a series of plants propagated by buds only must have a weaker hold of life than a series reproduced by seed. For the former is the closest possible kind of close breeding. Upon this ground such varieties may be expected ultimately to die out.

The conclusion of the matter from the scientific point of view is, that sexually-propagated varieties or races, although liable to disappear through change, need not be expected to wear out, and there is no proof that they do; also, that non-sexually-propagated varieties, though not liable to change, may theoretically be expected to wear out, but to be a very long time about it.—(*New York Tribune*.)

THE SNOWBERRIES.

BOTANISTS and gardeners alike have got things a little mixed in regard to these plants. Dr. Asa Gray has recently contributed a paper to the Linnean Society's Journal, clearing up some matters in relation to the botanical question; and we may as well say a few words as to the other. The common Red Snowberry of our gardens—the Indian Currant of some localities—is usually referred to in our nursery catalogues as *Symphoria glomerata*. This is Pursh's name. The generally accepted name is that of Michaux, which is *Symphoricarpos vulgaris*. It is rather common in shrubberies, but not so much as it deserves to be. Dr. Gray makes eight species; but this is the only one with red fruit. Dr. Gray, however, describes a new species found in Nevada, with flowers half an inch long, naming it *S. longiflorus*, the fruit of which he has not seen. It is probably white. The other species—common in gardens—is the White Snowberry, and is *S. racemosus*, also of Michaux. These two are the only ones that seem so far to have got into cultivation. There is another species allied to the White Snowberry, which grows west of the Mississippi, and east of the Rocky Mountains, which is a stronger grower than that in our gardens, and is worth introducing. This is *S. occidentalis* of R. Brown. There is another very pretty little bushy species in Colorado, which most of us who have collected have named in our herbariums *S. montanus*. This Dr. Gray now refers to one previously named by him in Wright's "Plants of Texas," *S. rotundifolius*. The true *S. montanus* is a Mexican species. Three supposed Mexican ones, including *S. montanus*, are united under the one name *S. microphyllus*. The other species not yet in cultivation is *S. mollis* of Nuttall, in California, and *S. oreophilus*, which also has been confused with *S. rotundifolius*, as *S. montanus* in Colorado herbariums. In the paper Dr. Gray has some interesting observations on the nature of the fruit, showing that it is not a berry as some botanists believe, but a species of drupe.—(*American Gardeners' Monthly*.)

ONCIDIUM LEUCOCHILUM.

THE subject of our present illustration is a member of one of the largest families of Orchidaceous plants, comprising as it does several hundred species and varieties, the majority of which are deserving a place in the amateur's collection. As a genus, *Oncidium* is nearly allied to *Odontoglossum*, but differs principally in the shape and form of the labellum or lip.

The prevailing colour in the flowers of the various species and varieties of *Oncidium* is some shade of yellow, but there are some striking exceptions to this rule, and *O. leucochilum*, or the White-lipped *Oncidium*, is one of them. *Oncidiums* have a wide geographical range, for whilst some are found at elevations ranging from 7 to 10,000 feet, others descend to low elevations and enjoy tropical heat, and many are found scattered through various parts of Brazil and the West Indian islands.

Oncidium leucochilum was first introduced to this country some forty years ago from the mountain regions of Guatemala, and I have invariably found it succeed best with me under cool treatment; but although this species has grown satisfactorily with me, I saw it some few years since infinitely finer in the then rich collection of the late Thomas Dawson, Esq., of Meadow Bank, under the management of Mr. Anderson. It thrives admirably in the company of such plants as *Odontoglossum grande*.

In potting, use good rough fibrous peat and sphagnum

moss in about equal parts, drain the pots well, and elevate the base of the plant well above the rim of the pot, for although this species delights in an abundant supply of water, it must upon no account be allowed to stagnate about the roots. The



Fig. 166.—*ONCIDIUM LEUCOCHILUM*.

pseudobulbs are large, more or less corrugated, somewhat ovate and dark green, as also are the large and ample leaves. The flowers are produced during autumn usually, although I have seen the species in bloom during early summer. The spike is long and much branched, bearing a profusion of its bright and attractive flowers, which are in the sepals and petals greenish yellow, transversely barred with blackish brown, whilst the large lip is pure white. The blooms last a long time when cut and placed in water, and they produce a

chaste and pleasing effect when used for the embellishment of a lady's hair.—*EXPERTO CREDE*.

THE BEAUTIFUL AND USEFUL INSECTS OF OUR GARDENS.—No. 28.

A curious fact it is, seemingly of the nature of a paradox, that many of the smaller creatures which, from their size,

might be thought less exposed to dangers than larger species of animals, keep themselves carefully concealed from view during a great part or the whole of their life. Walking through lanes, woods, or fields, a very slight amount of observation acquaints us with what quadrupeds or birds may be about, but it needs pains and trouble to find out the insects. So it is also, in a measure, with regard to the habitants of the garden, where if, as it may be, there is a smaller average of insects when the ground is properly looked after, those that are present are well up in the art of hiding. This may indeed be truly said both of our friends and our foes, the former also very frequently displaying much caution, not so much from dread of man as from an instinct leading them to endeavour to surprise their prey. Our most conspicuous friends, of course, are the various flower-fertilisers, of some of which we have spoken, and their habits necessitate their exhibiting themselves, oft-times to the advantage of birds and predacious insects.

The Drowsy Dor (*Geotrupes stercorarius*), called by several English appellations, one rather contradictory to the first given—namely, the "Flying Watchman," if not always seen is heard and felt, as it has a particular fancy for knocking itself wildly against by-passers at the hour of eve, thereby gaining their anathemas. In the day we not uncommonly see it by roadsides, apparently, one would think, intent upon suicide from the reckless way in which it crawls along places where it is likely to be stepped upon. The truth is, perhaps, that from most birds these insects deem themselves secure (if they think at all), through their dull colours and horny armour, and yet there are birds that seize and break them up. The sight of a Dor the other morning toiling over a piece of garden ground freshly manured, not like Atlas with the world on his back, but with a flat mass of the substance, which hid the beetle completely, and presented the odd sight of an inanimate object moving, seemingly without anyone impelling it, reminded me that the unpleasant-looking stercoraceous beetles are useful as disintegrators or decomposers of manure. They ply their trade in more ways than one according to circumstances; and though they eagerly pounce upon freshly-dropped dung, and adapt it to the uses of their progeny, the Dors also visit dried manure, and no doubt help to bring about chemical changes in it, rendering it nutritive to the soil. Foreign species, as shown in our illustration, form balls or pellets of dung, and roll these in concert—a habit reported of our own species of *Geotrupes*, but not confirmed. Their ordinary mode is to drive burrows or tunnels under the manure, carrying down the substance, and depositing eggs therein. Occasionally, like my acquaintance of the other morning, the beetles carry or push masses of dung to a spot where they wish to burrow for some reason best known to themselves. It is needless to describe a beetle familiar to most residents in the country. One of its peculiarities is to be much infested with brown parasites, which cling determinedly to the under side. On the earth the Dor moves clumsily; as Mr. Staveley says, "It occasionally stops to give one leg or other a kind of weak flourish in the air, like an old gentleman talking to himself, and suiting the action to the word." This may be an experimental process just to see that his limbs are all right for some effort of strength. That the beetle has really plenty of muscle we can easily know by laying hold of it. The larva life probably lasts more than one season; the whitish, rather flabby grub when unearthed by the gardener is likely enough to be taken for the injurious grub of the common cockchafer.

Somewhat like the Dor beetles in habit are the smaller species we call the "Mimic" beetles, because on any slight alarm the individuals at once pretend to be dead, and as they lie prostrate on the ground they might be passed over as tiny black pebbles. They are not singular, however, in this habit, as many beetles feign death or insensibility, with some amount of artifice too. Thus the common Pill Beetle (*Byrrhus pilula*), is actually formed, as we might say, to be a mimic. The legs slide into grooves under the body, and hide away like the joints of a portable easel, while the head is hidden under the thorax. The body also being downy accumulates a little dust during the beetle's journeys hither and thither; so that altogether the resemblance of this insect to a small stone is very close, it cannot be asserted to be so much like a pill or bolus. Returning to the Histeridæ, familiarly called the "Mimics," it is to be particularly noticed that these beetles have such hard

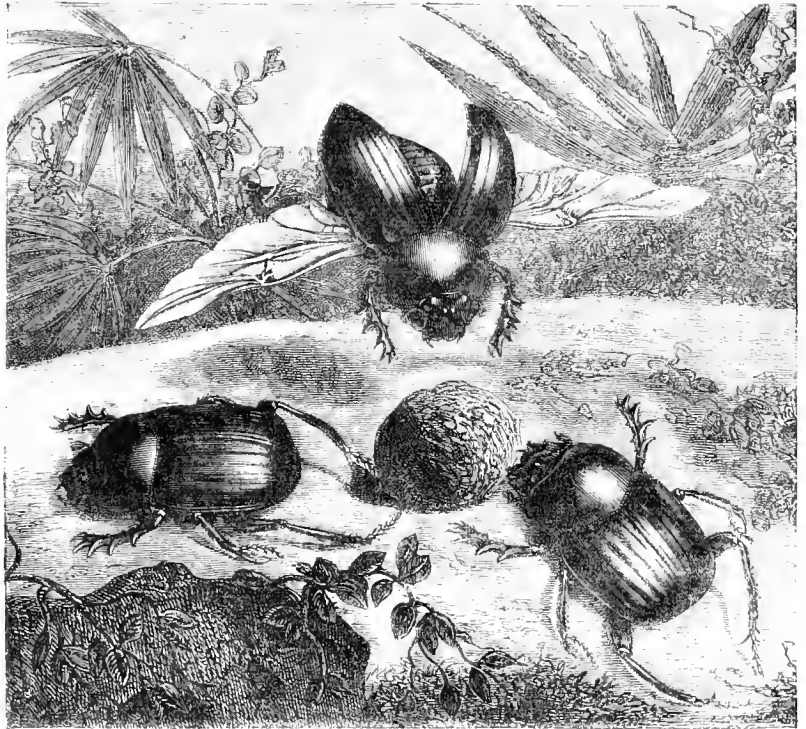


Fig. 167.—THE SACRED BEETLE (*Ateuchus sacer*).

wing-cases as to turn the point of an ordinary pin. Some are rather handsome, such as the Four-spot Mimic (*H. quadrimaculatus*), with steely-black elytra, a reddish marginal line, and a blotch of red on each elytron or wing-case. Though small in size, only a few lines in length mostly, the Histeridæ do service through their being numerous, and they not only resort to manure but help to dispose of small dead animals. They are provided with ample wings, of much service to creatures whose habits, like those of the vultures, require that they should be able to proceed rapidly from place to place. The larvæ of these beetles are slender, whitish, and wormlike, with six not very obvious legs. The tail in several of the species has a forked appendage.

There is a small beetle so little known to most people that it has got no English name, which deserves much encouragement if one knew how to give it. This is scientifically designated *Drilus flavescens*, and is related to the glow-worm. Though not rare it is hard to find, but on examining a male specimen we perceive it is not devoid of beauty, being marked with yellow, brown, and black; the antennæ are also most delicately fringed. The females are wingless, long-bodied, and have very small heads, yet armed with very sharp mandibles. This sex is much more difficult to detect than is the male *Drilus*, and it is really not improbable that, even by entomologists, it is passed over as a grub. The special business

of *Drilus flavescens* is the destruction of slugs and snails. According to Mr. Wood its favourite food is the familiar garden species called *Helix nemoralis*. Possibly the matured insects attack these molluscs, but it is to the larvæ we are chiefly indebted. These larvæ are flat, of a pale brown colour, and with two ridges down the back, composed of small protuberances, each tufted with hair, which probably serve to shield the larvæ from some parasitic enemies. They cannot need protection from the weather generally, as much of their life is passed within the shells of snails, and within these they always hide when changing their skins. One of the most curious features displayed by this larva is a tail feature, so to speak, somewhat resembling the telescopic process which adorns the larva of the glow-worm. In the *Drilus* it is more like a lobe, pretty strong and flexible; and what is remarkable, the larva is supposed to attack snails by backing into them, a proceeding certainly not agreeable to the molluscan creature, which having no defensive weapon can do nothing but eject slime, and this cannot annoy the tail of the *Drilus* larva, though it might be unpleasant to its head. Having forced its way into the shell the larva eats-up the proper tenant at its leisure. Unlike most of the larvæ of beetles, that of *D. flavescens* has a number of short legs, which help it to hold on firmly in its slimy abode.

Allied to the last is the group of beetles we call the Telephori, nearly all soft-bodied in the beetle condition, and yet connected by their structure with the hard-bodied "Skip-jacks" of the Elater division, amongst which we have the terrible pest the "Wireworm." The Telephori are better known, perhaps, to children than to the majority of adults, as it is a favourite amusement with juveniles to watch these on the flowers of the garden, the reddish-yellow species being saluted as "soldiers," and the bluish or black species with tawny legs hailed as "sailors." They may be considered as ornaments to the garden, rather more abundant usually in the kitchen than in the flower garden, and not at all injurious, that I am aware of, unless they may cause alarm to some of those fanciful individuals who cannot bear to touch an insect. These Telephori, of which we have more than twenty British species, are carnivorous in habit, though they may occasionally nibble the petals of flowers. From their partiality to the various plants of the Umbelliferous order, it may be surmised that they seize the small flies and weevils which crowd on the flower-buds of such species. Boys pit a "soldier" against a "sailor," and the two will often engage in a sharp combat; but it is nearly as easy to induce two of the same species to fight as two distant relatives, the "law of brotherhood" not being observed by them, and what is still worse, beetles of opposite sexes will quarrel. And yet the delicate appearance of the beetles and their somewhat tardy movements (for though they can fly well they seem reluctant to employ their wings), would make us fancy them quite of a pacific sort. The larvæ if unsightly do not obtrude themselves on notice, and most if not all are carnivorous like the perfect insect. Some of them feed on earthworms, and on small grubs of various kinds that are found just beneath the surface of the ground. Should we unearth one, we perceive that it is of moderately stout build, the sides of the body made strong by ridges, and the head adapted for digging as well as killing. These feed at intervals during the winter, and are active in April and May, when they are full-grown. The pupa state is brief in duration.—J. R. S. C.

NOTES FROM NICE.

WHILST we are receiving accounts of the very cold and snowy weather prevailing in England, Scotland, and many parts of France, we are here enjoying the warmth of a southern sun, and only see some of the snow on the mountains at a distance. The Maritime Alps are now well covered, and present a very fine appearance. There has been a little frost at night, soon dispersed by the rays of the sun. The flowers in the market and at the various magazines are still in considerable abundance. The Tea and other Roses very beautiful, with *Heliotropes*, *Jasmine*, *Tuberose*, *Violets*, *Abutilons*, and various sorts of *Hyacinths* and *Narcissi* now coming into bloom, all growing out of doors. Large *Primulas* in pots are sold at fifty centimes each, and large handsome bouquets with Orange blossom and *Mignonette* for a franc. Some of the principal plants now in blossom in the public and other gardens (open air) are *Eriobotrya japonica* (Japan Medlar), *Acacia tomentosa*, *Siphocampylus bicolor*, *Calycanthus præcox*, *Abutilon venustum* and *striatum*, *Justicia Adhatoda*, *Spar-*

mannia africana, *Hibiscus africanus*, *Raphiolepis indica* (beautiful), *Freylinia cestroidea*, *Habrothamnus elegans*; *Salvia involucrata*, *eriocalyx*, *splendens*, and many others too numerous to mention.

There is now in blossom at the Villa Zuylen, at the back of the Villa Bermond, in the Quarter St. Etienne, a splendidly large specimen of the (in England) rare plant *Bougainvillea spectabilis*, covering the front of the peasants' house with its beautiful pink bracts, or what would be more popularly called flowers. The real flower is contained within the terminal coloured bracts or leaves. This plant is well worthy of a visit; and there is also in front of the villa one of the most magnificent Date-bearing Palms in the neighbourhood, with several other rare plants in flower also (Dec. 22nd).—EDWARD COPLAND.

BAROMETER AND THERMOMETER TABLE AT NICE FOR THE WEEK ENDING 16TH DECEMBER, 1874.

Date.	Days.	Barometer at Noon.	Thermometer hung facing the North.				Sky at Noon.	
			9 A.M.	Noon.	6 P.M.	Maxi- mum.		Mini- mum.
Dec. 10	Thursday ..	29.4	49	56	48	58	44	Cloudy.
Dec. 11	Friday	29.6	46	51	45	52	49	Cloudy.
Dec. 12	Saturday ..	29.3	49	54	49	58	41	Fair.
Dec. 14	Monday	29.4	42	45	42	49	40	Cloudy.
Dec. 15	Tuesday	29.5	42	49	44	51	40	Cloudy.
Dec. 16	Wednesday ..	29.5	41	49	41	59	39	Fair.

MONT D'OR BUTTER BEAN.

IN reply to Mr. Bester's strictures, I may observe that tastes differ, and so do cooks. I maintain that the Bean is an excellent one, greatly superior to other kinds in the quality, but not in the quantity of its produce. For this important reason I strongly recommend it. The only objection that can fairly be advanced against it is on the score of colour, which is certainly "yellowish green;" but whether this is a blemish or not is a mere matter of opinion, and does not at all affect its real value. Will Mr. Bester allow me to suggest another trial and a pair of green spectacles? then, if he is sure of his cook, I venture to hope that he will allow at least some merit in that which he now so sweepingly condemns.—EDWARD LUCKHURST.

PORTRAITS OF PLANTS, FLOWERS, AND FRUITS.

RHEUM OFFICINALE. Nat. ord., Polygonaceæ. Linn., Enneandria Trigynia.—"According to the evidence hitherto obtained, this grand plant (which is certainly the handsomest of all the Rheums, except the Himalayan *R. nobile*), is that which produces much if not all the Turkey Rhubarb of the pharmacopæia. It is a native of and also cultivated in eastern and south-eastern Tibet, and was sent thence by the French missionaries to M. Dabry, the French Consul at Hankow. M. Dabry sent plants to M. Soubeiran, Secretary of the Jardin d'Acclimatation of Paris, where they flowered at Montmorency in 1871.

"An excellent history of this plant is given in Flückiger and Hanbury's 'Pharmacographia,' quoted above, from which it appears not to be certain that the true Turkey Rhubarb of commerce is derived exclusively from this plant, though the evidence of the missionaries who discovered it, that it is the main source of that drug, is supported by the fact that there is no important discrepancy between this *R. officinale* and the imperfect and scanty accounts and figures of the Chinese authors and early French missionaries. From the same work we learn that the drug was known to the Chinese long anterior to the Christian era, and was described in a work dedicated to the Emperor Shen-nung, the father of Chinese agriculture and medicine, who lived about 2700 B.C. Also that Marco Polo is the only traveller who has visited the districts yielding Rhubarb, in the mountains of one of which (Tangut) he describes it as growing in great abundance; this, however, is an error, for an account of it will be found in the travels of Bell of Antermomy (vol. i. p. 384-387), who found it in Mongolia, growing abundantly near marmot burrows. One of its most remarkable characteristics is its stout very distinct stem, which, and not the root, is considered to be the source of the Rhubarb in the view of M. Baillon, and no doubt correctly."—(*Bot. Mag.*, t. 6135.)

EPISCIA FULGIDA. Nat. ord., Gesneriaceæ. Linn., Didy-

namia *Gymnospermia*.—It is a native of New Grenada. Flowers scarlet. Leaves variegated.—(*Ibid.*, t. 6136.)

BOCCEROSTA MAROCCANA. *Nat. ord.*, *Asclepiadaceæ*. *Linn.*, *Peotandria Digynia*.—Native of Morocco. Flowers purple.—(*Ibid.* t. 6137.)

ONCIDIUM ZEBRINUM. *Nat. ord.*, *Orchidaceæ*. *Linn.*, *Gynandria Monandria*.—"A very attractive plant from the pure white of the perianth, with its red purple bars, and the fine gamboge yellow of the bars of the lip; at least such are the attractions of the variety figured here. But Reichenbach describes a form in which the whole disk of the sepals is violet, and with only one violet spot at the base of each petal. In the length of the panicle it exceeds all other species I have seen growing; in the specimen here figured it was 12 feet long.

"*Oncidium zebrium* has been sent home, living or dried, by various collectors, and was first flowered, according to Professor Reichenbach, by Mr. Bull in 1872."—(*Ibid.* t. 6138.)

FUCHSIA PROCUMBENS. *Nat. ord.*, *Onagraceæ*. *Linn.*, *Oetan-dria Monogynia*.—Flowers yellow and purple. "This curious little plant, so unlike a *Fuchsia*, in habit and colour of the flower, was discovered in 1834 by Richard Cunningham in the northern island of New Zealand, on the shores of the east coast, opposite the Cavalhos Islands, growing on the sandy beach, where it has since been gathered by Colenso. It has also been found on the Great Barrier Islands by Mr. Kirk, in two localities, both near the sea."—(*Ibid.*, t. 6139.)

PLUM.—*Prince Englebert*.—"It is now extensively grown around London for market purposes, and is one of the best sorts where annual and remunerative crops are a consideration. Its bearing qualities are something remarkable, and its quality by no means to be despised, even for dessert, while in the culinary department it has very few superiors. Dr. Hogg describes it as having 'Fruit very large, oval, and marked with a shallow suture. Skin of a uniform deep purple, covered with minute russet dots, the whole thickly covered with a pale grey bloom. Stalk half an inch long, inserted in a rather deep cavity. Flesh yellow, rather firm, sweet, juicy, with a brisk and rich flavour, and adhering to the stone. Shoots smooth.' To this he adds the remark, which we can fully endorse, that it is 'an excellent Plum, either for the dessert or for culinary purposes, and delicious when preserved. Ripe in September. The tree is a great bearer, and in this respect is one of the most valuable for large culture.'—(*Florist and Pomologist*, 3 s., vii., 277.)

SOME OF THE VEGETABLE PRODUCTS OF CEYLON.—No. 5.

MANILLA HEMP, and *China Grass* or *Nettle* (the latter being employed in the manufacture of clothing material), are being cultivated in the Royal Botanical Gardens, and plants are being applied for by persons desirous of extending their cultivation in Ceylon.

SILK.—The present Governor has addressed the Secretary of State in reference to the production of silk in Ceylon. His Excellency is of opinion that with due care and attention silk might be produced in Ceylon in any quantity. The Mulberry tree grows luxuriantly in the island, and the worms are both hardy and appear to thrive well. Careful manipulation by patient and experienced persons is at present wanting, and until such be forthcoming the silk grown in the island must be sent in the dried cocoons to Europe to be spun, and this latter procedure is followed from various parts of the East. Japanese or Chinese settlers in Ceylon would overcome all such difficulty, and the production of silk may ere long be added to the exports from Ceylon.

GINGER, *PEPPER*, *CLOVES*, *ARROWROOT*, and *TAPIOCA* are cultivated, but only Arrowroot and Pepper are exported, and that in but trifling quantities. The great rise in the price of Cloves, and the immunity from hurricanes which Ceylon possesses, render the question of their extended cultivation in the island well worthy the consideration of its inhabitants. The hurricane that swept over Zanzibar in 1872 is reported to have laid waste and swept away entire crops of Cloves. There is a movement, Dr. Thwaites mentions, among European planters as well as Cingalese, to take up seriously the cultivation of Cardamoms, and he is preparing by adding to the Botanical Gardens own plantings to meet the increased demand.

COCOA.—It is stated in a late number of the *Agricultural Economist* that the culture of Cocoa is likely to have a future for commercial purposes in Ceylon. It seems that, like To-

bacco manufacture, the great art has laid more in the curing than the growing, and that this involves a sweating and fermenting operation termed "terrage." That brings out the full flavour of the nut. The samples that have been lately received in England from the Ceylon Botanic Gardens are considered good, only more attention will have to be paid to its preparation after being removed from the tree.

EDIBLE FUNGI.—These are found in Ceylon, and a volume of drawings of the same were laid before the Woolhope Club at the great Fungus festival held at Hereford in October last.

THE PLANTAIN.—There are seventeen kinds of this excellent fruit found in Ceylon. The Soewendel, the Hokekoolto, the Kadely, and some others are sweet and luscious. The Alookehel is given to invalids to provoke appetite. The Kamerooroo makes a good curry. The Etikehel is not cultivated, but grows wild in the hilly jungles. It is said to possess medicinal virtues, and is prescribed by native doctors.

It would, I think, be well if some enterprising person in Ceylon would send to England in some quantity, a consignment of dried Plantains, and when it is considered that some 30,000 cwt. of dried Figs are annually imported into England, the speculation would, I am inclined to think, be a successful one in a pecuniary point of view. The taste for the dried Plantain, if properly prepared, would be soon acquired in England, and doubtless lead to a brisk demand. The following is the mode of drying the Plantain followed in Mexico, as stated by Capt. Colquhoun of the Royal Artillery:—

The fruit is gathered when fully ripe, and is laid on light cane frames exposed to the sun. When it begins to shrivel the outer skin is stripped off, and then the drying is completed. During this process it becomes covered with a white mealy efflorescence of the sugar, as the Fig does under similar circumstances. For convenience of transport it is pressed into masses of about 75 lbs. each, and is wrapped in plantation leaves. It is evident that the fruit in this state bears precisely the same relation to the fresh Plantain that the raisin and dried Fig do to the fruits from which they are prepared, and may be expected to keep good as long as either of them. Indeed, samples have been sent to England from Mexico which had been prepared for two years, and they continued to be sufficiently moist and of a consistence and flavour between the Date and the Fig, without acidity, and indeed sweet.

As the "Food Journal," I am aware, finds its way to Ceylon, the above information may be of use, and it is to be hoped we may yet see importation on a large scale of the dried Plantains into England. If Chinese obtain a footing in the land of Cinnamon and pearls this will doubtless be the case.

ORANGES, *PINES*, and *OTHER TROPICAL FRUITS* are most prolific. The Vine yields largely in portions of the northern and north-western provinces. It formerly was cultivated at Kandy, in the central province, but at present it ripens there but rarely, and there is a theory that this is occasioned by the change of climate consequent upon the cutting-down of the large trees in and about Kandy, trees which both sheltered the Vine and occasioned a sort of artificial winter.

The Dutch Admiral Spelberg, who was in Ceylon in 1602, mentions (in his narrative of his voyage to India), and highly praises the wine made from Grapes grown at Kandy. Much discussion has taken place on the alleged injurious effects on climate and soil by the destruction of forest trees. An able planter of long residence in Ceylon, in the course of a valuable paper he placed at my disposal when I was holding the post of government agent in the central province, laid it down as his opinion, that although the forests of Ceylon, India, and Abyssinia were rooted from the ground, the great circulation of moisture would go on the same, and the land thus bared would soon reclothe itself, the vegetation being the resulting effect of the rain and not its cause."

Humboldt was, however, of opinion, that by the great evaporation from leaves an amount of moisture is diffused through the atmosphere, which, wafted by winds, waters wide districts of country. Moreover, woods shelter the ground beneath, and materially retard the evaporation of the water that falls as rain. Consequently, springs are kept flowing, rivers do not dry-up, and the lowland cultivators can always depend on the distant hills for the means of irrigating their crops. I officially drew the attention of the Ceylon Government some years ago to the desirableness of reserving belts of forest land growing round the source of streams, and adverted to the precautions that were taken by the Mauritius Govern-

ment on the subject.* What differences of opinion may exist as to the effect produced on climate and the supply of water by the destruction of timber, all must agree as to the impolicy of permitting the indiscriminate destruction of valuable forests. There are, of course, instances where the progress of civilisation renders the destruction of forests necessary; but there are also cases where such should be preserved, and which, if ably supervised, would afford unfailing supplies of valuable timber. I may add, that there are some ninety-six species of timber trees found in Ceylon.—E. RAWDON POWER, F.R.G.S., *Ceylon Civil Service (Retired), Tenby, South Wales.*

NOTES ON VILLA AND SUBURBAN GARDENING.

WITH a sharp frost every night, and the ground still covered with snow, induces one's attention to be turned to things under cover, and one of the first things that suggests itself to those with time on their hands is the fruits and vegetables in store. Amateurs are many times not so well supplied with storeroom as the professional man, and therefore the produce is often by compulsion thrown into a heap, and through that the necessity of frequently looking over them is the more apparent, because they are much more liable to decay from heating or sweating; and Potatoes, for instance, when laid in a heap often, to look at the outside, appear to be keeping well from disease as well as sprouting, but pull the heap to pieces, and it may be that some of them are rotting and others making shoots, to the great injury of the tubers, whether for eating or for seed; hence my reason for saying that this is a very proper time to go through everything of the vegetable kind, as well as that of the fruit; and even if no decay or sprouting is found, the fact that they are moved out of one position into another, so long as that be done properly and carefully, is much to the good of all, and if they could by any means be spread out upon the floor for a few hours the benefit they receive will be greater still.

Salading of Sorts.—There is such a demand for salads at all times of the year, even in the smallest of families, that the work of raising them may be safely alluded to here, especially now that Lettuces and one or two other of the principal things required to make up a salad are short or wanting altogether. In my case it is necessary that a small salad should be supplied every day, and just now, besides Celery, it is made up of late Endive which was stored away in cold frames, and though kept as dry as possible, it has just been examined on account of some of it rotting, and some Corn Salad, which was planted thickly in boxes and put into a very mild heat, and Mustard and Cress, and last, but not least, some forced Chicory. When Endive is over more of the other things will be required, and consequently any addition in the way of Radishes; these are sown among the Early Horn Carrots in a frame, with a bed of mild-heating leaves under them. The sorts sown are the French Breakfast and Wood's Early Frame. The Carrots are sown in rows, and the Radishes also in rows, alternately one with the other. The Mustard and Cress is sown in shallow boxes, and with the seeds not covered, but pressed into the soil, watered, and placed over the boiler in the stovehole. After they have vegetated they are brought into the vinery at work, or in the absence of that the greenhouse will answer well. It may be mentioned that these things may be sown and reared in several different places where there is heat sufficient (and very little is needed) to cause the seeds to vegetate. I have been so far particular over what appears to many a very simple thing, but I may say that it is not at all times an easy matter for an amateur to get a supply of this part of a salad, and if he can be helped out of his difficulty by letting him know of an easy common method he will be the more likely to once more try to enjoy some from his own growing. Then as to Chicory. At this time of the year it is indispensable in a salad, and I believe very wholesome. The roots are grown from seed sown in May on rich ground, and in a similar manner to Carrots, and the rows the same distance apart; they are thinned out in due time, and kept growing as fast as possible during the season. The roots may be taken up in November, and the tops cut off and stored away the same as Carrots. When required for forcing, some of the roots are planted in a frame with a gentle heat where the light is kept from them. In a short time they commence to

grow at the crown, which produces tender and fleshy leaves perfectly blanched, of a yellow colour, and a most excellent addition it is to a salad. Now, Chicory is a very easy thing to force, and may be done in several ways. For instance, if the roots are planted in some sandy soil in a cellar, or planted in pots thickly and covered with another one to keep them dark, a good result may be expected. It is very easily started into growth, and does not require the attention that many things do to bring them to perfection, and which an amateur can generally ill afford to give it.—THOMAS RECORD.

DOINGS OF THE LAST AND PRESENT WEEKS.

THE weather is still such that no work can be done in the kitchen garden different from that of last week. One thing we were enabled to do, and that was to write out the seed order. Some few sorts of vegetables we save seeds of ourselves, but we long ago discovered that it does not pay to make a general practice of this. We do not, therefore, feel inclined to take the trade out of the hands of the seedsmen. They have considerable advantages over gardeners, as they can have the different classes of seeds saved in the districts and soils best adapted to them. Indeed, some of our best vegetable and flower seeds require to be saved in France or other warmer countries of the south of Europe; and even if a gardener does prefer to save a certain favourite vegetable for seeding purposes, it is frequently desirable to change it to another district to prevent degeneration.

There are a few of the new vegetables being sent out this season which certainly deserve a trial, but it is best to stick to our old friends, which have proved constant to us whether the seasons be wet or dry, cold or hot. To begin with *Potatoes*, one or two of the new American sorts deserve a fair trial. They are distinct from any of the English-raised varieties, and are enormous croppers in some soils and favourable seasons. The flavour is fairly good, but at their very best not equal in this respect to the best of our own kidney and round varieties. Snowflake is one of the best white sorts, and Vermont or Brownell's Beauty the best of the reds. The varieties of Potatoes are very numerous now. Some persons grow over a hundred distinct sorts; but, of course, this is a mere whim or fancy, as for all useful purposes half a dozen are sufficient. We grow in the garden Myatt's Prolific Ashleaf and Veitch's Improved Early Ashleaf; and for a round sort, though that has been given up for the last year or two, the Early Coldstream. The best field sorts are Dalmahoy, an early Regent, Walker's Regent; and for late, the Red-skinned Flourball.

Amongst the new *Peas* Dr. Hogg will probably hold the first place; it is the earliest wrinkled Marrow, and a good cropper. William I, Alpha, Champion of England, G. F. Wilson, and Veitch's Perfection are the favourites. The Seville Long-pod *Bean* is a very distinct and desirable sort; it is not quite new, but is not grown to a large extent in England. We grow but one sort, and that is the Broad Windsor. *Dwarf Kidney Bean*, Newington Wonder, and Negro Long-pod *Scarlet Runners*. *Beet*, Dell's Crimson. *Broccoli*, Snow's Winter White, Walcheren, Knight's Protecting, and Perkins' Leamington; the last is a fine new variety. *Brussels Sprouts* (imported seed) and Scrymger's Giant. *Cabbage*, Early Dwarf, York, and Enfield Market. *Carrot*, French Forcing, James's Intermediate Scarlet, and Red Surrey. *Cauliflower*, Early London and Lenormand's. *Celery*, Williams's Matchless Red and Sandringham Dwarf White. *Cucumber*, Tender and True, Telegraph. *Endive*, Batavian (Fraser's Improved), Green Curled. *Lettuce*, Cabbage, Drumhead, Hicks' Hardy White Cos. *Melon*, Scarlet Gem and Gilbert's Victory of Bath. *Onion*, Brown Globe, James's Keeping, and White Spanish; also Two-bladed for pickling. *Parasnip*, Hollow-crowned Improved. *Radish*, Red Turnip and French Breakfast. *Savoy*, Drumhead and Dwarf Green-curved. *Spinach*, Round or Summer, Prickly or Winter. *Tomato*, Orangefield Dwarf. *Turnip*, Early White Stone and Veitch's Red Globe. *Vegetable Marrow*, Short-jointed Long White. The above selection of vegetable seeds have been proved to be the best for our district, and our soil is very unsuitable for vegetable culture.

Covered Rhubarb with some rough manure from the farmyard; this protects the crowns from frost and causes the leaves to start into earlier growth.

GREENHOUSE AND CONSERVATORY.

During severe frosts there is much danger to be apprehended from the hot-water pipes, and much more so in structures heated by the old-fashioned flues. During the winter season, when the heating apparatus is not in use, the plants may not require any water for a whole week. We look over our plants about twice a week, but not more than half of them will require water; but suddenly a severe frost sets in, the fires are lighted up, and should any plants be near the pipes they become dry and are sometimes neglected. During a frost it is necessary to look over the plants every day. Careful watering, especially in the winter season, is an indispensable agent to successful culture. Much of our time is still employed cleaning the wood and glasswork of the houses, and also the plants.

* I find some years ago that I also addressed a letter to the Government of Ceylon, of which the following is an extract: "The subject of timber in the central province, and indeed throughout the island, is becoming so very important, that I think the appointment of a separate officer as Inspector of Crown Forests, &c., is well worthy of His Excellency's consideration as both an economical and very desirable measure. With an active and efficient officer in such a post—and I may add that in every large district in British India such an officer is to be found—we might hope also to encourage the planting of valuable young trees in favourable localities, and thereby remedy in course of time the evil involved in the reckless destruction of valuable timber which has taken place for many years past in this colony." I have reason to believe that the Ceylon Government have taken action on this important subject.

One of the most useful flowering plants at the present time is the *Cineraria*. Green fly is very fond of feeding on the juices of the leaves, and thrips does not disdain to attack it. The best way to get rid of either is by fumigating the house. We started to grow a named collection of them, and for exhibition purposes it is quite necessary that the very best sorts should be cultivated. Those who grow to decorate the greenhouse and conservatory, or to furnish a few cut flowers, will go in for seedlings. For early flowering it is best to sow the seeds about the first week in May; and it may not be amiss to remark here, that as far as regards dates our friends in the north would do well to be two weeks at least earlier than us; the system of culture ought also to be slightly different. The sun is not so powerful away north. We have grown *Cinerarias* splendidly in frames facing south when in Scotland. In the neighbourhood of London this will not do; the back of the frame must be turned south. Even under this treatment a little shade is desirable. Loam and leaf mould in equal proportions is the best compost in which to sow the seeds, just covering them over with the finer portion of it. When the seedling plants are large enough to handle they ought to be pricked out singly in small pots, using the same compost; in a few weeks the plants will require to be repotted, using this time two-thirds turfy loam, one-third leaf mould, and a little rotted manure in addition, with silver sand if that is necessary. The most useful sizes of pots to flower them in are 5, 6, and 8-inch inside diameter, they are called with us 48's, 32's, and 24's. No sticks are necessary to support the flowers, but all through the growing season keep the plants as close to the glass as possible, allow them abundance of light and air, but shade from scorching sun. *Calceolarias* succeed them in flowering, and are also valuable. The same treatment is necessary, but the seedlings are more tender, and the seeds should be but slightly covered with fine sand; it is also quite necessary to support the flower stalks with neat sticks.

Picking the withered leaves from *Azaleas*, and training some of them that had not been done previously. The main collection of *Azaleas* is now at rest, and the house is kept as cool as possible. We do not observe any traces of thrips now, but a few were observed on the plants in the summer; it will therefore be best to give a thorough fumigating with tobacco smoke before any plants are taken into the conservatory from the forcing houses. The tender growths that have been nurtured in a high temperature will not stand as much smoke as will kill thrips. Before watering an *Azalea* plant, or indeed any New Holland specimens, they ought to be dry, and yet overdryness is as great an evil as too much water. An experienced cultivator can tell by striking the pot with his knuckles: at any rate, the pots must be watered before the soil is dust-dry, and give enough to thoroughly soak the ball of roots. If the water rushes through the holes in the bottom of the pot suddenly and in quantity, it is probably because the mould has shrunk from the sides through becoming too dry. If this is the case a rammer should be used to press the ball firmly into the pot again, and it may even be necessary to soak it in a tank or tub of water.

We do not force large quantities of flowers for the greenhouse, but have placed some pots of *Roses* in the early vineries, and have introduced a few *Hyacinths* and other Dutch roots into heat. Those who require quantities must now introduce *Spiraea japonica*, *Lily of the Valley*, *Hyacinths*, *Tulips*, *Polyanthus Narcissus*, *Dentzia gracilis*, and *Dielytra spectabilis*. The heat must not be more than 45° or 50° at first.

FORCING HOUSES.

The early vinery is starting strongly, and we have discontinued syringing. The only time we use the syringe on our Vines is when the house is first started, and this is done with a view to cause the buds to break evenly and strongly. When this has been accomplished the syringe does more harm than good, especially at midwinter; in April and May it would be different. Strawberry plants in pots that are starting have been removed from a house where they have 50° at night to one of from 55° to 60°, a fresh batch having been removed into the place of them. We do not allow any of the plants to suffer for want of water at the roots.—J. DOUGLAS.

TRADE CATALOGUES RECEIVED.

Carter's Seed Order for 1875.—High Holborn, London.
Vick's Floral Guide for 1875.—Rochester, New York, U.S.
Seed List.—Otto Putz, Great Russell Street, Bloomsbury.

TO CORRESPONDENTS.

* All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

BOOK ON BEDDING (A Constant Reader).—Our book on "Garden Plans and Borders" is now preparing for a new edition. It will treat fully on bedding.

TETRATHECA VERTICILLATA (I. L. H.).—This is the same as *Tremandra verticillata*.

PRIMULA SINENSIS GRUB-EATEN (Gardener W. H. P.).—The grub eating your *Primulas* just below the soil's surface is the larva of the Daddy-long-legs, *Tipula clarea*, and the grub is called the Leather-jacket. This plague occurs frequently.

TILLANDSIA LINDENI.—"If your correspondent, 'W. C.' will turn to 'Floral Magazine,' plate 44, new series, he will there see a figure of *Tillandsia Lindenii* with two flower spikes, both lateral. This plant was exhibited at the Royal Horticultural Society in 1872 by Messrs. Vetch & Sons, and obtained a first-class certificate.—W. G. S."

EARLY PRODUCE (C. W.).—If you put your questions so that they can be understood we will be pleased to answer them. First, what do you propose to grow in the long span-roofed house? You would get the best return from Grapes ripe in May and June in the earliest house, and late Grapes, Alicante and Lady Downe's in January, February, and March. In the early house you would require six rows of 4-inch pipe, and a lean-to or half-span would be better than the span-roof. Four rows of piping would be sufficient in the late house. Bottom heat is unnecessary. The market is not likely to be overstocked with good Grapes. Write again if we have misunderstood you.

LOBELIAS TO BLOOM THROUGH SUMMER (R. A. P.).—Plants from seed would be most enduring in your light soil, and to maintain them in good condition the ground should be liberally dressed with rotten manure, and copious waterings given in dry weather. There is no better kind than *Lobelia speciosa*, taking care to have seed of a good strain; and a white variety, a companion for it, is *White Perfection*. *L. pumila grandiflora* requires good rich soil, and is only suitable for carpet-bedding. The seed should be sown about the middle of March in a hotbed, and the plants when large enough to handle pricked-out about an inch apart, growing-on in gentle heat, and hardening well off before planting-out. It is not necessary to sow for a succession.

FERN INFESTED WITH INSECTS (J. H. S.).—We cannot find any small scale nor traces of any, but there are abundant evidences of thrips having been actively at work upon the frond, the remedy for which is to fumigate with tobacco, taking care not to apply it too powerfully, or there will be a danger of some kinds of Ferns being injured—as the tender growths of *Adiantums*.

PIPING REQUIRED TO HEAT A HOUSE (Rus.).—Your house will contain 2244 cubic feet of air, and to heat this to 60° in all weathers you will need (the mean temperature of the external air being taken at 32°), 232 feet of heated surface or that extent of 4-inch piping, the temperature of the pipes being 160° to 180°; but if you do not wish to have more piping than is absolutely required, you may employ 176 feet of 4-inch pipes. By the former you will have four rows of pipes all round the house, and by the other four rows along two sides and one end.

PLANTING ESPALIER APPLES AND WALL PEARS (H. W.).—The Apples should be 24 feet apart, as the espalier rails are only 4½ feet high. The Pear trees on the 9½-foot wall ought not to be nearer to each other than 24 feet.

RAIN GAUGE (G. S. X.).—Trye's "Companion to the Weather Glass," price 1s. Published by Bemoze, London and Derby.

NAMES OF PLANTS (W. Lomas).—The flowers are *Chrysanthemums*. We cannot name florist's varieties.

POULTRY, BEE, AND PIGEON CHRONICLE.

BANTAMS PAST AND PRESENT.—No. 1.

Why it is that we, as a rule, prefer the dwarf to the giant I know not. I only know that it is so. Some few years since there arrived in England about the same time the Chinese giant "Chang," and a gigantic Frenchman, name forgotten. The Chinese, because of his dress and because a dwarf accompanied him, did very well; the poor tall Frenchman being alone remained alone, none crowded to see him. Captain Batea, of huge stature, had the two-headed Nightingale beside him, and many more cared to see the poor dwarfish girls than the huge American. But to no giant, however accompanied, rushed such numbers as crushed and crowded-in to see the four little dwarfs, General and Mrs. Tom Thumb, Commodore Nutt, and Miss Minnie Warren. They made their fortunes, and pretty fast too. More than that, how they were "darlinged" and "deared" by ladies of all ages! Why all this I know not, but it is so.

This rule of preferring small to large holds good in regard to pets; indeed, petland is a kind of fairy land whose inhabitants must be small. Thus among dogs, the pug, not the mastiff, is the pet; the Maltese not the Newfoundland. Go among the Pigeons at a show, the ladies crowd around the Jacobins not the Runts. And when the ducks (the big-chignoned I mean), go among their namesakes, it is the little Black East Indians that they admire, not the big Rouens. And as to the poultry, who ever saw a lady look at a tall Malay save with a shudder? No, she soon walked away from that gawky giant and went to the—Bantams.

Now, if thirty-five years ago or so a child had said to another, "Come and see my Bantams," they would in all probability

have been Nankin Bantams, the common Bantams of that period, and not unfrequently called "Yellow Bantams." The old-fashioned speckled Booted Bantam were already old-fashioned and scarce, and belonged to a prior age. Then, too, if a lady or gentleman of taste in poultry, for there was always a taste for and in poultry, limited very much to Game among men, and Bantams among ladies—if, I repeat, such a one had said to a friend, "I have just got some very pretty Bantams sent me," they would in all probability have been Sebrights. White and Black there also were, more, I believe, of the former than of the latter.

Next let me contrast the Nankin Bantam of that day and this. The cock was an upright bird, standing-up as high as he could reach, not in the attitude of the Black Bantam cock of the present day. He reached-up a good way; and mark you, Bantams were not so small as a rule then as now. The Nankin Bantam cock of the past was, as to colour, red and black. But to take him in detail. Comb, in the best, very double, but there were single ones as well; eye fiery; wattle and face very red; hackle red and full; breast black, ditto legs and thighs; wing bow red, rest of the wing black and very lustrous; saddle red; tail black and shiny with sickles splendidly developed; the flight not tucked-up like the Game Bantams, but pointing downwards; legs blue or dark and without a single feather. Such was the Nankin Bantam cock of the past. Next, the hens that were found with this bird. They were nankin, or lankeen in colour. This was not the colour of the Cochins of the present day, it was not nearly so rich a colour. Nankeen was a sort of cloth imported from China, made of a yellowish cotton. That was nankeen, and that was its colour. Boys of the era wore and were delighted to wear in summer nankin trousers. A good many now middle-aged men and oldish men, have in their boyhood danced about in nankin breeches. The fashion has long since passed away, and as nankin trousers and petticoats have passed away, so has the material I believe; but worst of all, the true Nankin Bantam is gone too. However, this is forestalling the subject. The Nankin hens were exactly of that colour, not buff, not cinnamon, but nankin, a light pretty hue, sometimes mottled; the hackle of the hens streaked with black, and the tail also black at the end, the legs blue, the form neat. Such were the Nankin or Nankeen Bantams—very pretty, very interesting, an advance upon the Booted, which were the taste or fancy of the eighteenth century. I can see them distinctly in my mind's eye, for I kept many. I had my favourites, the rose-combed among the cocks, and the clearer-plumaged among the hens, and I aver that they were a distinct and true-breeding, aye, and useful little fowl.

Such were Nankin Bantams of the past. They laid a rich-coloured egg, not over-small, and they laid well and sat well. They and the Sebrights were the taste of the day, and many a farmers' wife or keeper of large fowls yet liked to have a few "Bantys" in the yard as well for pets, or very likely for the amusement of a child who was pleased to find and bring in the little eggs.

Now for the Nankin Bantams of the present day. As to the cock he seems to have departed altogether, for the bird now shown as a Nankin Bantam cock is in colour not unlike a Buff Cochin cock, and nothing like the bird of a former day. I believe the true bird went to make, or rather help to make, the Game Bantam cock; he and the true Game bred together produced dwarf Game fowl. But gone he is, like an old man, last survivor of a firm; he is taken into a new firm, and his identity and his individuality are no more seen or known. Fashionable once, he is fashionable no more. Pity 'tis, but true.

Next as to the Nankin Bantam hens of the present day, they are all wrong too, being, as far as I have seen them at shows, buff—Cochin-buff-coloured, and not the least like the hens of thirty years since.

At provincial shows I have seen a pair or so of these Bantams. At the Palace Show there was a class given, but the result so bad that the first prize was withheld. I believe the original Nankin hen went, like her mate, to help to manufacture the Game dwarfs. The nearest approach I have seen of late years to a proper Nankin hen was thrown from an inferior strain of Duckwing Game Bantams, one of their chickens being a very fair Nankin. Possibly in some outlandish part, some untravelled byway in Cornwall, or in Cumberland, or in East Anglia, they may exist; I hope they do, and I wish they could be shown, though I fear the Game Bantams have obliterated them. I would rather the two varieties existed, for there was room for them, and the cock and hen breeding diverse colours truly and regularly marked them out as a special and genuine variety.—WILTSHIRE RECTOR.

BRISTOL POULTRY AND PIGEON SHOW.—Mr. Cambridge's efforts to resuscitate the Bristol Show have been remarkably successful so far. The entries amount to 1117 pens of poultry and 632 of Pigeons, making a total of 2049 pens; and as, at this late season of the year, exhibitors have found which birds are good enough

to win and which are not, we may expect only the very cream of our poultry-yards to be there.

THE EXHIBITION DORKING.—No. 4.

BY T. C. BURNELL.

HAVING built a house and bought birds, the next question will be what to feed them on, and it will be as well here to go through all the different foods, giving the merits and demerits of each.

BARLEY is commonly thought to be the only food that fowls can possibly require, and many wretched birds are shut up in a small yard with nothing but a scanty allowance of this grain, and, to their owner's astonishment, do not pay. Fowls may be truly said to be omnivorous; they will eat and enjoy green food, grain, seeds, insects, worms, and a thousand things we wet not of. They also require access to a heap of lime rubbish, which is to them what salt is to us, besides helping to form the egg shells; and in addition to this they must have a supply of small stones to grind it all up with, gravel in the gizzard performing the same office for them that teeth do for us.

It will be at once seen, that however good barley is, it is insufficient by itself to keep birds in good health, and it almost amounts to cruelty to try to do so. For an occasional food it is well enough, but in my opinion is not equal to WHEAT.

The best wheat is at the present time selling at about 5s. 6d. a bushel, and at this low price is by far the cheapest and best food we can use. I do not approve of tail or offal wheat, as I am sure with all grain the refuse, though low-priced, is by far the dearest in the end. It is very well for a farmer to use such stuff, for it costs him nothing, but to buy such rubbish is a great mistake, more especially in barley, the lightest of which is all husk, and has no kernel. Good wheat, then, is my idea of a food, and one of which the fowls are particularly fond. They lay and do well upon it, and I think no one can err in giving their fowls one feed a day of it.

PEAS and BEANS are not generally used for fowls, but I can strongly recommend them. White peas are the best, and the beans should be cracked in a kibbling machine. They both form a capital occasional food for laying stock, and will bring the birds into splendid feather. They must not be given in excess, nor to chickens which are intended for the table, as they will make the flesh very hard and tough; but as old cocks and hens are generally pretty much this way already, no harm can be done then.

MAIZE, or Indian Corn as it is called in England, is a large yellow grain of which fowls are particularly fond. There are two sorts—large and small, the latter the most expensive. Maize is at the present time rather dear, and I do not recommend it except for an occasional change once a week, and then not to the white-feathered birds, or it will most certainly turn their plumage yellow. Some people may laugh at this idea, but such have only to see what cayenne pepper will do for Canaries to be at once convinced. Maize is fattening, but is not a good egg or flesh former, so is one of the worst foods for growing or laying stock; but it claims one merit—the sparrows cannot possibly swallow it, nor can it be trodden into the mud, and for this latter reason I generally have it used in wet and dirty weather.

OATS will be relished for a change, but they must be sound and heavy or the fowls will not eat them. White oats are preferred, and they should not weigh less than 39 lbs. to the bushel.

RICE I never use, and though apparently cheap, it will be found very dear in the end, as there is no "heart" in it.

BUCKWHEAT, a small dark grain very much like hempseed, is strongly recommended by some, but I could never get my birds to eat it: I have tried it several times, both for old birds and chickens, but it has always ended in waste. I daresay the fowls would eat it if seen, but none are so blind as those that won't see, and my birds seem determined not to see it even when laid on a white plate. A very little hempseed is not a bad thing in the early part of the year to start the hens laying, but if given in excess it is too forcing, and will cause them to lay eggs without shells. If given in the moulting season it is said to cause the new feathers to come of a darker colour, but as to this I cannot speak from experience, for I don't use above a quart of it in a whole year.

Grain ground up into MEAL and slaked with water—soft food as it is called—should be given to exhibition birds at least once a day, as, though a little troublesome to manage, it will be very advantageous to the fowls. In cold weather it should be mixed with warm water into a crumbly mass, and if given warm on a winter's morning will greatly promote laying. I always use a zinc bucket and an iron spoon to mix it, first pouring in a little water, and then the meal; if properly prepared it should not be sticky.

GROUND OATS is generally considered to be the best staple food, and my own birds have one feed a day of it all the year round. It must be borne in mind that ground oats are not the same as oatmeal, but the whole grain ground up, husk and all; it is very difficult to obtain good, and I send nearly fifty miles for it, but

am convinced that this extra expense is not money thrown away. When good it looks rather like coarse flour, and mixed with water should not show much husk.

BARLEYMEAL by itself is too sticky, and clams to the birds' bills, but if mixed with fine bran (sharps as it is called) it will answer very well; I sometimes mix it with ground oats, but fine bran will do equally well, and is much cheaper.

It will be seen from the above list that there is plenty of choice, and the oftener the diet is varied the better will the birds prosper; but it must be borne in mind that Dorkings fatten more readily than any other breed, and if we wish to keep them in good health they must not be overfed. In winter they may have almost as much as they will eat, but in summer they should be kept very short, especially if they have a grass run.

SOME GREEN FOOD is absolutely necessary; if not to be obtained in their yards they should have some given them daily—a mangel wrzzel is the best thing I know of, especially as the roots are very cheap, and will keep all through the winter. They should be chopped in half, the fowls will very soon eat the heart out of them.

My own Dorkings are fed twice a day—early in the morning, and the last thing before roosting time. In addition to this I usually go round the yards at mid-day with a pocketful of corn, and throw them a few grains while I see that they are all as they should be, and it will be well to bear in mind that "the eye of the master makes the horse fat."

One word as to purchasing food—if it is hoped ever to make fowls pay, the grain and meal must not be bought in small quantities, but should be purchased by the quarter or sack. Some friends of my own insist on purchasing it by the gallon, the result being that their birds often have none at all, and what they do have costs twice as much as my own.

Very little need be said on the score of drinking water, save that it should be changed every day, and is best kept in iron vessels, as the latter are not easily broken, and, if a little rusty, will give a chalybeate taste which will be very beneficial. For a number of fowls an iron pig-trough will answer very well, while what are sold as dog-dishes will do very well for a few.

BRAHMAS LATE LAYING.

I THINK it well to give you my experience with this breed since last autumn. I have both Dark and Light Brahma pullets hatched from the last week of February to April, which I considered might commence laying at end of September (seven months), as my pullets of previous year had done to the day almost. Up to time of writing this (December 21st) I have not had one egg, neither any from hens of this breed since 1st of October. They are all kept much as follows: In morning, shaked barleymeal; noon, whole barley or Indian corn; evening, barley-meal, varied with boiled vegetables and scraps of meat as opportunity offers; besides daily run for short time on grass and green food thrown to them. It appears to me most unusual for this length of time to elapse, more especially in pullets. I shall feel obliged if the result of your longer experience points to some reason, either the nature of this breed or present severity of season, as a cause.—*AGRICOLA.*

[We have no doubt that the severe weather retards the laying. See what Mr. Burnell says in our columns to-day on feeding.—*EDS.*]

MONEY RESULTS OF THE BIRMINGHAM POULTRY SHOW.

THE sales of poultry at the Birmingham Show amounted to £1450, against £1470 last year, and £1140 lls. in 1872. The prize birds were put up on the first day of the Show as heretofore; 51 pens entered in the aggregate at £249 lls., fetching under the hammer £348 19s., and leaving a surplus of £99 8s. to be divided between the exhibitors and the Society. Some of the birds fetched good prices. For instance, the silver-cup Light Brahma cock, entered for £5 5s., sold for £16 16s.; the silver-cup White Dorking pullets, entered at £6 6s., sold for £12 1s. 6d.; the third-prize White Cochins cockerel, entered at £20, sold for £31; the second-prize Rouen Ducks, entered at £8 8s., sold for £12 12s.; the first-prize young Turkey cock, entered at £6 6s., sold for £9 19s. 6d.; the first-prize young Turkey hen, entered at £10 10s., sold for £11 11s., and the silver-cup Jacobin Pigeons, entered at £12 12s., sold for £15 15s. A second-prize Light Brahma cock sold for £21; a fourth-prize pen of Buff Cochins hens for £10 10s.; and first-prize Black-breasted Game cock for £10 10s.; those being the amounts at which they were respectively entered. The following, with many others, were claimed at the catalogue prices:—The silver-cup Partridge-feathered Cochins hens, £50; the first-prize Brown-breasted Red Game cockerel, £25; a Black cock Carrier Pigeon, £20; a very highly commended Dark Brahma cock, £15 15s.; a third-prize Buff Cochins cockerel, £15; a pen of Dark Brahma

pullets, £12 12s.; a first-prize pen of Turbit Pigeons, £12; the silver-cup old Turkey hens, £11 11s.; a commended Dark Brahma cockerel, £10; a pen of Dark Brahma hens, £10 10s.; a pen of Dark Brahma pullets, £10 10s.; a second-prize Light Brahma cockerel, £10 10s.; the silver-cup Dorking-hens, £10 10s.; a commended Duckwing Game cockerel, £10 10s.; a highly commended old Turkey cock, £10 10s.; a first-prize White cock Pouter Pigeon, £10 10s.; and a highly commended pen of Fantail Pigeons, £10.—(*Irish Farmers' Gazette.*)

MANCHESTER POULTRY AND PIGEON SHOW.

THIS, the fourteenth annual Exhibition, was held, as heretofore, in the Zoological Gardens, Belle Vue. It continued during the 22nd, 23rd, and 24th inst. The entries amounted to 2600.

Dorkings, Cochins, Spanish, and Brahmas were judged by Mr. R. Teebay; Game and Black Red Game Bantams by Mr. J. H. Smith; Polands, Hamburgs, French Fowls, and Extra stock by Mr. J. Dixon; Ducks, Geese, and Ornamental Waterfowl by Mr. J. Douglas. Pigeons, classes 87 to 103, by Dr. Cottle; classes 104 to 127 by Mr. T. J. Charlton.

We need not particularise the prize birds, for in all the classes they were excellently judged, as might be anticipated when the names of those who made the awards are read. All the classes, both in poultry and Pigeons, contained most excellent specimens, and it is scarcely justifiable to observe that above all the Game were superior. We hope to give some comments next week; our two reporters were unavoidably absent. The attention to the fowls and Pigeons left nothing to be desired.

The following is a list of the awards:—

DORKINGS.—*Coloured, except Silver-Gray, Cockerel*.—1, C. Widdis, Grange, Howden-in-Wear. 2, E. Barker, Stokesley. *Pullet*.—1, J. Waite, Netherthorpe, Wakefield. 2, S. Brierley, Radnor, Rochdale.
DORKINGS.—*Cock*.—1, J. Walker, Rochdale. 2, W. Whitworth, jun., Longsight. *Hen*.—1, T. W. L. Hind, Kendal. 2, Mrs. F. S. Arkwright, Sutton Scaradale, Chesterfield.
DORKINGS.—*Silver-Gray, Cockerel*.—1, J. Moser, Aikrigg, Kendal. 2, W. W. Rutledge, Shortland, Kendal. *Hen or Pullet*.—1, W. W. Rutledge. 2, J. Moser.
DORKINGS.—*Rose-combed*.—1, J. Robinson, Snarlerland. 2, Mrs. A. Tindal, Aylesbury.
SPANISH.—*Cock*.—1, H. Beldon, Gostcock, Bingley. 2, J. Barry, Bristol. *Hen*.—1, J. Leeming, Preston. 2, J. Thresh, Bradford.
SPANISH.—*Cockerel*.—1, G. K. Chelcott, Bristol. 2, J. Leeming. *Pullet*.—1, J. Ghidon, Bristol. 2, Mrs. Allsupp, Worcester.
COCHIN-CHINA.—*Cinnamon and Buff, Cockerel*.—1, J. Walker. 2, W. A. Burnell, Kingley. *Hen*.—1 and 2, W. A. Taylor, Manchester. *Pullet*.—1, Walker and Cartmel, Kendal. 2, W. A. Taylor.
COCHIN-CHINA.—*Brown and Partridge-feathered, Cockerel*.—1, J. A. Taylor. 2, R. Lacy, Hebbeln Bridge. *Hen*.—1, T. Stretch. 2, J. H. Jones. *Pullet*.—1, Mrs. A. Tindal. 2, R. P. Percival, Northenden.
COCHIN-CHINA.—*White, Cockerel*.—1, R. P. Percival. 2, R. S. S. Woodgate. *Hen or Pullet*.—1, W. A. Burnell. 2, R. S. S. Woodgate.
BRAHMA FOOTRA.—*Dark, Cockerel*.—1, H. Lacy. 2, T. F. Ansfield, Cowley Mount, St. Helens. *Hen*.—1, T. F. Ansfield. 2, W. H. Crabtree, Levensham.
BRAHMA FOOTRA.—*Cockerel*.—1, R. P. Percival. 2, Horace Lingwood, Barking. *Pullet*.—1 and 2, M. Leno, Dunstable.
BRAHMA FOOTRA.—*Light, Cockerel*.—1, Mrs. A. Tindal. 2, R. P. Percival. *Hen*.—1, W. H. Crabtree. 2, J. Steel, Leek.
BRAHMA FOOTRA.—*Light, Cockerel*.—1 and 2, Horace Lingwood. *Pullet*.—1, P. Haines. 2, R. E. Horsfall, Liverpool.
POLISH.—*Cock*.—1 and 2, H. Beldon. *Hen or Pullet*.—1, G. C. Adkins, Birmingham. 2, A. & W. H. Silvester, Sheffield.
MALAYS.—1, R. Hawkins, Seaham. 2, S. B. Perry, Lymington.
CARVE-GEES.—*Cock*.—1, R. B. Wood, Uxeter. 2, W. Dring, Faversham. *Hen or Pullet*.—1, W. H. Crabtree. 2, R. B. Wood.
HOUDANS.—*Cock*.—1, E. B. Wood. 2, W. O. Quibell, Newark. *Hen*.—1, G. W. Hubert, Goolley. 2, W. Dring.
HOUDANS.—*Cockerel*.—1 and 2, R. B. Wood. *Pullet*.—1, W. Dring. 2, R. B. Wood.
GAME.—*Black-breasted Red, Cockerel*.—1, W. J. Pope, 2, C. F. Barnett, Nanterton. *Hen*.—1, W. J. Pope, Biggleswade. 2, W. Johnson, West Derby.
GAME.—*Black-breasted Red, Cockerel*.—1, S. Matthew, Stowmarket. 2, D. Harley, Edinburg. *Pullet*.—1, S. Matthew. 2, W. J. Pope.
GAME.—*Brown and other Reds, except Black-breasted, Cockerel*.—1, C. W. Bradley, Middleton. 2, G. F. Ward. *Hen*.—1, J. F. Walton, Rawtenstall. 2, D. Harley.
GAME.—*Brown and other Reds, except Black-breasted, Cockerel*.—1, H. E. Martin, Sealhorpe, Fakenham. 2, R. Ashley, Nantwich. *Pullet*.—1, J. Carlisle, Earby. 2, C. W. Brierley.
GAME.—*Duckwings and other Greys and Blues, Cockerel*.—1, W. J. Pope, Barmley. 2, J. Halsall, Widnes. *Hen or Pullet*.—1, D. W. J. Thomas, Brecon. 2, J. Fletcher, Stoneydough.
ANY OTHER VARIETY.—*Cock*.—1, C. W. Brierley. 2, J. F. Walton. *Hen or Pullet*.—1, C. W. Brierley. 2, J. Stabler, Great Duffield.
DUCKS.—*Rouen—Drake*.—1 and 2, T. Wakelield, Golborne, Newton-le-Willows. *Duck*.—1, T. Wakelield. 2, J. Walker. *White Aylesbury*.—1 and 2, J. Walker. *Black East Indian*.—1 and 2, J. W. Kellaway, Isle of Wight.
ORNAMENTAL WATERFOWL.—*Pair*.—1, J. J. Walker. 2, M. Leno.
GEES.—*White, Gander*.—1, J. K. Fowler, Aylesbury. 2, Capt. L. Anyon, Chorley. *Goose*.—1, J. J. Walker. *Young Goose*.—1, J. Walker. 2, J. K. Fowler. *Young Gander*.—1, J. Walker. 2, J. White. *Young Goose*.—1, J. White. 2, J. K. Fowler. *Young Gander*.—1, J. Lycey, Staffort. 2, S. H. Stott, Huntley Brook, Bury.
TURKEYS.—*Cock*.—1, Rev. N. J. Rileys, Newbury. 2, W. Wykes, Huncley. *Young Cock*.—1, E. Arnold. 2, W. Wykes. *Hen*.—1, E. Kendrick, Lichenfield. *Young Hen*.—1 and 2, J. Walker.
EXTRA STOCK.—*Any other variety*.—1, T. Aspin, Blackheath. 2, J. Walker.
HAMBURGERS.—*Golden-spangled, Cockerel*.—1, J. Patrick, Blackheath. 2, J. Long, Bromley Common. *Hen or Pullet*.—1, J. M. Kilvert, Wem, Salop. 2, R. Gladstone, Brook Green.
HAMBURGERS.—*Silver-spangled, Cockerel*.—1, T. Boulton, Handford, Stoke. 2, G. J. Duckworth, Church. *Hen or Pullet*.—1, J. Buckley, Ashton. 2, W. A. Hyde.
HAMBURGERS.—*Silver-pencilled, Cockerel*.—1, Duke of Sutherland. 2, Ashton and Booth, Broadbent. *Hen or Pullet*.—1, Ashton and Booth. 2, J. Robinson.
HAMBURGERS.—*Golden-pencilled, Cockerel*.—1, J. Walker. 2, G. J. Duckworth. *Hen or Pullet*.—1, J. Robinson. 2, H. Beldon.
HAMBURGERS.—*Silver-pencilled, Cockerel*.—1, Duke of Sutherland. 1.
GAME BANTAMS.—*Black-breasted Red, Cockerel*.—1, G. Hall, Kenil. 2, J. Blauders, Great Horton. *Hen or Pullet*.—1, W. Baskerville, Manchester. 2, T. P. Mansell, Lincoln.

GAME BANTAMS.—*Brown-breasted Reds*.—Cock.—1 J. R. Fletcher, Stone clough. 2, T. Barker, Burnley. Hen or Pullet.—1, J. K. Fletcher. 2, J. Anderson, Bialfoot.

GAME BANTAMS.—*Duckwings*.—Cock.—1, W. Baskerville. 2, F. C. Newbitt, Epworth, Rotham. Hen or Pullet.—1, J. Smith. 2, J. K. Fletcher.

GAME BANTAMS.—*Any other variety*.—Cock.—1, Mrs. E. Newbitt. 2, G. F. Ward, Wrebury, Cheshire. Hen or Pullet.—1, R. Brownlie.

BANTAMS.—*White, Clean-legged*.—1, H. Beldon. *Black, Clean-legged*.—1, J. Eamshaw.

ANY VARIETY.—1, M. Leno. 2, J. Walker.

PIGEONS.

POUTERS.—*Blue or Red*.—Cock.—1, H. Pratt, Bradford. Hen.—1, F. Gresham, Sheffield. *Any colour except Blue or Red*.—Cock.—1, H. Pratt. Hen.—1, Mrs. Ladd. *Black*.—Cock.—1, E. Yardley. Hen.—1, H. Yardley. *Pun*.—Cock.—1, E. Horner. Hen.—1, E. Fulton. *Any colour except Black or Dun*.—Cock.—1, E. C. Stretch. Hen.—1, E. Horner. *Young*.—Cock or Hen.—1, R. Fulton.

DRAGONS.—*Yellow*.—Cock or Hen.—1, W. Hill. *Blue*.—Cock or Hen.—1, F. Graham. *Silver*.—Cock or Hen.—1, F. Graham. *Any other colour*.—Cock or Hen.—1, A. Beswick.

ANTWERPS.—*Short faced*.—Cock or Hen.—1, E. Horner. *Long-faced*.—Cock or Hen.—1, J. W. Hill. *Red or Yellow*.—Cock or Hen.—1, J. Thompson. *Any other colour*.—Cock or Hen.—1, R. Fulton.

BARBS.—Cock or Hen.—1, W. Harvey. *Young*.—1, Major Cryer.

FANTAILS.—*White*.—Cock or Hen.—1, J. F. Loversidge. *Any colour except White*.—Cock or Hen.—1, H. C. Bowman.

TUMBLERS.—*Almond*.—Cock or Hen.—1, H. Yardley. *Beards or Balds*.—Cock or Hen.—1, W. Woodhouse. *Any variety not before named*.—Cock or Hen.—1, A. & W. H. Silvester. *Flying Long-faced Beards*.—Cock or Hen.—1, W. Hill. *Long-faced Balds*.—Cock or Hen.—1, J. Watts. *Long-faced Mottles*.—Cock or Hen.—1, J. G. Orr.

NUNS.—Cock or Hen.—1, W. Croft.

MAGPIES.—Cock or Hen.—1, M. Ord.

TURBITS.—*Red or Yellow*.—Cock or Hen.—1, W. Croft. *Any colour except Red or Yellow*.—Cock or Hen.—1, W. Croft.

SWALLOW.—Cock or Hen.—1, E. Horner.

ARCHANGELS.—Cock or Hen.—1, R. Wilkinson.

OWLS.—*English, Blue*.—Cock or Hen.—1, T. W. Townsend. *Any colour except Blue*.—Cock or Hen.—1, T. W. Townsend. *Foreign*.—Cock or Hen.—1, T. W. T. Wren.

KUNTS.—Cock or Hen.—1, T. D. Green.

TRUMPETERS.—Cock or Hen.—1, J. Holden.

ANY OTHER VARIETY.—1, M. Ord.

HECKMONDWIKE POULTRY SHOW.

THE Wool Warehouse, very kindly lent by Mr. J. Batley, jun.,

of Heckmondwike, is an excellent place for a show of the extent of the one above named, the light being good and equal, and at the one held on Saturday last the birds were well placed in pens of the Committee's own construction. The Society is an old one, and mainly constituted of very old fanciers who were in the fore part of the very commencement of the movement; but the schedule of prizes offered does not keep pace with the times, otherwise, and supposing a really good one were offered, there is little doubt but that they would receive a very marked amount of public support and confidence.

This may be almost called the Game Show of West Yorkshire, for here, year after year, the most skilled breeders of this part have tried their steel; but in this case we noted a marked falling-off in both numbers and quality of Game birds, and there were none we would notice particularly, except the first-prize Duckwings, which were adult birds of grand quality, and the three pens of noticed Piles, the first of which were Willow-legged chickens well shown; second, adult Willow-legged birds of grand colour, but out of condition; the highly-commended pen containing a raw recruit in the shape of a yellow-legged chicken, which must make its mark in the fancy with a few more months of age upon him. *Cochins* were a most excellent class, Buffs first, and Whites second, and every pen noticed. *Brahmas* good, with old first and young second, both Dark. *Hamburgs* were, however, poor, but the *Spanish* good, adult birds winning. In single cocks of any variety the first was a grand old Brahma, and second Brown Red Game; and in hens a magnificent Silver Poland was first and Spanish second. In *Bantams*, Game, the class was unusually good, and the winners very neat, stylish, and perfect; the first cockerel a little short in bar; but the second, though grand in colour, heavy in hackle.

In the next class Piles won, and they were quite up to the mark. Black Bantams were very good in head, but wanting in style, and longer in leg than is desirable, and other varieties a failure.

Of Pigeons there was a fair lot, but the pens were far too small. In *Carriers*, except the first, there was nothing of interest. *Antwerps* very good, as also the *Owls*, where foreign Whites were first and Silver English second. *Dragons* a fair lot also; the first Silvers gems, but the second, though the prize was awarded, had the appearance of cocks. In *Fantails* the winners were very good; and in *Barbs* we noticed a pen of Blacks in first position, which must be of great use to their owner. There was a class for common or Dovehouse Pigeons, which, by the way, ought never, in this day of high culture, to be left out, as they tend so much to set off the great difference of the varieties of Pigeons. In the Variety class the first were Pigmy Pouters, second Black Swallows, and third Spangled Ice, this being a very good class.

The CANARIES were in a very good position, and looked well, the great feature being the Yorkshire varieties of plain and marked birds, which are truly grand birds for the show-cage; as also the Manchester Rabbits were very good entries. We did not get the lengths of the Lops, but they seemed to be pretty well placed. In the next three classes Bradford carried

five of the six prizes off with some very capital Rabbits, Angora winning the prizes in the Variety class.

GAME.—*Black-breasted*.—1 and hc, H. Walker, Gomersal. 2, W. Jagger, Hornby Bridge. *Red*.—1, J. Jagger, Spinkwell, Dewsbury. *Brown Red*.—1, A. Sugden, Swinley, Cleckheaton. 2, S. & W. Sheard, Hightown. *hc*, F. H. Wright, Halifax. *Duckwing, Grey and Blue*.—1, H. C. Mason, Birstall. 2, Stringer & Hemingway, Leedsfield. *Any other variety*.—1, R. Walker, Gomersal. 2, W. J. Mason, Drighlington. *hc*, H. C. Mason.

COCHIN CHICKENS.—1, W. Mitchell, Birkenshaw. 2, C. Carr, Wilsden, Bingley. *hc*, J. Smith, Gilstad. *hc*, E. Pickles, Batley; H. Digby, Acra, Huddersfield; C. Day, Mirfield; Mrs. Kay, Gillingham.

BRAHMA POULTRY.—1, W. Schofield, Sunny Bank, Birkenshaw. 2, J. W. Stansfield, Halifax. *hc*, T. Walker, Bingley; Mitchell & Feather, Keighley. *hc*, C. Carr; A. Johnson, Heckmondwike; J. W. Stansfield; W. Schofield. *hc*, W. Firth, Birkenshaw.

HAMBURGS.—*Gold and Silver-spangled*.—1, A. Wilman, Dewsbury Moor. 2, Stringer & Hemingway. *hc*, E. Clayton, Keighley; W. Kellet, Birstall. *Gold and Silver-pencilled*.—1, C. Carr. 2, J. Smith. *hc*, H. Digby.

SPANISH.—*Black*.—1, J. Thresh, Bradford. 2, C. Carr. *hc*, E. Jagger.

SELLING CLASS.—1, R. Walker. 2, W. Kellet. *hc*, H. Digby (2); J. Smith; S. Greenwood, Wilsden Hill, Bingley; C. Carr.

ANY BREED.—Cock.—1, W. Schofield. 2, D. Clayton, Bradford. *hc*, C. Carr. *hc*, Mrs. Kay; H. Grant. Hen.—1, C. Carr. 2, J. Thresh. *hc*, W. Schofield. *hc*, H. Grant; R. Walker. *hc*, E. Elsworth, Barrowclough Staining, Mirfield; H. Grant.

GAME BANTAMS.—*Red*.—1, J. Sugden, Cleckheaton. 2, G. Noble, Staincliffe. 3, I. Goodall, Heckmondwike. *hc*, W. Smith, Northowram, Halifax. *hc*, F. Holt, Staincliffe; E. Jennings, Staincliffe, Leeds; F. Naylor, Heckmondwike. *hc*, A. Wilmore. *Any other variety*.—1, G. Noble. 2, F. Holt. *hc*, J. Lister, Heckmondwike; F. Naylor; W. Smith.

BANTAMS.—*Black*.—1, Brown & Horsfall, Harding, Bingley. 2, W. Smith. *hc*, C. & J. Illingworth, Hightown. *hc*, H. Jagger. *White or any other variety*.—1, C. Carr.

PIGEONS.

CARRIERS.—1 and hc, Miss M. Seaton, Leeds. 2, B. Rawnaley, Gilstock, Bingley.

ANTWERPS.—1 and hc, B. Rawnaley. 2, Miss M. Seaton. *hc*, R. Parker, Heckmondwike. *hc*, A. Kinsell, Gomersal.

TUMBLERS.—1, J. Hawley, Gillingham. 2, J. H. Sykes, Huddersfield. *hc*, J. Batley, jun., Heckmondwike; B. Rawnaley.

OWLS.—1, Miss M. Seaton. 2, H. W. Stansfield. *hc*, J. Thresh. *hc*, J. Batley, jun.; B. Rawnaley; J. Hawley. *hc*, S. Sharp, Heckmondwike; A. Smith.

POUTERS.—1, J. Hawley. 2, J. H. Sykes.

DRAGONS.—1, Miss M. Seaton. 2, B. Rawnaley. *hc*, A. Smith; J. Hawley. *hc*, E. Smith, Cleckheaton (2).

TURBITS.—1, B. Rawnaley. 2, J. Hawley.

FANTAILS.—1, J. F. Loversidge, Newark. 2, J. Hawley. *hc*, B. Rawnaley; A. Smith.

TRUMPETERS.—1, J. Hawley. 2, B. Rawnaley. *hc*, J. H. Sykes.

CANARIES.

LIZARDS.—*Gold or Silver-spangled*.—1 and 2, L. Belk, Boothroyd.

SILVER.—*Yellow or Buff*.—1, H. Ellison, Batley Carr. 2, J. Horn, Armley. *hc*, L. Belk.

GOLDFINCH MULE.—*Evenly-marked Yellow or Buff*.—1 and hc, L. Belk. 2, Overend & Spedding, Ravensthorpe.

CRESTED.—1 and hc, L. Belk. *hc*, W. Whitaker, Dewsbury.

CINNAMON.—1 and hc, L. Belk. 2, Overend & Spedding. *Evenly-marked, Yellow or Buff*.—1 and 2, L. Belk.

GOLDFINCH.—1, L. Belk. 2, J. Horn.

ANY OTHER VARIETY.—1 and 2, L. Belk. *hc*, Overend & Spedding.

RABBITS.

LOP-EARED.—*Self colour*.—*Buck or Doe*.—1, J. M. Mander, Wakefield. 2, T. and E. J. Fell, Blackburn. *hc*, S. & W. Sheard. *Broken Colour*.—1, G. S. Burton, Leeds. 2, L. E. & W. Miller, Bradford.

HIMALAYAN.—*Buck or Doe*.—1, S. Ball, Bradford. 2, J. Gelder, Bradford. *hc*, G. S. Burton.

SILVER-HAIR.—*Buck or Doe*.—1, S. Ball. 2, H. R. Glew, Wakefield. *hc*, H. R. Glew; S. Ball.

ANY OTHER VARIETY.—*Buck or Doe*.—1, S. Ball. 2, G. C. Hutton. *hc*, A. Atkinson, Huddersfield.

COMMON.—*Buck or Doe*.—1, A. Atkinson. 2, H. Senior, Staincliffe. *hc*, J. C. Brook, Heckmondwike.

JUDGES.—Poultry: Mr. W. Cannan, Bradford. Pigeons: Mr. E. Hutton, Pudsey. Rabbits and Canaries: Mr. J. Beaumont, Dewsbury.

SELKIRKSHIRE POULTRY SHOW.

THE twelfth annual Show was held in the Volunteer Hall at Selkirk on the 22nd and 23rd inst. The pens used were of wood with wire fronts, the whole front composing a door, which made the birds very easy to examine, and the arrangements were very good and well carried out. The list of prizes are just a bare offer of money, with no champion cup or other inducement to the more ambitious of exhibitors, and yet the entries were very good, many English breeders trying their skill against their Scotch friends.

In Game, single cocks, a terrible old firefly of a Black Red, which it is quite dangerous to handle, secured first position; the second, a yellow-legged Pile, was a gem; the third also Black Red. In cock and hen Mr. Hanley won with a magnificent pair of Brown Reds. The second and third were Black Reds; but in the next class Mr. Nelson made compensation to himself by taking first position with a splendid pair of Brown Reds. The second and third here also Black Reds. Old *Dorkings* were a good lot, Dark Greys winning the prizes, that variety also coming to the front in chickens, with Silvers second and third. These were good classes. *Cochins* were very good; first and second Buffs, and third Whites. *Brahmas* were only good as regards the winners, the first old, and second young. The cockerel in the latter was a grandly marked bird. The prizes for chickens of the large varieties were won by Cechins and Brahmas by a Company termed the Selkirk Poultry Company, who are determined to try the production of eggs and table poultry fairly as to its remunerativeness; and let this prove as it may, there is little doubt but that if they can succeed in producing a few such pens as these as well, the balance will be on the right side of the ledger. *Hamburgs*, *Gold-pencils* a good lot, as also the *Gold-*

spangles; the Silver being poor, excepting as far as they were noticed. The first-prize pen, however, was just grand. In the Border Counties class first were Crève-Cœurs; second Gold-pencils, even better than those in the class; and third Cochins. The Selling class was large, and there were many very cheap. We never yet could bring ourselves to admire the Scotch system of showing the *Bantams* in bell-shaped pens in full sight of each other, for the restive little fellows are ill at ease and most difficult to judge—in fact, except as regards colour it is quite haphazard. In this section the entries were very good, and some of the champion birds of the season graced the pens and were well to the front. *Aylesbury Ducks* were all noticed and really good, and *Rouens* were quite perfect.

Pigeons, well placed in bell-shaped pens on tables quite under the eye, were a very pretty sight, and some capital birds competed. First on the list were Tumblers, and the winners Almond and Agates. Fantails very good, but the tails carried a little too flat on the back. Pouters were first Blue, second Black, and third White, large and stylish. Jacobins very good; Reds first and Yellows second. Nuns also good and clean; and English Owls a heavy class. First a grand pair of Silvers, evidently quite young, second Blue, and third White, by far the best except as regards the colour. In Turbitts a pair of Silver shell-crowned birds were placed first, these being perfect in all respects except that the bars are a little too kity; second very good point-headed Blues; and third Yellows. Here, as in poultry, there was a large Selling class, and many birds changed hands. The Variety class contained some good pens of standard birds, the prizes going to Dan Barbs, Black German Letz, and Blue Dragons. The Show was a success.

The following is a list of the awards:—

GAME.—Cock—1, W. Youngusband, Darlington. 2, D. Harley, Edinburgh. 3, J. Montgomery, Stretton-under-Fosse, Rugby. *he*, J. Nelson, Cockshaw, Hexham.

GAME—1, D. Harley. 2, J. A. Mather, Nithside, Closeburn. 3, J. Nelson. *Chickens*—1, J. Nelson. 2, J. A. Mather. 3, J. Brough, Carlisle. *he*, J. Montgomery. 4, G. Parker, Riddell; W. Youngusband; D. Harley. *c*, Selkirk Poultry Co.

DORKINGS—1, G. Amos, Melrose. 2, R. Reid, Haddenstree, Canonbie. 3, G. Parker, *he*, Capt. Lyon, Kirkcubbin, Dunfermline. *c*, A. Inglis, Stobo Castle, Stobo. 4, R. Reid, *Chickens*—1, R. Reid. 2 and 3, G. Parker. *he*, G. Amos. *he*, A. McKie, Heron Hill, Hawick; Capt. Lyon (2). *c*, A. Fairbairn, Whitmuir, Selkirk.

COCHIN-CHINAS—1, R. Marshall, Dumfries. 2 and 3, Capt. Lyon. *he*, W. R. Park, Melrose. *c*, A. McKie. *Chickens*—1, Selkirk Poultry Co. **BRAMA POOTRAS**—1, J. A. Dempster, Stirling. 2, R. Marshall, Dumfries. 3, Capt. Lyon. *c*, R. Reid. *Chickens*—2 and 3, Selkirk Poultry Co. *he*, P. S. Lonsdale.

SPANISH.—Chickens—*c*, J. Cairns, Galashiels. **HAMBURGERS.—Golden or Silver-pencilled**—1, R. Linton, Selkirk. 2 and *he*, R. Dickson, Selkirk. 3, W. Linton, Selkirk. *c*, J. Y. Hunter, Hawick.

HAMBURGERS.—Golden-spangled—1, R. Keenleyside, Aycliffe, Darlington. 2, G. Stalker, West Sleekbar, Bellingdon. 3, J. Kirkland, Stewarton. *he*, A. Heathie. *c*, T. May, Wolverhampton. *Silver-spangled*—1, W. R. Park. 2, E. Clayton, Thornton Banks, Kelzley. 3, G. Stalker. *he*, R. Cameron, Stewarton; J. Ballantyne, Selkirk.

ANY VARIETY.—Continued to the Border Counties—1, J. Linton. 2, R. Dickson. 3, Selkirk Poultry Co. 4, W. Linton. *he*, Selkirk Poultry Co.; T. Scott, Selkirk.

ANY OTHER VARIETY—1 and 3, W. R. Park. 2, H. A. Clark, Aspatria, Carlisle. *he*, Selkirk Poultry Co. (2); H. A. Clark. *c*, Selkirk Poultry Co.

SELLING CLASS—1, W. Coult, Selkirk. 2 and 3, Selkirk Poultry Co. *he*, W. R. Park. *he*, Capt. Lyon; J. Ashcroft, Canonbie. *c*, G. Dryden, Selkirk; Capt. Lyon. *c*, W. Scott.

GAME BANTAMS.—Black or Brown Red—1, J. Nelson. 2, J. Hine, Kendal. 3, T. Barker, Hill End, Barnley. *he*, H. Butler, Bradford. *he*, J. Hine; G. McMillan, Jedburgh; R. Hislop, Carnforth; J. Nelson.

GAME BANTAMS.—Any other variety—1 and 2, J. Nelson. 3, T. Barker. *he*, T. Beaveley, Bedlington Station; R. J. Hartley, Altrincham, Cheshire. *c*, A. Hutton, Carlisle, Earlston.

BANTAMS.—Any variety other than Game—1, R. H. Ashton, Mottram. 2, J. A. Dempster, Stirling. 3, J. Kewley. *he*, J. Fairbairn, Carlisle, Earlston; R. H. Ashton; R. Frew, Kircaldy.

BANTAMS.—Any variety.—Cock—1, W. McGregor, Stenhousemuir, Larbert. 2, J. Nelson. 3, Selkirk Poultry Co. *he*, A. Hutchison, Grahamston; J. Scott; J. Nelson. *c*, T. Barker.

DUCKS.—White Aylesbury—1, G. Dryden, Selkirk. 2 and 3, Capt. Lyon. *he*, T. Riddell. *Rouen*—1 and 3, G. E. Statler, Broomhill, Carlisle. 2, J. A. Mather. *he*, Capt. Lyon; J. Nelson.

PIGEONS.

TUMBLERS—1, W. Brydone, Longton Mains, Dunee. 2, J. Kidd, Edinburgh. 3, J. M. Brydone, Longton Mains. *he*, J. Y. Hunter, Hawick.

FANTAILS—1 and 3, J. F. Lovesidge. 2, A. Crosbie, Abbotsmoleway. **POUTERS**—1, M. Gill Skinner, Edinburgh. 2, R. W. Bryce, Edinburgh. 3, J. McDonald, Portobello.

JACOBIANS—1, W. Brydone. 2, J. Brydone. 3, R. W. Bryce. **NUNS**—2, R. Lawrie, Melrose. 3, J. Cairns. *c*, R. W. Bryce.

OWLS.—English—1, R. W. Bryce. 2, W. Ritchie, Edinburgh. 3, J. M. Brydone. *he*, J. Inglis, Selkirk (2). *c*, R. Lawrie.

ANY OTHER VARIETY—1, J. M. Brydone. 2, A. Crosbie. 3, W. Brydone. *he*, J. Brydone. *he*, R. Lawrie. *c*, R. W. Bryce. *he*, Mrs. Lang, Selkirk.

ANY OTHER VARIETY—1, J. E. Spence, Broughty Ferry. 2, A. Crosbie. 3, J. Cawley, Chester. *he*, J. Brydone. *he*, R. W. Bryce; W. Brydone; A. Hutton.

SELLING CLASS—1 and *he*, A. Crosbie. 2, J. Inglis. 3, A. Hutton. *he*, W. Brydone; J. Brydone; W. Leithhead, Tinnis; J. M. Brydone; R. Frew. *c*, J. Watson, Selkirk; McGill Sanner; J. Cowe, Aberdeen; G. Walker, Selkirk.

CANARIES.

SCOTCH FANCY.—Yellow.—Cock—1, T. Darling, Hawick. 2, J. Hardie, Galashiels. 3, G. Park, Galashiels. *Hen*—1, G. Ritchie, Selkirk. 2, W. Turnbull, Hawick. 3, P. Marshall, Selkirk.

SCOTCH FANCY.—Duff.—Cock—1, W. Mirtle, Galashiels. 2, R. Hunter, Galashiels. 3, W. Clark, Langholm. *Hen*—1, J. Heathie. 2, P. Marshall. 3, R. Hunter.

PREPARED.—Yellow.—Cock—1, J. Hardie. 2, W. Mirtle. 3, G. Park. *he*, P. Marshall. 2, W. Hyslop, Selkirk. 3, W. Turnbull. *Hen*—1, T. Darling. 2, A. Mason, Galashiels. 3, P. Marshall.

YELLOW.—Hen—1, P. Marshall. 2, W. Clark. 3, J. Hardie. **MULES**—1, G. Spiers, Selkirk. 2 and 3, T. Wilson, Hawick.

NATIVE BIRDS—1, W. Clark (Goldfinch). 2, A. Fowler, Selkirk (Bullfinch). 3, J. Heathie (Bullfinch).

The Judge was Mr. E. Hutton, Paisley, Leeds.

BROUGHTY FERRY POULTRY SHOW.

THIS Show was held in the Temperance Hall, Broughty Ferry, on the 18th and 19th inst. It was most successful, there being over five hundred entries. The poultry were well shown in the pens of the Kilmarnock Society, while the Pigeons were exhibited in the bee-hive pens generally used at Scotch shows.

Class 1, *Dorking* cocks, contained twenty entries, and were a show in themselves. The winner was good all over, and certainly the best in the class; but the second we did not like so well as the third. Class 2, *Dorking* hens (sixteen entries); an easy first and second for Mr. Gellatly, with very superior birds. Class 3, *Cochin* cocks (twenty). This was a well-filled good class. First a Partridge, which also took the cup for Cochins; second a splendid Buff, a better bird in most respects. *Cochin* hens numbered twenty-five—a goodly entry, but the winners easily picked out. The cup might have gone to the ladies in this case. *Brahmas* were numerous and good, both in the cock and hen classes. *Game* cocks made a good appearance, twenty-three of them turning out. The cup was taken by a good Brown Red. *Game* hens, though not so numerous as the cocks, were of better quality. The first-prize was a grand hen, and deserved, not only her place, but the cup. *Spanish* and *Hamburgs* had not anything very striking in their ranks, but with the next class—viz., *Game Bantams*, it was different, for in a class of very good birds Mr. Brownlie's little Pile stood out an easy winner of the *Game Bantam* cup. In the *Bantam Variety* class a pair of good Silver Sebrights were first; second good Blacks. The other classes contained nothing of importance.

PIGEONS numbered 175 entries, and amongst them there were many cracks, a good few of which went under. *Pouter* cocks, Any colour, seven entries. Mr. Bryce here won first and cup for the best *Pouter* in the Show with a Black, not nearly so good, however, as Mr. Ure's second and third, which were better birds in every way. In *Pouter* hens (twelve entries), Mr. Bryce was again successful, but, as before, Mr. Ure's third and very highly-commended beat him hollow, as far as we can see. Second a fair Yellow, but washy in colour; third a splendid Black. *Pouters* of 1874 were very good and well judged. The first and second two magnificent Blues; third a stylish Black. Several English birds were shown in this class. They did not like it. *Carriers* were not numerous, but of good quality. Mr. Smith first with a good hen deservedly. Mr. Spencer's very highly-commended we liked next, and then Mr. Smith's third. In *Tumblers* Mr. Beckwith won with a pretty little Agate; second a whole Red; third a good Kite. It is easily demonstrated that *Fantails* are at home in Broughty Ferry, as thirty-two of them put in an appearance to compete for the cup offered them. Mr. Galt won with a nice bird, not so good, however, as the three following it in the prize-list, nor yet equal to the same gentleman's other entry. Mr. Lovesidge showed four pens unsuccessfully of the English type. *Jacobins* were not a specially good class, and the same may be said of that for *Turbitts* and *Owls*, except the first-prize Foreign. *Trumpeters* were headed by Mr. Lederer's bird, which in the face of the second, and still more so the third, was wrong. *Barbs* were a grand lot, Mr. Bryce's Red having to put up with second honours to a good Yellow; third a handsome Dun; extra third Black. The Variety class contained nothing of note.

DORKINGS.—Cock—1 and Cup, Mrs. W. Chalmers, Broughty Ferry. 2, Col. M. Dougall, Tayport. 3, G. Cathill, Meigle. *he*, G. Cathill, Mrs. Armitstead, Inchture; W. L. Mason, Errol. *c*, R. Blyth, Kingskettle. *Hen*—1 and 2, D. Gellatly, Meigle. 3, G. S. Robb, Leshe. *he*, R. Blyth. *c*, Mrs. Armitstead; D. Welch, Errol.

COCHINS.—Cock—1 and Cup, Mrs. Armitstead. 2, Mrs. W. Stevan, Montrose. 3, W. M. J. Paton, Broughty Ferry. *he*, Mrs. A. G. Duncan, Broughty Ferry. *c*, W. Nicoll, Forfar; Mrs. W. Garner, Long. *Hen*—1 and 2, W. M. J. Paton. 3, Local. *c*, A. G. Duncan. 3, W. Nicoll. *he*, W. Smith, Newport; Mrs. W. Stevan; T. Bruce, Glasgow. *c*, Mrs. W. Carney; Miss Drummond, Errol.

BRAMAS.—Cock—1, J. Smart, Dundee. 2, A. Garnet, Montrose. 3, W. H. Norrie, Broughty Ferry. *he*, W. Henderson, Tayport; J. Sandeman, Dundee. *c*, F. C. Parker, Dundee. *Hen*—1 and Cup, A. Burnett. 2 and *he*, Mrs. W. Stevan. 3, Local. *c*, G. Duncan. 3, Mrs. Littlejohn, Broughty Ferry. *c*, J. C. Smith, Broughty Ferry.

GAME.—Cock—1 and Cup, T. W. Mitchell, Perth. 2, J. H. Herriot, Kircaldy. 3, W. Nicoll. *he*, J. Livesdon, Forfar; Master A. Frew. *c*, Mrs. J. Millison, Meigle. *Hen*—1 and 2, T. Tosh & Co., Forfar. 3, H. W. Hutcheson, Kircaldy. *he*, D. Stewart, Forfar; G. Salmund, Monteth. *c*, J. Patullo, Broughty Ferry.

SPANISH—1, W. M'Beath, Tillycoultry. 2, J. Norval, Alloa. 3, Mrs. W. Stevan. *he*, J. Soutar, Carnoustie. *c*, G. Sandeman, Kermuir.

HAMBURGERS.—Spangled—1, G. Low, Carnoustie. 2, G. Campbell, New Pitsligo. 3, Mrs. Brown, Crief. *c*, H. Stewart, Carnoustie. *Pencilled*—1 and Cup, G. Cathness, Carnoustie. 2, R. Thomson, Kircaldy. 3, H. Russell, *he*, J. Taylor, Montrose.

GAME BANTAMS.—Cock—1 and Cup, R. Brownlie, Kircaldy. 2, J. Patterson, Monteth. 3, J. Grievie, Aberdeen. *he*, R. Stenhouse, Crossgates. *c*, A. Walker, Monteth. *Hen*—1, J. Waddell, Airdrie. 2, Mrs E. P. Frew, Kircaldy. 3 and *c*, R. Brownlie. *he*, J. Grievie.

BANTAMS.—Variety—1 and 3, Miss R. C. Frew. 2, R. H. Ashton, Manchester. *he*, J. Symon, Errol.

ANY OTHER VARIETY—1, J. Taylor. 2, G. Cathness. 3, R. Blyth. *he* and *c*, J. Smart.

DUCKS—1, A. Dowie, Carnoustie. 2, Col. M. Dougall. 3, A. Mackie, Liff. *he*, P. Symon.

SELLING CLASS.—*Cock or Two Hens*.—1, Mrs. C. B. Taylor, Montrose. 2, A. Bowie. 3, W. Smith. *hc*, Mrs. A. G. Duncan; J. E. Spence, Broughty Ferry; A. Bowie; G. H. Nicoll.

CROSS.—1, W. Crabb, Monifieth. *Cock*.—1, Mrs. Chalmers. *Hcn*.—1, A. Walker.

PIGEONS.

POUTERS.—*Cock*.—1 and Cup, R. W. Bryce, Edinburgh. 2 and 3, G. Ure, Broughty Ferry. *hc*, A. Robb, Alloa. *hc*, G. Ure; W. S. Mallister, Lanark. 4, T. Mulholl, Perth. *Hcn*.—1, R. W. Bryce. 2, A. Robb. 3, G. Ure. *hc*, G. Ure; Major Thomson, Broughty Ferry. *hc*, T. Mulholl; Major Thomson. 4, G. Ure; Major Thomson. 5, E. Spence. 6, Young. 7 and 8, G. Ure. 9, J. C. Lyell, Monifieth. *hc*, R. W. Bryce; G. Ure. *hc*, A. Robb. *c*, J. E. Spence; E. Beckwith, Monkwearmouth; J. C. Lyell.

CARRIERS.—*Cock or Hen*.—1 and 3, A. Smith, Broughty Ferry. 2, E. Beckwith. *hc*, P. R. Spencer; J. C. Lyell. *hc*, J. E. Spence. *c*, P. R. Spencer.

TUMBLERS.—*Cock or Hen*.—1, E. Beckwith. 2, J. Smart. 3, D. Brash, Edinburgh. *hc*, J. Smart; J. Kilgour, Crossgates. *c*, A. Duncan, Crossgates.

FANTAILS.—*Cock or Hen*.—Cup and *hc*, J. Galt, Kilbrinie. 2, J. E. Spence. 3, G. Ure. Extra 3, A. Smith. *hc*, J. E. Spence. *c*, J. Smart; P. R. Spencer; E. Beckwith; W. Baillie, Monifieth.

JACOBIANS.—*Cock or Hen*.—1 and 3, R. W. Bryce. 2, J. Smart.

TRUMPETERS.—*Cock or Hen*.—1, J. Lederer, Liverpool. 2 and 3, G. Ure.

TURBITS OR OWLS.—*Cock or Hen*.—1, R. W. Bryce. 2, T. Nicol. 3, W. & R. Davidson, Montrose.

BARDS.—*Cock or Hen*.—1, 5, and *hc*, J. E. Spence. 2, R. W. Bryce. Extra 3, P. R. Spencer. *hc*, T. Nicol; E. Beckwith. *c*, R. W. Bryce; J. Cowe, Aberdeen.

VARIETY CLASS.—*Cock or Hen*.—1, J. M. Rodgers, Montrose. 2, W. McClive, Ayr. 3, T. Nicol. *hc*, R. Brownlie. *c*, J. M. Rodgers; J. Kilgour.

TUMBLERS.—1, J. G. Orr. 2, D. Paton.

CANARIES.

BUFF OR YELLOW.—*Cock*.—1, G. Crow. 2, A. Morris, Loches. *hc*, D. Kilgour; F. Batchelor. *c*, D. McDonald, Forfar; D. Wright, Dundee. *Hcn*.—1, J. Leitch, Dundee. 2, A. Morris. *hc*, J. Livingston; A. Livingston. 3, W. Boyle, Arbroath; D. Kilgour, Crossgates.

MARKED.—*Cock*.—1, W. Maally, Loches. 2, J. Leitch. *hc*, C. Ormond, Forfar. *Hcn*.—1, D. McDonald. 2, J. Muller, Dundee. *hc*, D. Kilgour (2). *c*, J. Lawson, Dundee; D. Wright.

ANY OTHER VARIETY.—1, J. Shanks, Arbroath. 2, A. Morris. *c*, J. McIntyre; C. Ormond.

JUDGES.—*Poultry*: Mr. Paterson, Airdrie. *Pigeons*: Capt. Hill, London.

LIVERPOOL CANARY SHOW.

THE fifth annual Show of Cage Birds was held at Liverpool on Friday and Saturday, December 11th and 12th. There were 128 birds shown for competition, the greater portion of which were Belgian-bred birds, exhibited in the first four classes, a silver cup having been offered by Mr. Rogers, the Secretary, to the winner of the most points in the Belgian classes. The awards are as follow:—

BELGIANS.—*Clear Yellow*.—1, E. Simpson, Wally, Wigan. 2, A. Duxbury, Over Darwen. 3 and 4, T. M. Reid, Halifax. *hc*, J. Martlew, Ormskirk; A. Duxbury. *hc*, J. Hughes. *Clear Buff*.—1, A. Duxbury. 2, E. Simpson. 3, J. Hughes. *hc*, T. M. Reid; E. Simpson. *hc*, J. Foster. *c*, A. Macferson; J. Martlew.

BELGIANS.—*Ticked or Variegated Yellow*.—1, E. Simpson. 2, A. Duxbury. 3, J. Hughes. *hc* and *c*, J. Martlew. *hc*, W. H. Jacobs. *Ticked or Variegated Buff*.—1 and 2, J. Hughes. 3, Mrs. Rogers. *hc*, J. Coward. *hc*, J. Martlew. *c*, A. Duxbury.

LIZARDS.—*Goldenspangled*.—1, T. M. Reid. 2, Cleminson & Ellerton, Darlington. 3, J. Grace, Everton. *hc*.—Hardy, Eccleston, St. Helen's. *hc*, W. Lawton, Liverpool. *c*, J. H. Rogers. *Silverspangled*.—1, J. McGregor. 2, T. M. Reid. 3, J. H. Rogers. *hc*, J. Grace. *hc*, W. Roston. *c*, W. Lawton.

NOAHWIG.—*Clear Yellow*.—1, J. H. Rogers. 2, J. McGregor. 3, J. Hooley. *hc*, A. Macferson. *hc*, W. Peers. *c*, R. Murray. *Clear Buff*.—1, R. Murray. 2, J. Grace. 3, A. Macferson. *hc*, F. Walker. *c*, W. Storms.

NORWICH.—*High Colour Yellow*.—1, A. Duxbury. 2 and 3, J. H. Rogers. *High Colour Buff*.—1, A. Duxbury. 2 and 3, J. H. Rogers. *c*, T. M. Reid.

SINGING CANARIES.—1, W. Lawton, Bronte Street, Liverpool. 2, J. H. Rogers.

3, J. Latham, Wigan.

GOLDFINCHES.—1, W. Roston. 2, C. Gibson. 3, T. Short.

JUDGE.—Mr. Orrell, Bolton.

THE DRAGOON.

MUCH as I admire "WILTSHIRE RECTOR's" ably written article in last week's Journal on my pet the Dragoon, I, as a thorough Dragoon fancier, beg to differ from him on one or two very essential points. "WILTSHIRE RECTOR" says a Dragoon "should not be a large bird; the beak should not be short and thick; the eye-wattle should not be a little pinched at the back, but as circular as possible." Now, not only I but every Dragoon fancier of my acquaintance considers size a great desideratum, and in selecting breeding stock choose birds (especially hens) possessing size. I have carefully noted the awards at recent exhibitions, and always found birds of good size to the front. It should not be so large as a Carrier, but above the size of an ordinary Pigeon. Next comes the beak. I believe we are all agreed that the length should not exceed 1½ inch from centre of eye, but by all means we must have a stout beak. I would not have the spindle-beaked birds one occasionally sees at a local exhibition. As a specimen of the stout beak I so much admire, I refer those of your readers who visited the recent Birmingham Show to the cup pen of Blues. Why "WILTSHIRE RECTOR" holds out that the eye-wattle should not be a little pinched at the back I am at a loss to understand, since not only nearly every pure Dragoon shows this point, but it is also an essential difference from the eye-wattle of a Carrier. I quite agree with you correspondent that the Dragoon should be a smart-looking, a finely-formed bird, and as unlike a Carrier in every respect as possible, but cannot give way that it should be slightly built, or we shall soon see this beautiful bird deteriorate into little better than a common Skionum.

Having pointed out where I disagree with "WILTSHIRE

RECTOR," I will give my idea of a Dragoon and the standard I breed to. In the first place, a Dragoon (as I have just observed) should possess size; good carriage is another essential point. The eye-wattle small, neat, and slightly pinched at the back, with a tinge of black inside nearest the pupil of the eye, which greatly increases the bold wild appearance of the bird. Colour of eye bright deep orange or red. The beak stout, black, and measuring 1½ inch from centre of eye, slightly curved at the end. Beak-wattle peg-shaped, even on both sides; there must be no jaw wattle. Shoulders broad and standing well out from the breast. Blues should be of an even and sound slaty-blue colour throughout—i.e., back, rump, and thighs, with black and narrow bars well defined. Silvers, brown bars.

I am glad to see committees are providing classes for young birds; the awards will therefore appear (to the uninitiated) more satisfactory, since only birds that have reached maturity will appear in the classes for old birds.—R. W. C. P.

RUSSIAN TRUMPETERS.

I HAVE just read your report of the Belfast Poultry Show, and venture to take up my pen in defence of the Russian Trumpeters. It seems to me that most of the Pigeon critics, including "WILTSHIRE RECTOR," have a grudge against them; and foot-feathering being apparently their weak point, always abuse them for that defect. Now, if these gentlemen would take the trouble to examine the birds they would find that in fully half the birds exhibited the feathers are broken and not half their real length. Unless taken the greatest care of, it is almost impossible to prevent this on account of the fragile nature of the feathering. The first-prize Mottle at Belfast had in the show pen feathers on his feet 5½ inches long; the third-prize Black 4½ inches. I have now in my loft an imported hen with feathers 5½, and one bred from imported birds 5 inches, so that I think I may assert that they are not so deficient in feet feathers as is stated. They are also usually spoken of as the new type of Trumpeters; I believe them to be simply a very pure and highly bred strain, and that our so-called English Trumpeters are only a cross and degenerate stock, perhaps bred from some previous importation before Pigeon shows were thought of.

Would twenty years of careful breeding and selection from the best English strain ever manufacture a bird equal to those imported? I think not.

That extravagant foot-feathering is not an evidence of purity of blood I am quite certain, as I bred a bird this year with stiff feathers on his feet fully 6 inches long, and a good voice, one of whose grandparents was a German Shielded Trumpeter with bare feet and no voice; in fact, you could not distinguish him from his father, a common White Trumpeter, except by his colour, a slaty Red.—TRUMPETER.

RABBIT-KEEPING.—No. 3.

FEEDING.

FIRST, as to the time of feeding. I find that twice a day is sufficient. The first feed is given about six o'clock a.m. in summer, and about half-past seven in winter. This should consist of wheat, buckwheat, or barley, with the addition of a small piece of turnip or carrot about the size of a hen's egg. In summer I give a small handful of clover instead of the roots. In feeding the above grains I alternate them; this gives the Rabbits a better relish for their food.

The night feed, which is given about six o'clock, is always oats, with a handful of cut hay (clover, if to be had), and when green food is scarce a small piece of turnip or carrot. If fresh clover can be obtained it is better to dispense with both hay and roots. In using green food never give it while wet. Cut it and let it wilt before using. Cut it when dry, and keep one day's supply ahead. Dry food, with privation of greens, water to drink, and cold temperature, sometimes occasions obstinate constipation. The warmer Rabbits are kept the better they thrive. When vegetables are gathered fresh they should not be given wet—unless very seldom, and when hay is given, which will drink up the moisture, and keep them sound without danger. Occasionally give for morning feed whole Indian corn. Peas soaked a few hours and then drained make another good change for the morning feed. In their season beet and carrot tops and pea haulm are a safe and good feed when not used in excess, and should not be given very often. The too free use of very green or wet vegetable food will be certain to produce the most disastrous results. Pot-belly, dropsy, and other diseases are sure to follow. Dandelion tops are greedily devoured, and are a most excellent feed. This is an almost certain cure of the disease known as red-water, and is an excellent corrective of other ills. Plantain leaves and sow thistle are also a safe and good feed if not used in excess.

A very little salt once a week mixed with their feed is beneficial. For condiments to tempt the appetite use fennel, sweet marjoram, parsley, and tea leaves dried; but these should be used in small quantities, and more as a tonic than a regular

diet. All grain or food that is left in the feed cups should be removed before putting in a fresh supply.

After having breathed on the feed and mussed it over, the Rabbit, who is a dainty animal, will not eat it, unless compelled by hunger. The feed-cups should be washed often, for cleanliness is one of the indispensable adjuncts to success. The same cup should not be used for both wet and dry feed unless thoroughly cleansed and dried after being used for the former.

Does with young should be more liberally fed, and with more nourishing diet than others. A slice of bread dipped in milk is a dainty treat for them, as well as being very nutritious. Also, young Rabbits after being weaned should be well tended to; kept clean and warm with plenty of food, and success is quite certain.

The key to success in Rabbit-keeping is:—

- 1, Dry food mainly.
- 2, Frequent change of diet.
- 3, Regularity in feeding.
- 4, Cleanliness.
- 5, Warmth in the winter season.
- 6, Large and well-drained hutches.

—P. J. KELLER.—(*American Fanciers' Journal*)

EFFECTS OF COLD AND DAMP ON BEES.

UPON a due appreciation of this subject much of the success of bee-keepers depends. If we consider bees as we should human beings, we should not err much in the treatment and construction of their domiciles. With proper ventilation, Langstroth, the great American apiarist, says, "No amount of cold that we ever have will injure bees;" and as he records the temperature of January, 1857, at 30° below zero, which is never reached in England, I do not think we need fear. Much has been said and written about the superiority of this or that hive-covering, whether it shall be wood, straw, carpet-rush-matting, or what not, but least of all is said about no covering at all more than shelter from the rain, and yet it is quite possible that this may be the most successful way after all. We all know a cold dry winter is more healthy than a mild wet one, even though the temperature of the latter should be many degrees higher, and a large airy bedroom with window open is preferable to a small close one with sand-bags and appliances to keep the cold out. If building a cow-house, stable, or fowl-house, should we reduce the cubical space by putting up a ceiling? No; on the contrary, we should appreciate the better ventilation that the uncovered rafters would give, even at the expense of a lower temperature. Langstroth cites a case where twenty hives were in a row, one suspended 20 inches from the ground, without a bottom board; the others in the usual condition for wintering. The whole got very wet; the nineteen died, and the one survived. In discussing this subject lately with one of our most successful apiarists, he mentioned that a hive which gave him a super of 76 lbs. weight this year was wintered without a crown board, but covered with an empty super, and, as the result showed, with advantage to the bees. Many bee-keepers have, at the recommendation of a well-known bee-master, this winter thrown away their crown boards and substituted a square of carpet, supplemented by what one disgusted bee-keeper styles "pile of marine stores to complete the quilt;" the result proves what was long ago discovered in America—the whole, from internal and external moisture, becomes a rotten mouldy mass, neither good for man nor bees, and the followers of this new fashion are fast discovering this. True it is that bought experience is most appreciated, but it is a pity that payment should be made by the lives of the poor bees.—JOHN HUNTER, *Eaton Rise, Ealing*.

DEPRESSION OF HIVE FRAMES.

IN reply to your correspondent "PEECHONE," who seems to question the possibility of a depression of a long frame from the weight of bees and their combs, I can only say that I have not a few instances in which the sinking is at least double of that upon which I based my calculations. Had the weather allowed an examination I would have given "PEECHONE" the exact measurements. By re-reading my letter he will find that I made no prediction, but gave simply the data and results of a calculation, which in itself would have been hardly suited to your columns, since it involves a knowledge of trigonometry and natural philosophy; but should "PEECHONE" desire it he can have it of me privately. The hives in which these depressions have occurred take Quinby frames, and were purchased of Mr. Abbott, but have top bars thinner and less stable than those of his last pattern. From experiments made I think the difficulty I have indicated as extremely likely, but the fact that combs are occasionally built to the floorboard, as "PEECHONE" admits, is in itself an all-sufficient reason for retaining the bottom rail unless some considerable advantage is to be gained by abandoning it. The idea that the comb from its formation would tend to support the top bar, as "PEECHONE" asserts, is utterly erroneous, since

the comb is generally commenced in the centre, and continues by its growing weight to increase the sagging as the work progresses.

"PEECHONE" asks me how the bottom rail assists ventilation. The cluster in winter, if a bottom rail be used, does not extend down to the floorboard, so the entering air passing under the whole mass percolates through it, as it warms and attains ascensive power. In full skeps and in the hives in question the bees commonly touch the floorboard, and so would obtain new supplies of air on the side of the cluster only. It would take far more time and space than are at my disposal to prove the disadvantage of this; but as I have already said, "experience has shown that good ventilation beneath the combs greatly aids in wintering," and all who are acquainted with American bee literature will bear testimony to the corroboration which this statement has received.

"PEECHONE" puts a construction on the latter part of my letter which it cannot be made to bear, and then informs me I am in error; but even had I stated what he seems to have supposed the error is his, for he is evidently not aware that my hive to which was awarded first prize, a most complete bar-frame hive, at Crystal Palace Show, had at the time the Show occurred been made twelve months, and that a swarm of bees had built in it during the summer. They and their combs were displaced in order that their house might be exhibited.

"PEECHONE's" concluding sentence fairly puzzles me. He says, "Strange to say his has the bottom rail." It appears to me that it would be passing strange if it had not.—F. CHESHIRE.

THE HONEY EXTRACTOR OR SLINGER.

I HAVE never bought, sold, owned, or used a slinger, but in the hands of acquaintances I have seen the combs of a large frame hive taken out, emptied, and replaced, without fuss or mess, in a very few minutes; and at intervals during the three-days Show at the Crystal Palace the operation was performed with satisfaction before the gaze of thousands; indeed it was witnessed at the Palace by the gentleman to whom the instrument used by Mr. Pettigrew belongs, who bought it then and there for home use. I presume he would not have done this unless he had been more satisfied than Mr. Pettigrew. I give the latter gentleman credit for good faith in testing fairly, as far as the materials at his command and the time of year would allow, but these very conditions made the trial essentially a most unfair one. No maker or inventor of extractors, so far as I know, has ever claimed for this machine that it could work successfully on old honey that had been allowed to get set, or with satisfaction on the loose combs cut from straw skeps. It is essentially an adjunct to frame hives, and with honey in the gluey condition of that re-liquified by Mr. Pettigrew I am not surprised at failure. With regard to the extracted honey being full of small pieces of comb, this was evidently from want of dexterity in manipulation, and would be avoided with more practice. Moreover, it should be remembered that there are three or more patterns of extractors in the field; and that used by Mr. Pettigrew, although I agree with him in saying is a good one, is not every one, nor the one which gained the prize at the Show.

The idea and principle of the honey extractor I look upon as valuable, but the machine as at present made is a bulky, clumsy affair, putting one in mind of a garden engine. I hope to find the old maxim, "out of small things springeth great" reversed, and some day to see a small thing from the great; and indeed, I hear it whispered, of an extractor in hand equally efficient that may be stood upon the table, occupying little more than a foot of surface. When we get something like that, I have no doubt it will be in general use where frame hives are in vogue. Where is Mr. Pettigrew's authority for saying "The patrons of the slinger tell us that swarms spend their first year in filling the bar frames with comb?" I neither think the inexperienced or the experienced bee-keeper would think this either reasonable or inviting.—JOHN HUNTER, *Eaton Rise, Ealing*.

TRAINING SQUIRRELS.

THE squirrels must be young, or else all attempts to train them will be fruitless. Judging from your description of their tameness that they are young, as old squirrels, and old ground squirrels especially, seldom become tractable, we will proceed to give directions for teaching them a few simple tricks:—

First, accustom them to your whistle, and teach them to come immediately to you whenever you call or whistle for them. This can be done by reducing the quantity of their food, not so as to starve them, but only so as to sharpen their appetites. After they have been dieted for a few days you will notice how much spryer and brighter they have grown. Hold a nut kernel or a grain of corn in your hand, and give a sharp distinct whistle, at the same time showing them the food. With a leap they will come to get the food; give it to the one who first reaches you. Repeat this lesson until they become familiar with the meaning

of the whistle. Generally reward the quickest with a grain of corn or a chestnut. We will now suppose that you have the squirrels perfectly subjected to your will; that they will come when you whistle, and obey your commands with dispatch. The remaining parts of their education should be taught to each separately. Place one upon a table, and gently force him into a reclining position. If he attempts to rise again gently force him back into his former state, crying "Down!" as you do so. He will soon learn the meaning of "Down!" and on the utterance of the word will instantly sink upon his belly. By a similar method he should be taught to sit erect upon his haunches.

The rope trick is quite amusing when well done. To teach a squirrel this, fasten a rope to a ceiling so that the end of the rope will reach the floor. String a few chestnuts, show them to the squirrel, and then tie them to the rope (near the top). Now place bushy at the foot of the rope; in a trice he will be up after the chestnuts. Repeat the lesson, saying "Mount!" as you place him at the foot of the rope. He will soon associate the command, "Mount!" with the rope-climbing, and on seeing the rope and hearing the word will rapidly ascend. Reward him with a chestnut whenever he performs the feat to suit you.

Another pleasing trick is jumping from a table to your shoulder. Place the squirrel on a table, and cry, "Down." Put a nut on your shoulder, and give the signal for him to come to you. If he jumps on the floor and attempts to reach the nut by crawling up on your leg replace him, and cry "Down!" Make a bridge from the table to your shoulder with your arm, and whistle for him to come to you. This time he will ascend to your shoulder by the way of your arm. Repeat the lesson, and increase the distance from the table, till he will jump to your shoulders from a table even if the distance is so far as across a small room.

Now, he must be taught to jump upon the table. This can be done in the same manner as he was taught on hearing a peculiar whistle to come to you. Without further hints you ought to be able to devise any number of amusing tricks to teach your squirrels. Bear in mind two rules—Never overfeed your pets, or allow them to be handled by strangers.—(*American Fanciers' Journal*.)

PRODUCTIVE BANTAM.—I wrote to you in August, stating the fact of a Game Duckwing Bantam hen having laid at that time 135 eggs. I now write to inform you that she has laid in the space of twelve months two hundred eggs.—J. STOKES, *Ipswich*.

OUR LETTER BOX.

GREAT YARMOUTH SHOW.—Mr. P. Haines, Dies, informs us that he was awarded the second prize in the class for Light Brahma hens.

CANTERBURY SHOW.—Mr. W. Jacobs, Shepherdswell, informs us, that though not inserted in the official prize list, that his Aylesbury Ducks were awarded the five-guinea cup.

TREDEGAR SHOW.—The second prize for Turkeys we see is stated to have been awarded to Miss J. Milward, but it was omitted by our reporter.

DARK BRAHMAS AT CARMARTHEN.—We are informed that the first prize was taken by H. Feast, Swansea, second by J. H. Watkins, Hereford, with adults; D. E. Williams's Chester third-prize pen, and F. L. Green's, Osklands, Carmarthen, highly commended, being this year's birds. The medal in Class 22 was awarded to a Dark Brahma cockerel belonging to A. T. Waters, The Phoenix, Kidwelly.

HIVES (T. B.).—Remarks on the merits and drawings of hives, whether of wood or straw, we shall readily insert. We only closed the controversy because every letter we received was either disguised by personalities, or written as if the writer thought no one had a right to differ from him in opinion.

CANARIES AND HOW THEY ARE KEPT.—"M. G." need not be surprised if his Canaries occasionally cast some of their feathers through being kept in a room with a fire during the daytime, and enduring the cold at night 2° below freezing-point as stated. The covering over the cages at night would not be of much advantage unless the room is draughty. It will not make up for the difference between the artificial heat during the day and the thermometer at about 32° or more during the night. Of two evils, the fire would be more essential at night; but to suddenly abolish it would be detrimental to the birds. The continual changes will certainly tend to weaken the constitution of the birds, and bring about asthma and premature deaths. Canaries will endure much cold weather, and enjoy tolerable good health beneath a roof free from draughts of cold air. Our own birds fly in a large room, the topmost one of the house, are hardy, robust, and in good feather, and sport in a cold bath as free as Ducks, even during the present inclement season. We can back-up our experience with that of others; one fancier in particular we will refer to, who, for upwards of a dozen years, has kept his birds in a detached brick building during summer and winter, the only drawback during frosty weather being that he has had occasionally to break the ice for the birds to obtain water, or the ice itself has cracked the fountains. His birds always enjoy good health. This is a pretty fair test as to the amount of cold weather Canaries will stand. The birds above referred to are of the Norwich and Lizard breeds. If "M. G." could keep up an even temperature during day and night his Canaries would not be liable to so much risk. Birds rarely do so well, or continue breeding so long during the summer, if they have been kept in an artificial heat during winter and spring.

SEED FOR CANARIES, BULLFINCHES, LINNETS, &c. (W. F., Belfast).—We have examined the three kinds of wild seeds forwarded. One of the three

sorts is understood amongst bird-fanciers in many parts of England as "redlock," a kind of wild rape found in corn fields. During the winter months especially many fanciers make a practice of occasionally throwing a handful or so into the cages for the birds to eat, which plan is considered better than supplying it either in a fountain or seed-hopper, owing to the amount of rubbish mixed with it. It is a somewhat stimulating kind of seed, and is suitable either for Canaries, Goldfinches, Bullfinches, Siskins, or Linnets. One of your samples resembles the above-named "redlock" more than anything we know of. As to the bright, black, flat, heart-shaped seed (the second kind), we have before seen it mixed among the "redlock" seed when given to the birds, and this fact leads us to think that it is not of an injurious tendency. With respect to the smaller or third kind forwarded, which is of a brown colour, triangular-shaped, and sharply pointed at each end, we must confess we are somewhat doubtful whether it would be wisdom to give it to Canaries. Possibly some of the Finch tribe may partake of it in their wild and natural state; still, like yourself, we are anxious to know whether the seed would be suitable. The experiment is worth a trial; and if you do not try it yourself, be at the expense of forwarding a quart of the three kinds to our office, and we will cause them to be tested and let you know the result. Canary seed at the present time is enormously high in price, and if other food can be found fit for cage birds so much the better for fanciers, who now-a-days have to put their hands deeper down into their pockets for eggs and cayenne pepper.

METEOROLOGICAL OBSERVATIONS,

CAMDEN SQUARE, LONDON.

Lat. 51° 32' 49" N.; Long. 0° 8' 0" W.; Altitude, 111 feet.

DATE.	9 A.M.					IN THE DAY.					Rain.
1874.	Barom- eter at 32° and Sea Level.	Hygrome- ter.		Direction of Wind.	Temp. of Soil at 1 foot.	Shade Tem- perature.		Radiation Temperature.			
Dec.		Dry.	Wet.			Max.	Min.	In sun.	On grass		
	Inches.	deg.	deg.		deg.	deg.	deg.	deg.	deg.	In.	
We. 23	30.006	19.6	19.6	N.W.	85.1	28.2	18.4	38.8	20.0	0.045	
Tb. 24	29.548	33.8	33.8	S.	34.8	36.2	19.5	37.4	13.9	0.020	
Fri. 25	29.773	34.0	33.6	N.	34.8	36.2	33.8	38.3	30.7	—	
Sat. 26	30.081	28.0	27.7	N.W.	34.8	34.1	24.8	56.6	24.8	—	
Sun. 27	30.177	31.8	31.4	N.	34.8	34.1	27.6	39.2	28.0	—	
Mo. 28	30.253	32.2	32.0	S.	34.8	33.8	27.2	33.2	27.0	0.030	
Tu. 29	30.232	26.0	26.0	S.E.	34.9	32.4	25.4	42.5	27.1	—	
Means	30.002	29.6	29.4		34.9	33.4	25.2	37.3	25.2	0.095	

REMARKS.

23rd.—Fine frosty morning—very sharp; fair all day; foggy in evening; and rain at midnight.

24th.—Overcast, a little sleet early; dull all day, and slight thaw.

25th.—Fair all day; colder in evening.

26th.—Fine frosty morning; foggy about 2 P.M.; rather warmer at night.

27th.—Fine frosty day.

28th.—Very dark morning; sleet, and afterwards slight snow, throughout the day.

29th.—Sharp frost, and although the sun was bright and warm (42.8°) the roads remained hard and the ground covered with snow. Very cold in the evening.

A fine sharp winter's week.—G. J. SYMONS.

COVENT GARDEN MARKET.—DECEMBER 30.

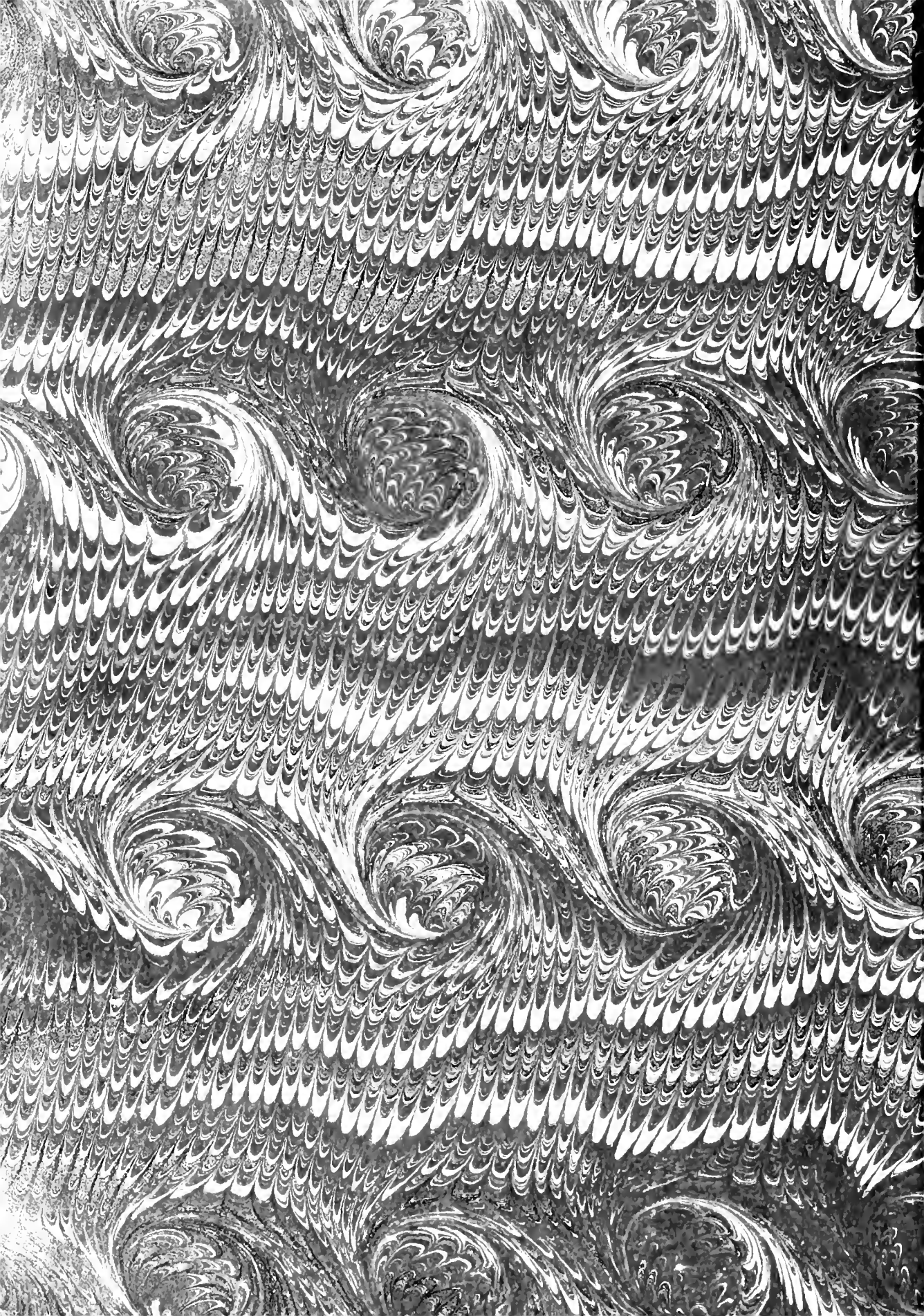
The market has been well supplied with both fruit and vegetables this Christmas, prices being generally lower than usual. Grapes and Pines are plentiful for the time of year, but the supply of dessert Peas is nearly over.

FRUIT.

	s. d.	s. d.		s. d.	s. d.
Apples.....	10 to 12	0 0 0	Malberries.....	1 lb.	0 10 to 0 0
Apricots.....	doz.	0 0 0	Nectarines.....	doz.	0 0 0
Cherries.....	1 lb.	0 0 0	Oranges.....	100	4 0 10 0
Chestnuts.....	bushel	10 0 20	Peaches.....	doz.	0 0 0
Cufrants.....	sieve	0 0 0	Pears, kitchen.....	doz.	2 0 3 0
Black.....	do.	0 0 0	dessert.....	doz.	2 0 4 0
Figs.....	doz.	0 0 0	Pine Apples.....	lb.	2 0 5 0
Fibers.....	lb.	1 0 1 6	Plums.....	1 sieve	0 0 0
Cobs.....	lb.	1 0 1 6	Quinces.....	doz.	0 0 0
Gooseberries.....	quart	0 0 0	Raspberries.....	lb.	0 0 0
Grapes, bothouse.....	lb.	4 0 8 0	Strawberries.....	1 lb.	0 0 0
Lemons.....	100	8 0 12 0	Walnuts.....	bushel	10 0 2 0
Melons.....	each	1 0 3 0	ditto.....	100	1 0 16 0

VEGETABLES.

	s. d.	s. d.		s. d.	s. d.
Artichokes.....	doz.	8 0 to 0 0	Leeks.....	doz.	0 8 to 0 0
Asparagus.....	100	0 0 0	Lettuce.....	doz.	1 0 2 0
French.....	per bundle	0 0 0	Mushrooms.....	pottle	0 9 2 0
Beans, Kidney.....	sieve	0 0 0	Mustard & Cress, pannel	0	2 0 0
Broad.....	bushel	0 0 0	Onions.....	bushel	2 0 6 0
Beet, Red.....	doz	1 0 0	Pickling.....	quart	0 6 0 0
Broccoli.....	bundle	0 6 1 6	Parley per doz.	bunches	4 0 6 0
Brussels Sprouts 1 sieve	3 0	4 0 0	Parasnis.....	doz.	0 8 1 0
Cabbage.....	doz.	1 6 2 6	Peas.....	quart	0 0 0
Carrots.....	bunch	0 6 8 0	Potatoes.....	bushel	2 0 4 0
Capsciums.....	100	0 0 0	Kidney.....	do.	3 0 6 8
Cauliflower.....	doz.	4 0 8 0	Radishes.....	doz. bunches	1 0 1 0
Celery.....	bundle	1 6 2 0	Rhubarb.....	bundle	1 0 1 0
Corn-cobs.....	doz. bunches	4 0 6 0	Salsafy.....	bundle	1 6 0 0
Cucumbers.....	each	2 0 3 0	Scorzonera.....	bundle	1 0 0 0
Pickling.....	doz.	0 0 0	Sea-kale.....	basket	2 0 3 8
Endive.....	doz.	2 0 0 0	Shallots.....	lb.	0 8 0 0
Fennel.....	bunch	0 3 0 0	Spinach.....	bushel	0 0 4 0
Garlic.....	lb.	0 6 0 0	Tomatoes.....	doz.	0 0 0 0
Herbs.....	bunch	0 3 0 0	Turnips.....	bunch	0 6 0 0
Horseradish.....	bundle	8 0 4 0	Vegetable Marrows.....	doz.	0 0 0 0





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